HENSEL

PASSION FOR POWER.

INTERNATIONAL CATALOGUE

No. 15



made in GERMANY since 1931

The assignment of box walls is effected via wall symbols, that are assigned to each product. The individual figures 1 give an indication, which wall is concerned.

Overview enclosure walls

DK Cable Junction Boxes

1 
1 x M 20

2 
1 x M 20/25

3 
2 x M 20

4 
2 x M 20/25

5 
1 x M 20/25
1 x M 25/32

6 
2 x M 25/32

7 
2 x M 32

8 
2 x M 32/40

9 
2 x M 40

10 
2 x M 20/25
1 x M 25/32

11 
2 x M 20/25
1 x M 32/40

12 
1 x M 20/25
1 x M 25/32
1 x M 40/50

13 
1 x M 20/25
2 x M 40/50

14 
3 x M 25/32

15 
2 x M 25/32
1 x M 40/50

16 
3 x M 32/40

17 
4 x M 25/32
1 x M 40/50

18 
4 x M 25
3 x M 40/50

19 
8 x M 32
4 x M 40/50

20 
2 x M 20
10 x M 25
1 x M 32/40

21 
1 x M 20
4 x M 25
1 x M 32/40
3 x M 40/50

22 
1 x elastic membrane

23 
1 x elastic membranes

24 
1 x elastic membranes

25 
1 x cable entry via removable grommet

26 
2 x cable entry via removable grommets

27 
3 x cable entry via removable grommets

28 
4 x cable entry via removable grommets

29 
1 x M 63

30 
2 x M 50

31 
1 x up to ø 35 mm
4 x up to ø 16 mm

32 
1 x M 20

33 
2 x M 20

34 
1 x M 20/25

35 
2 x M 20/25

36 
1 x M 20/25/32

37 
2 x M 20/25/32

38 
3 x M 20/25/32

39 
2 x M 25/32/40

40 
3 x M 25/32/40

41 
2 x M 25/40/50

42 
3 x M 25/40/50

43 
2 x M 25/40/63

44 
3 x M 25/40/63

KV Small Distribution Boards

1 
3 x ø 7-16 mm

2 
4 x ø 7-16 mm,
1 x ø 10-20 mm

3 
4 x ø 7-16 mm
2 x ø 10-20 mm
1 x ø 10-24 mm

4 
8 x ø 7-16 mm
2 x ø 10-20 mm
1 x ø 10-24 mm

5 
8 x ø 7-12 mm
8 x ø 7-14 mm
4 x ø 12-20 mm
1 x ø 16,5-29 mm

6 
8 x ø 7-12 mm
8 x ø 7-14 mm
4 x ø 12-20 mm
1 x ø 16,5-29 mm
8 x ø M 20

7 
1 x M 20

13 
2 x M 20
1 x M 25/32

14 
2 x M 20/25
1 x M 25/32

15 
4 x M 20/25
1 x M 25/32

16 
2 x M 20
2 x M 25
1 x M 32/40

17 
4 x M 20
2 x M 20/25
1 x M 32

18 
12 x M 20
2 x M 20/25
1 x M 32

19 
4 x M 20
2 x M 25/32
1 x M 32/40

20 
6 x M 20
2 x M 25/32
1 x M 32/40

21 
2 x AVS 16/
EVS 16

ENYSTAR Distribution Boards

1 
(180 mm)
wall opening:
100 x 80 mm

2 
(270 mm)
wall opening:
190 x 80 mm

3 
(360 mm)
wall opening:
280 x 80 mm

4 
(540 mm)
wall opening:
2 x 190 x 80 mm

Mi Power Distribution Boards

1 
1 x M 20
1 x M 32/40

2 
2 x M 20
10 x M 25
1 x M 32/40

3 
4 x M 25
3 x M 40/50

4 
1 x M 20
4 x M 25
1 x M 32/40
3 x M 40/50

5 
8 x M 32
4 x M 40/50

6 
4 x M 20
20 x M 25
2 x M 32/40

Meaning of icons

Some properties of the products are illustrated by icons. The meaning of the icons canw be found in the table.

Material

ASA/PC Blend — Polycarbonate Blend

Duro-plastic — Duroplast

Stain-less steel — Stainless steel

Lami-nated paper — Laminated paper

PA — Polyamide

PC — Polycarbonate

PP — Polypropylene

PS — Polystyrol

Sheet steel — Sheet steel

TPE — TPE Evoprene

Colour

RAL 2003 — Pastel Orange, RAL 2003

RAL 3000 — Flame Red, RAL 3000

RAL 7016 — Anthracite Grey, RAL 7016

RAL 7032 — Light Grey, RAL 7032

RAL 7035 — Light Grey, RAL 7035

RAL 9005 — Deep Black, RAL 9005

RAL 9011 — Graphite Black, RAL 9011

RAL 9016 — Traffic White, RAL 9016

Degree of protection

IP 31 — IP 31

IP 44 — IP 44

IP 54 — IP 54

IP 55 — IP 55

IP 55 ESM — IP 55 using ESM

IP 65 — IP 65

IP 65 ADM — IP 65 using ADM

IP 65 Nema Type 4X — IP 65 with Nema 4X for UL/CSA approval

IP 66 — IP 66

IP 66 ASM — IP 66 using ASM

IP 66/67 — IP 66/67

Protection class

II, total insulated

Application Area

”weatherproof“, for outdoor installation

Contents

	Introduction / Service	**3 - 7**
	ENYCASE® **DK Cable Junction Boxes** 1.5 up to 240 mm², IP 54-67	**8 - 153**
	ENYBOARD **KV Small Distribution Boards** up to 63 A, 3 - 54 modules, IP 54-65	**154 - 243**
	ENYSTAR® **Distribution Boards with door** up to 250 A, IP 66	**244 - 317**
	ENYMOD **Mi Power Distribution Boards** up to 630 A, IP 54-65	**318 - 381**
	ENYFIT **Cable Entry Systems**	**382 - 407**
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	List of types	**424 - 432**

Leading through innovation and quality



The Gustav Hensel GmbH & Co. KG is a leading company specialising in the manufacture of innovative electrical installation and power distribution systems for facility equipment of buildings. Founded in 1931, Hensel today represents a company group which is active worldwide and has about 800 employees, 550 of which are in Germany.

In addition to the parent company in Lennestadt, Germany, subsidiaries and representatives in important foreign markets ensure a continually strong international presence.



Wherever environmental influences, dust and humidity require a particulary sophisticated installation technology, Hensel with its innovative solutions enables the reliable and safe distribution of engergy.
The range of modern electrical installation and power distribution systems for national and international applications has made Hensel into one of the market leaders in the distribution of electrical energy in the low voltage sector.

State of the art technology, clever logistics

- State-of-the-art and automated plastic injection-molding machinery at two sites
- Advanced manufacturing processes used in metal processing and surface coating
- Highly qualified employees and a modern machinery guarantee state-of-the-art injection mould and metal working tools
- Coordination and control of all logistics and storage processes, shipping all over the world

Internationally represented

Subsidiaries abroad:

- Czech Republic, Hungary, Poland, People's Republic of China, India, Turkey, Russia
- Partners in more than 60 countries



Electrotechnical products of highest quality and reliability

Wherever dusty and humid environmental conditions place high demands on the electrical installation, products of highest quality conforming to standards are required for a reliable and safe distribution of electrical energy in the low voltage sector.

VDE Certified Management System 79300/QM/03.95 DIN EN ISO 9001:2008

High quality standards guarantee our customers' competitive advantage in the future.

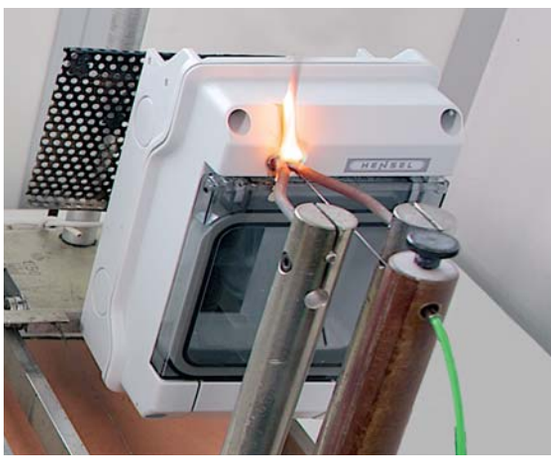
All Hensel production facilities are certified and meet the requirements of **DIN EN ISO 9001:2008**

Internal quality management

- Advanced test methods

Hensel stands for tested quality

- Durability of plastic materials
- Short-circuit withstand capability
- Tests on electromagnetic susceptibility (EMC tests)
- Fire behaviour
- Limits of temperature rise
- Functional tests
- IP degree of protection (dust and water protection)
- Impact resistance
- Temperature resistance
- Corrosion-proof
- Dimensions check via structured light projection





made in GERMANY since 1931

Areas of application

Hensel products guarentee safety in

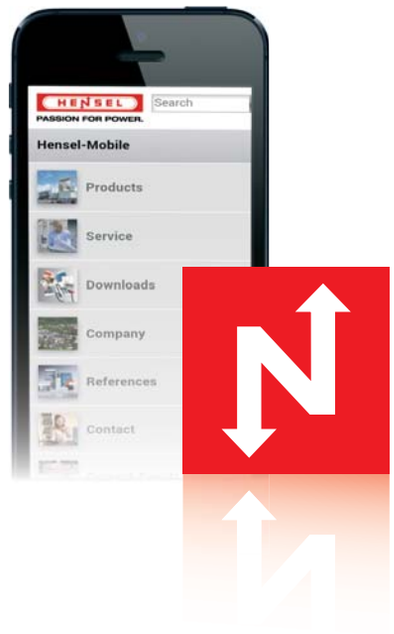
- Agriculture and Farming
- Automotive Industries
- Banks and Insurance Offices
- Cement Factories
- Coldstorage Facilities
- Gas Stations and Pipelines
- Hospitals and Clinics
- Hotels and Cinema Complexes
- Industrial, Commercial and Company Buildings
- Leisure and Commercial Centres (Malls)
- Marine Environments
- Metal, Wood and Paper Processors
- Mining
- Photovoltaic Plants
- Power Stadions
- Residential and Non-residential Buildings
- Schools and Universities
- Stadia and Sport Centres
- Telecommunications
- Traffic Infrastructure Buildings
- Tunnels and Road Construction
- Water and Waste Water Treatment Plants



Hensel APP

Download our free Hensel APP and be always up to date.

Available in the Google Play Store and the official Apple iTunes store .



Videos

Discover our mounting videos, product benefits and manuals for our products in brief, informative spots on **youtube.com/henselelectric**

Learn more about our company at our promotional video!

Downloads

On our download portal we offer various catalogs, product information and informational materials.



Social Media

Hensel News on Facebook!
facebook.com/henselelectric

Follow us on Twitter!
twitter.com/henselelectric

Hensel videos on YouTube!
youtube.com/henselelectric

www.hensel-electric.de

Exhibitions

International and national



Trainings

Highly qualified lecturers, modern seminar and training rooms and the latest presentation techniques.





Planning aids

- Planning software
  ENYGUIDE
  www.enyguide.eu
- **Portal | 61439**
  Support platform for distribution technology keeps new IEC 61439 standard under control at www.hensel-electric.de/61439
- Guide for design and assembly of distribution boards up to 630 A according to IEC 61439 / EN 61439

Customized solutions

- Enclosures on customer request for individual applications
- Individual solutions that comply to standards



Mobile exhibitions

Mobile exhibitions on system solutions and new developments internationally and nationally



Your specialist partner

Quick support for acute problems on-site




M 20
M 20

DK Cable Junction Boxes

• from 1.5 up to 240 mm²
• degree of protection IP 54-67
• VDE-tested in accordance with IEC 60670-22

Selection table for cable junction boxes 12 - 13
Overview of box walls 14

with or without terminals
from 1.5 up to 240 mm², cable entry via metric knockouts 15 - 22

box walls without knockouts
from 1.5 up to 50 mm² 23 - 30

with FIXCONNECT® terminal technology for copper conductors
from 1.5 up to 16 mm² 31 - 32

cable / conduit entry via metric knockouts for armoured cables
from 1.5 up to 50 mm² 33 - 36

with elastic membranes and integrated M20 thread
up to 4 mm² 37 - 38

for cable trunking and conduit installation
from 1.5 up to 4 mm², IP 54 39 - 42

cable entry via elastic membranes
from 1.5 up to 4 mm² 43 - 48

cable entry via elastic membranes in bottom and box walls
from 1.5 up to 16 mm² 49 - 52

for aluminum (Al) and copper (Cu) conductors
from 1.5 up to 240 mm² 53 - 57

”weatherproof“ for outdoor installation NEW
from 1.5 up to 50 mm² 58 - 91

”weatherproof“ for outdoor installation
approved for United States and Canade (UL/CSA)
from 1.5 up to 50 mm² 92 - 94

”waterproof” for encapsulation NEW
from 1.5 up to 10 mm², set sealing compound 95-106

tested for intrinsic fire resistance
from 0.5 up to 50 mm² 107-116

special applications
from 1.5 up to 25 mm², for safety lighting circuits,
for equipotential bonding conductors 117-119

with main line branch terminals for copper conductors
from 25 up to 35 mm² 120-122

with terminal blocks for aluminium (Alu) and copper conductors (Cu)
from 1.5 up to 4 mm² 123-126

Accessories 127-136

Technical details cable junction boxes 137-153

Info **Further technical information can be found on the Internet**
www.hensel-electric.de -> Products

ENYCASE®





ENYCASE KF

ENYCASE WP

1931



1950



made in GERMANY since 1931

www.enycase.eu

The evolution of the original: ENYCASE®

We have raised the original to the next level of evolution, followed up on impulses from practical experience and rendered them in the form of new features in the ENYCASE cable junction boxes. They are the embodiment of our very own competency because our know-how flourishes particularly in demanding settings, under difficult conditions, in industry and trade.

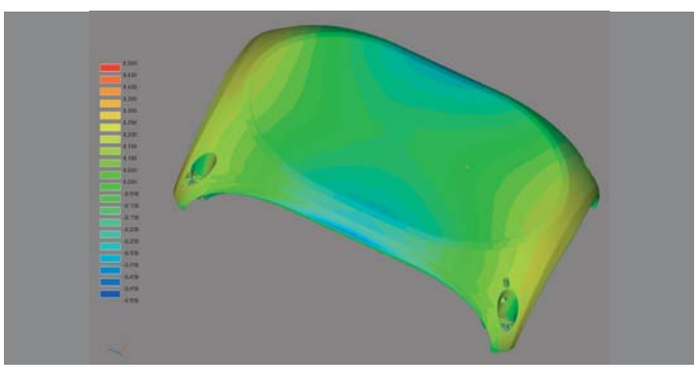
The series of innovative and high-quality junction boxes made of state-of-the-art materials are manufactured by means of pioneering production procedures. Our products have made their case for many generations. It is our claim to always continue the development and optimise our original for you.

ENYCASE Cable Junction Boxes awarded for high design quality

reddot award 2015 winner

GOLD 2015 pro-K award

The new ENYCASE®-programme starting from page 58







NEW



Eight enclosure sizes in grey and black.

Applications		Electrical functions: Branching and connecting of copper conductors	Electrical functions: Branching and connecting of aluminium and copper conductors
▪ In rooms with dry climate ▪ In damp and wet environments ▪ Protected outdoors (refer to technical details) ▪ On flameable parts of buildings ▪ In buildings with mainly inflammable materials ▪ In areas with a high risk of fire	 	Pages 16-51	Pages 54-57
▪ Cable trunking installation		Pages 40-41	
NEW ▪ "Weatherproof", for outdoor installation ▪ Improved behavoiur in case of fire "flame-resistant" and "halogenfree"		Pages 62-92	
NEW ▪ "Waterproof" for encapsulating, unprotected outdoors		Pages 98 - 105	
▪ Intrinsic fire resistance		Pages 108-114	
▪ Safety lighting circuits		Pages 118	
▪ Equipotential bonding	PA	Page 119	
▪ UL Approval	UL		

Connecting of solid conductors and stranded conductors	Combining multiple control wires to one control cable	2 circuits in one cable junction box	Main line branch terminals	Without terminals	Box walls without knockouts
Page 54 Pages 124-126	Pages 124-126	Pages 40-41	Page 121-122	Pages 21-22, Pages 24-27, Page 34, Page 38 DN 2030, DN 2000, Page 41, Page 45, Page 47, Pages 50-51 DE 9220, DE 9221, Pages 69-71, Pages 78-80, Pages 82-87, Page 94	Pages 24-27, Page 36, Pages 82-87, Page 94
		Pages 40-41 DP 9220, DP 9221, DP 9222		Page 41	
				Pages 69-71 Pages 78-80 Pages 82-87	Pages 82-87
				Page 94	Page 94

Assignment of box walls:

The assignment of box walls is effected via wall symbols that are assigned to each product. The individual figures 2 give an indication, which wall is concerned.



All box walls are listed in the fold-out of the coverpages.

Wall 1
1 x M 20



Wall 2
1 x M 20/25



Wall 3
2 x M 20



Wall 4
2 x M 20/25



Wall 5
1 x M 20/25
1 x M 25/32



Wall 6
2 x M 25/32



Wall 7
2 x M 32



Wall 8
2 x M 32/40



Wall 9
2 x M 40



Wall 10
2 x M 20/25
1 x M 25/32



Wall 11
2 x M 20/25
1 x M 32/40



Wall 12
1 x M 20/25
1 x M 25/32
1 x M 40/50



Wall 13
1 x M 20/25
2 x M 40/50



Wall 14
3 x M 25/32



Wall 15
2 x M 25/32
1 x M 40/50



Wall 16
3 x M 32/40



Wall 17
4 x M 25/32
1 x M 40/50



Wall 18
4 x M 25
3 x M 40/50



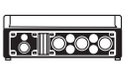
Wall 19
8 x M 32
4 x M 40/50



Wall 20
2 x M 20
10 x M 25
1 x M 32/40



Wall 21
1 x M 20
4 x M 25
1 x M 32/40
3 x M 40/50



Wall 22
1 x Elastic membranes



Wall 23
2 x Elastic membranes



Wall 24
3 x Elastic membranes



Wall 25
1 x Removable system



Wall 26
2 x Removable system



Wall 27
3 x Removable system



Wall 28
4 x Removable system



Wall 32
1 x M 20



Wall 33
2 x M 20



Wall 34
1 x M 20/25



Wall 35
2 x M 20/25



Wall 36
1 x M 20/25/32



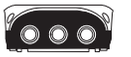
Wall 37
2 x M 20/25/32



Wall 38
3 x M 20/25/32



Wall 39
2 x M 25/32/40



Wall 40
3 x M 25/32/40



Wall 41
2 x M 25/40/50



Wall 42
3 x M 25/40/50



Wall 43
2 x M 25/40/63



Wall 44
3 x M 25/40/63





- Variable terminal mounting positions (5 positions) and new terminal technology



- Stainless steel cover screws with quick fastening metric thread. Reducing cover fixing time.



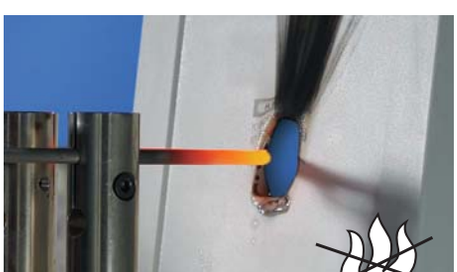
- Hensel cable junction boxes can in general also be used in poor environmental conditions by using IP 65 cable glands AKM/ASM.



- Included accessories as listed: grommets ESM = IP 55



- Labelling system for circuit description
- Label template on the Internet at www.hensel-electric.de - in the 'Downloads' area.



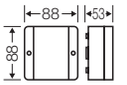
- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C / 960 °C, flame-retardant, self-extinguishing



D 9025

1.5-2.5 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 3 Wall 3 (3, 1)



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- included cable entry: 4 ESM 20, sealing range Ø 6-13 mm
- for normal environment and protected outdoor

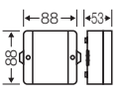
rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm



D 9125

1.5-2.5 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 3 Wall 3 (3, 1)



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- included cable entry: 4 ESM 20, sealing range Ø 6-13 mm
- with external fixing
- for normal environment and protected outdoor

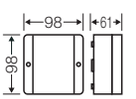
rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm



D 9045

1.5-4 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 4 Wall 4 (4, 2)



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol, 2 x 6 mm² sol
- included cable entry: 4 ESM 25, sealing range Ø 9-17 mm
- for normal environment and protected outdoor

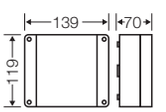
rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm



K 9065

2.5-6 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 10 Wall 5 (6, 10)



- with terminals
- 5-pole per pole 4 x 2.5 mm² sol, 4 x 4 mm² sol, 3 x 6 mm² sol, 2 x 10 mm² sol
- included cable entry: 3 ESM 32, sealing range Ø 9-23 mm
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.5 Nm

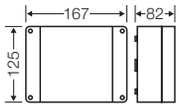


K 9105

4-10 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 14 / 6 Wall 6 / 10

- with terminals
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- included cable entry: 3 ESM 32, sealing range Ø 9-23 mm
- for normal environment and protected outdoor



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	63 A
tightening torque for terminal	2.0 Nm

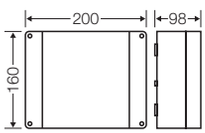


K 9255

10-25 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 16 / 8 Wall 8 / 11

- with terminals
- 5-pole per pole 6 x 10 mm² sol, 4 x 16 mm² s, 4 x 25 mm² s, 2 x 35 mm² s
- included cable entry: 3 ESM 40, sealing range Ø 17-30 mm
- for normal environment and protected outdoor



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	102 A
tightening torque for terminal	3.0 Nm

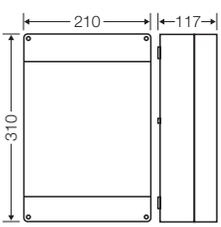


K 9502

10-35 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 12 / 17 Wall 17 / 12

- with terminals
- 5-pole per pole 4 x 10 mm² sol, 4 x 16 mm² s, 4 x 25 mm² s, 2 x 35 mm² s
- included cable entry: 3 ESM 40, sealing range Ø 17-30 mm
- for normal environment and protected outdoor



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	102 A
tightening torque for terminal	3.0 Nm

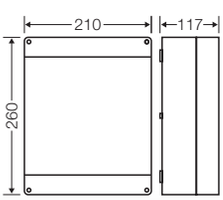


K 9355

16-35 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 15 / 13 Wall 13 / 15

- with terminals
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 2 x 50 mm² s
- included cable entry: 3 ESM 40, sealing range Ø 17-30 mm
- for normal environment and protected outdoor



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	125 A
tightening torque for terminal	12.0 Nm

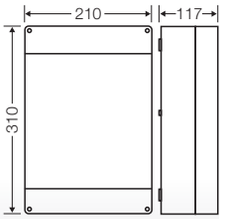


K 9504

16-50 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 12 / 17 Wall 17 / 12

- with terminals
- 4-pole per polel 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s
- cable entries via knockouts, order AKM/ASM separately (see cable entry systems LES)
- for normal environment and protected outdoor



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	150 A
tightening torque for terminal	12.0 Nm

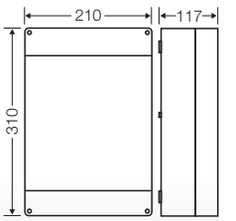


K 9505

16-50 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 12 / 17 Wall 17 / 12

- with terminals
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s
- cable entries via knockouts, order AKM/ASM separately (see cable entry systems LES)
- for normal environment and protected outdoor



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	150 A
tightening torque for terminal	12.0 Nm

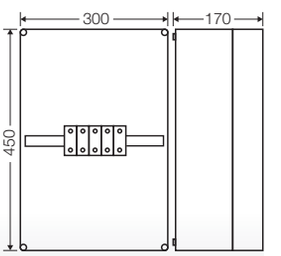


K 7055

16-50 mm², Cu 3~

IP 65 | PC | RAL 7035 | 20 / 21 Wall 21 / 20

- with terminals
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s
- sealable
- order cable glands, flanges and other accessories separately as required
- for normal environment and protected outdoor



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	150 A
tightening torque for terminal	12.0 Nm

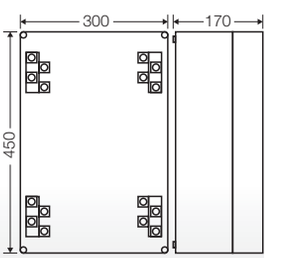


K 7004

16-70 mm², Cu 3~

IP 65 | PC | RAL 7035 | 20 / 21 Wall 21 / 20

- with terminals
- 4-pole per pole 4 x 16-70 mm² s
- sealable
- order cable glands, flanges and other accessories separately as required
- for normal environment and protected outdoor



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	216 A
tightening torque for terminal	10.0 Nm

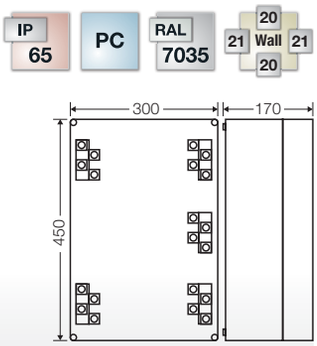


K 7005

16-70 mm², Cu 3~

- with terminals
- 5-pole per polel 4 x 16-70 mm² s
- sealable
- order cable glands, flanges and other accessories separately as required
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	216 A
tightening torque for terminal	10.0 Nm



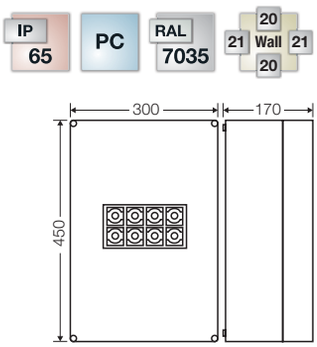


K 1204

16-150 mm², Cu/Alu 3~

- with terminals
- 4-pole per pole 2 x 16-150 mm², 4 x 16-70 mm², conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	250 A
tightening torque for terminal	20.0 Nm



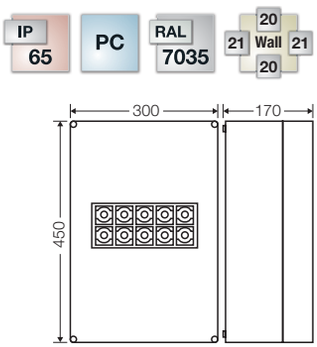


K 1205

16-150 mm², Cu/Alu 3~

- with terminals
- 5-pole per pole 2 x 16-150 mm², 4 x 16-70 mm², conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	250 A
tightening torque for terminal	20.0 Nm



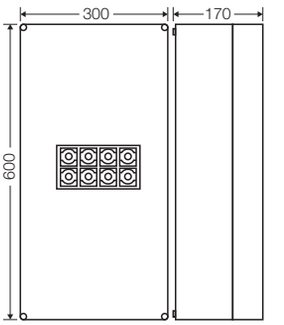


K 2404

25-240 mm², Cu/Alu 3~

- with terminals
- 4-pole per pole 2 x 25-185/240 mm², 4 x 25-120 mm², conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor





rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	400 A
tightening torque for terminal	40.0 Nm

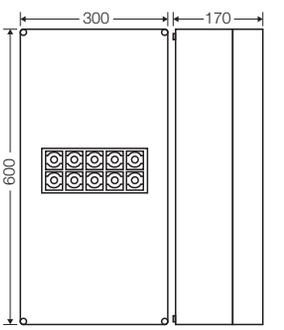


K 2405

25-240 mm², Cu/Alu 3~

- with terminals
- 5-pole per pole 2 x 25-185/240 mm², 4 x 25-120 mm², conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor



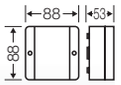


rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	400 A
tightening torque for terminal	40.0 Nm



D 9020

IP 55 ESM | IP 65 | PS | RAL 7035 | 3 Wall 3 (3 / 1)

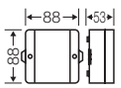


- without terminals
- included cable entry: 4 ESM 20, sealing range Ø 6-13 mm
- for normal environment and protected outdoor



D 9120

IP 55 ESM | IP 65 | PS | RAL 7035 | 3 Wall 3 (3 / 1)

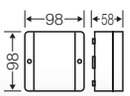


- without terminals
- with external fixing
- included cable entry: 4 ESM 20, sealing range Ø 6-13 mm
- for normal environment and protected outdoor



D 9140

IP 55 ESM | IP 65 | PS | RAL 7035 | 3 Wall 3 (3 / 1)

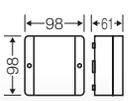


- without terminals
- included cable entry: 4 ESM 20, sealing range Ø 6-13 mm
- for normal environment and protected outdoor



D 9040

IP 55 ESM | IP 65 | PS | RAL 7035 | 4 Wall 4 (4 / 2)

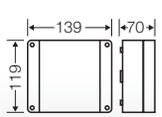


- without terminals
- included cable entry: 4 ESM 25, sealing range Ø 9-17 mm
- for normal environment and protected outdoor



K 9060

IP 55 ESM | IP 65 | PS | RAL 7035 | 10 Wall 5 (6 / 10)

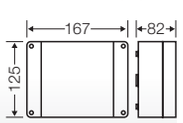


- without terminals
- included cable entry: 3 ESM 32, sealing range Ø 9-23 mm
- for normal environment and protected outdoor



K 9100

IP 55 ESM | IP 65 | PS | RAL 7035 | 14 Wall 6 (6 / 10)



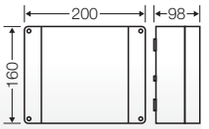
- without terminals
- included cable entry: 3 ESM 32, sealing range Ø 9-23 mm
- for normal environment and protected outdoor



K 9250

- without terminals
- included cable entry: 3 ESM 40, sealing range Ø 17-30 mm
- for normal environment and protected outdoor

IP 55 ESM | IP 65 | PS | RAL 7035 | 16 / 8 Wall 8 / 11

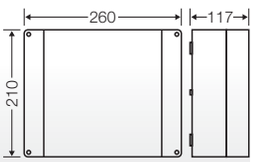




K 9350

- without terminals
- included cable entry: 3 ESM 40, sealing range Ø 17-30 mm
- for normal environment and protected outdoor

IP 55 ESM | IP 65 | PS | RAL 7035 | 13 / 15 Wall 15 / 13

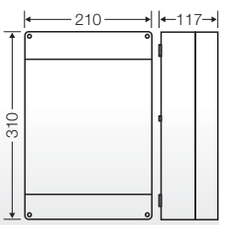




K 9500

- without terminals
- cable entries via knockouts, order AKM/ASM separately (see cable entry systems LES)
- for normal environment and protected outdoor

IP 55 ESM | IP 65 | PS | RAL 7035 | 12 / 17 Wall 17 / 12







Cable entries can be drilled individually.



- Labelling system for circuit description
- Label template on the Internet at www.hensel-electric.de - in the 'Downloads' area.



- Stainless steel cover screws with quick fastening metric thread. Reducing cover fixing time.

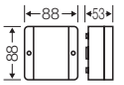


- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing



D 8020

IP 65 | PS | RAL 7035



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 20
- for normal environment and protected outdoor

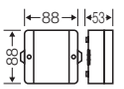
wall thickness of the bottom part	2.3 mm





D 8120

IP 65 | PS | RAL 7035



- without terminals
- with external fixing
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 20
- for normal environment and protected outdoor

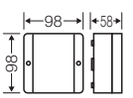
wall thickness of the bottom part	2.3 mm





D 8040

IP 65 | PS | RAL 7035



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 20
- for normal environment and protected outdoor

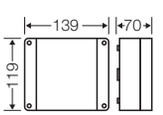
wall thickness of the bottom part	2.3 mm





K 8060

IP 65 | PS | RAL 7035



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 32
- for normal environment and protected outdoor

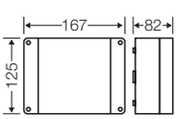
wall thickness of the bottom part	2.6 mm





K 8100

IP 65 | PS | RAL 7035



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 32
- for normal environment and protected outdoor

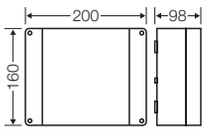
wall thickness of the bottom part	2.8 mm





K 8250

IP 65 | PS | RAL 7035



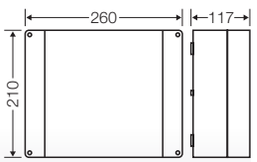
- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 40
- for normal environment and protected outdoor

wall thickness of the bottom part	3 mm



K 8350

IP 65 | PS | RAL 7035



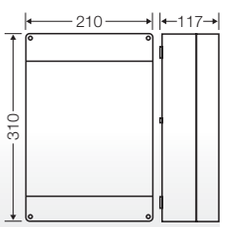
- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 50
- for normal environment and protected outdoor

wall thickness of the bottom part	3 mm



K 8500

IP 65 | PS | RAL 7035



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 50
- for normal environment and protected outdoor

wall thickness of the bottom part	3 mm

DK Cable Junction Boxes
Empty boxes
Box walls without knockouts

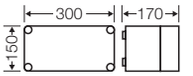


K 0100

IP 65 | PC | RAL 7035

- with transparent lid
- lid fasteners for tool operation
- box walls without knockouts
- please order DIN rails or mounting plates additionally
- for normal environment and protected outdoor

wall thickness of the bottom part	3.5 mm



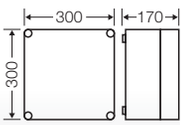


K 0200

IP 65 | PC | RAL 7035

- with transparent lid
- lid fasteners for tool operation
- box walls without knockouts
- please order DIN rails or mounting plates additionally
- for normal environment and protected outdoor

wall thickness of the bottom part	3.5 mm



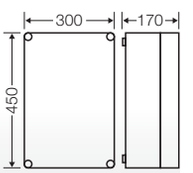


K 0300

IP 65 | PC | RAL 7035

- with transparent lid
- lid fasteners for tool operation
- box walls without knockouts
- please order DIN rails or mounting plates additionally
- for normal environment and protected outdoor

wall thickness of the bottom part	3.5 mm



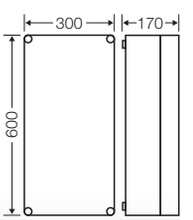


K 0400

IP 65 | PC | RAL 7035

- with transparent lid
- lid fasteners for tool operation
- box walls without knockouts
- please order DIN rails or mounting plates additionally
- for normal environment and protected outdoor

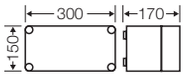
wall thickness of the bottom part	3.5 mm





K 0101

IP 65 | PC | RAL 7035



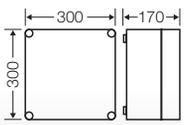
- with opaque lid
- lid fasteners for tool operation
- box walls without knockouts
- please order DIN rails or mounting plates additionally
- for normal environment and protected outdoor

wall thickness of the bottom part	3.5 mm



K 0201

IP 65 | PC | RAL 7035



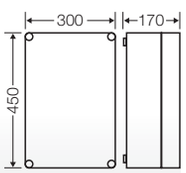
- with opaque lid
- lid fasteners for tool operation
- box walls without knockouts
- please order DIN rails or mounting plates additionally
- for normal environment and protected outdoor

wall thickness of the bottom part	3.5 mm



K 0301

IP 65 | PC | RAL 7035



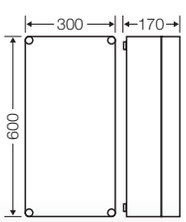
- with opaque lid
- lid fasteners for tool operation
- box walls without knockouts
- please order DIN rails or mounting plates additionally
- for normal environment and protected outdoor

wall thickness of the bottom part	3.5 mm



K 0401

IP 65 | PC | RAL 7035



- with opaque lid
- lid fasteners for tool operation
- box walls without knockouts
- please order DIN rails or mounting plates additionally
- for normal environment and protected outdoor

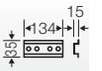
wall thickness of the bottom part	3.5 mm



Mi TS 15

DIN rail
length 134 mm

- in accordance with DIN EN 60715
- for Mi Empty box size 1
- for equipment or terminals with clip-on mounting
- with fixing screws





Mi TS 30

DIN rail
length 284 mm

- in accordance with DIN EN 60715
- for Mi empty box sizes 1 to 8
- for equipment or terminals with clip-on mounting
- with fixing screws

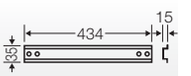




Mi TS 45

DIN rail
length 434 mm

- in accordance with DIN EN 60715
- for Mi empty box size 3
- for equipment or terminals with clip-on mounting
- with fixing screws

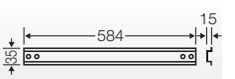




Mi TS 60

DIN rail
length 584 mm

- in accordance with DIN EN 60715
- for Mi empty box sizes 4 and 8
- for equipment or terminals with clip-on mounting
- with fixing screws



Mi MP 1

Mounting plate
W 259 x H 115 mm

- material thickness 4 mm
- for Mi-Empty boxes sizes 1, 2, 3, 4
- with fixing screws

Lami-nated paper



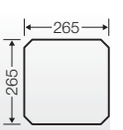


Mi MP 2

Mounting plate
W 265 x H 265 mm

- material thickness 4 mm
- for Mi-Empty boxes sizes 2 to 8
- with fixing screws

Lami-nated paper



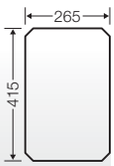


Mi MP 3

Mounting plate
W 265 x H 415 mm

- material thickness 4 mm
- for Mi-Empty boxes sizes 3, 4, 6
- with fixing screws

Lami-nated paper

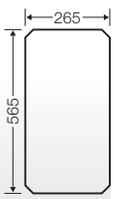


Mi MP 4

Mounting plate
W 265 x H 565 mm

- material thickness 4 mm
- for Mi-Empty boxes sizes 4, 8
- with fixing screws

Lami-nated paper





Mi ZS 30

Hinge for lids

- for empty boxes K 0xxx
- with lamellar plugs for 2 lid fixing tubes
- The lid keeps permanently connected to the box



Mi PL 2

Sealing cap

- 2 sealing caps for converting the lid fasteners



Mi SR 4

Conversion set
for manual operation on tool operation

- 4 fastening covers



Mi SN 4

Conversion set
for converting lid fasteners from tool to manual operation

- 4 manual actuators



Mi DV 01

Locking device insertion

- only in connection with Mi PL 2, Mi SR 4 or Mi SN 4



Mi ZS 11

Lid lock
with locking device I

- Is being used instead of fasteners for hand or tool operation in order to prevent unauthorised opening of the lids
- consisting of: cylinder lock, keys, locking device insertion, dust cover



Mi ZS 12

Lid lock
with locking device II

- Is being used instead of fasteners for hand or tool operation in order to prevent unauthorised opening of the lids
- consisting of: cylinder lock, keys, locking device insertion, dust cover



Mi DR 04

Lid fastener for tool operation
triangle 8 mm

- is used instead of fasteners for hand- or tool operation, in order to make unauthorized opening of lids more difficult
- 4 locking devices with triangle 8 mm and key



DS 1

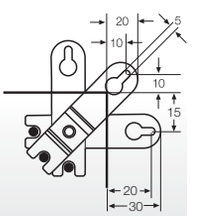
Triangular key 8 mm



Mi AL 40

4 stainless steel external brackets

- for external fixing of enclosures



DK Cable Junction Boxes
With terminals in plug-in technology
Cable entry via metric knockouts

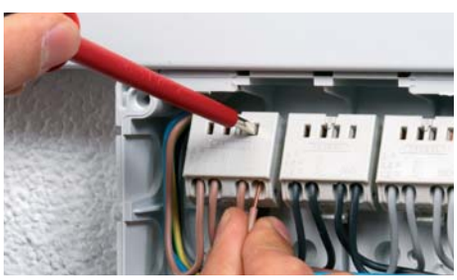




- Plenty of space for the wiring: Wiring facilities both below the DIN rails and between the terminals.



- Different conductor types - rigid (r) and flexible (f) without treatment of conductors - can be connected in one terminal.



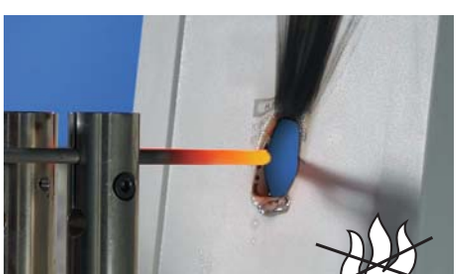
- Conductors can be directly connected and disconnected **with installed terminal.**



- Stainless steel cover screws with quick fastening metric thread. Reducing cover fixing time.



- Labelling system for circuit description
- Label template on the Internet at www.hensel-electric.de - in the 'Downloads' area.



- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing

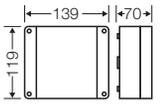
DK Cable Junction Boxes
With terminals in plug-in technology
Cable entry via metric knockouts



KC 9045

1.5-4 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 10 / 6 Wall 5 / 10



- FIXCONNECT® plug-in terminal technology
- 5-pole per pole 4 x 1 x 1.5-4 mm² sol/f, terminal technology, see annex DK Cable junction boxes
- included cable entry: 4 ESM 25, sealing range Ø 9-17 mm
- for normal environment and protected outdoor

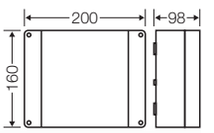
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A



KC 9255

2.5-10 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 16 / 8 Wall 8 / 11



- FIXCONNECT® plug-in terminal technology
- 5-pole per pole 4 x 1 x 2.5-10 mm² r/f
- included cable entry: 3 ESM 32, sealing range Ø 9-23 mm
- for normal environment and protected outdoor

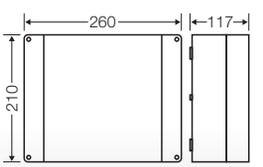
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	50 A



KC 9355

2.5-16 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 13 / 15 Wall 15 / 13



- FIXCONNECT® plug-in terminal technology
- 5-pole per pole 4 x 1 x 2.5-16 mm² r/f
- included cable entry: 3 ESM 40, sealing range Ø 17-30 mm
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	76 A





- Application: Cable junction box using entries for conduits.



- Labelling system for circuit description
- Label template on the Internet at www.hensel-electric.de - in the 'Downloads' area.



- Stainless steel cover screws with quick fastening metric thread. Reducing cover fixing time.



- Application: Cable junction box using special cable entries for armoured cables.



- Hensel cable junction boxes with armoured cables according to British Standard.



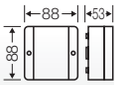
- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing



DM 9020

IP 65 | PS | RAL 7035 | 3 Wall 3 | 3 | 1

- without terminals
- cable entry via knockouts, cable entry to be ordered separately
- for normal environment and protected outdoor

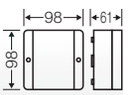




DM 9140

IP 65 | PS | RAL 7035 | 3 Wall 3 | 3 | 1

- without terminals
- cable entry via knockouts, cable entry to be ordered separately
- for normal environment and protected outdoor

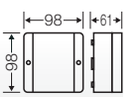




DM 9040

IP 65 | PS | RAL 7035 | 4 Wall 4 | 4 | 2

- without terminals
- cable entry via knockouts, cable entry to be ordered separately
- for normal environment and protected outdoor

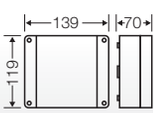




KM 9060

IP 65 | PS | RAL 7035 | 10 Wall 5 | 6 | 10

- without terminals
- cable entry via knockouts, cable entry to be ordered separately
- for normal environment and protected outdoor

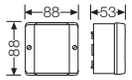




DM 9025

1.5-2.5 mm², Cu 3~

IP 65 | PS | RAL 7035 | 3 Wall 3 (3 / 1)



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- cable entry via metric knockouts
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm

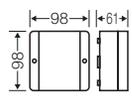




DM 9145

1.5-4 mm², Cu 3~

IP 65 | PS | RAL 7035 | 3 Wall 3 (3 / 1)



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol, 2 x 6 mm² sol
- cable entry via metric knockouts
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm

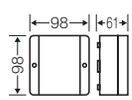




DM 9045

1.5-4 mm², Cu 3~

IP 65 | PS | RAL 7035 | 4 Wall 4 (4 / 2)



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol, 2 x 6 mm² sol
- cable entry via metric knockouts
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm

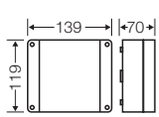




KM 9065

2.5-6 mm², Cu 3~

IP 65 | PS | RAL 7035 | 10 Wall 5 (6 / 10)



- with terminals
- 5-pole per pole 4 x 2.5 mm² sol, 4 x 4 mm² sol, 3 x 6 mm² sol, 2 x 10 mm² sol
- cable entry via metric knockouts
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.5 Nm

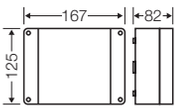




K 8105

4-10 mm², Cu 3~





- with terminals
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 32
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	63 A
tightening torque for terminal	2.0 Nm
wall thickness of the bottom part	2.8 mm

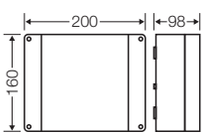




K 8255

10-25 mm², Cu 3~





- with terminals
- 5-pole per pole 6 x 10 mm² sol, 4 x 16 mm² s, 4 x 25 mm² s, 2 x 35 mm² s
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 40
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	102 A
tightening torque for terminal	3.0 Nm
wall thickness of the bottom part	3 mm







- IP 55 with cable entry via elastic membranes.



- IP 65 with ADM 20 cable gland without locknut. The gland is secured by an integrated M 20 thread.



- Captive cover screws with quick-release lock.



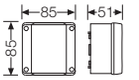
- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing



DN 2035

1.5-2.5 mm², Cu 3~

IP 55 | IP 65 ADM | PP | RAL 7035 | 3 Wall 3



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- cable entry via elastic membranes and integrated M 20 thread
- 8 elastic membranes, closed, sealing range Ø 3-12 mm
- included cable entry: 3 ADM 20, sealing range Ø 6,5-13.5 mm
- for normal environment and protected outdoor

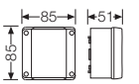
rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm



DN 2005

1.5-2.5 mm², Cu 3~

IP 55 | IP 65 ADM | PP | RAL 7035 | 3 Wall 3



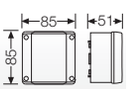
- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- cable entry via elastic membranes and integrated M 20 thread
- 8 elastic membranes, closed, sealing range Ø 3-12 mm
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm



DN 2030

IP 55 | IP 65 ADM | PP | RAL 7035 | 3 Wall 3

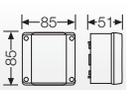


- without terminals
- cable entry via elastic membranes and integrated M 20 thread
- 8 elastic membranes, closed, sealing range Ø 3-12 mm
- included cable entry: 3 ADM 20, sealing range Ø 6,5-13.5 mm



DN 2000

IP 55 | IP 65 ADM | PP | RAL 7035 | 3 Wall 3



- without terminals
- cable entry via elastic membranes and integrated M 20 thread
- 8 elastic membranes, closed, sealing range Ø 3-12 mm
- for normal environment and protected outdoor



ADM 20

ISO thread M 20 x 1.5

IP 65 | PA | RAL 7035



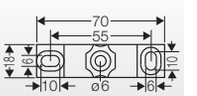
- sealing range Ø 6,5-13.5 mm
- with strain relief
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25° to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C

tightening torque	2.0 Nm



DE MB 10

Assembly bracket



- external brackets 10 units
- material: thermoplastics
- for quick installation of cable junction boxes DE 922. and DN 20..

DK Cable Junction Boxes
For cable trunking and conduit installation
Cable entry via knockouts





- Simply cut out cable trunking wall to the required width.



- The cables can be inserted from the front! No threading of cables neccessary!
- Supplied accessory grommets DPS 02 = IP 54



- Stainless steel cover screws with quick fastening metric thread. Reducing cover fixing time.



- The clean installation solution for cable trunking!
- Removable trunking adapters for connection of cable trunkings to junction boxes.



- Labelling system for circuit description
- Label template on the Internet at www.hensel-electric.de - in the 'Downloads' area.



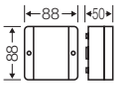
- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing

DK Cable Junction Boxes
For cable trunking and conduit installation
Cable entry via knockouts



DP 9025
1.5-2.5 mm², Cu 3~

IP 54 | PS | RAL 7035 | 26 Wall 26 / 25



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- for cable trunking and conduit installation
- included cable entry: 4 DPS 02, sealing range Ø 10-13.5 mm
- for normal environment and protected outdoor

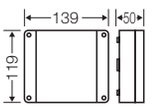
rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm





DP 9221
1.5-2.5 mm², Cu 3~

IP 54 | PS | RAL 7035 | 28 Wall 27 / 27



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- for cable trunking and conduit installation
- included cable entry: 7 DPS 02, sealing range Ø 10-13.5 mm
- for normal environment and protected outdoor

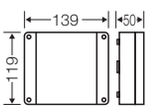
rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm





DP 9222
1.5-2.5 mm², Cu 3~

IP 54 | PS | RAL 7035 | 28 Wall 27 / 27



- with 2 terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- for cable trunking and conduit installation
- included cable entry: 7 DPS 02, sealing range Ø 10-13.5 mm
- for normal environment and protected outdoor

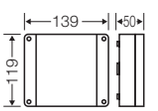
rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm





DPC 9225
1.5-2.5 mm², Cu 3~

IP 54 | PS | RAL 7035 | 28 Wall 27 / 27



- FIXCONNECT® plug-in terminal technology
- 5-pole per pole 4 x 1 x 1.5-2.5 mm² sol/f, terminal technology, see annex DK Cable junction boxes
- for cable trunking and conduit installation
- included cable entry: 4 DPS 02, sealing range Ø 10-13.5 mm
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A

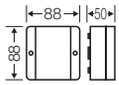


DK Cable Junction Boxes
For cable trunking and conduit installation
Cable entry via knockouts



DP 9020

IP 54 | PS | RAL 7035 | 26 Wall 26 / 25



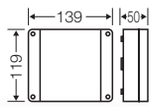
- without terminals
- for cable trunking and conduit installation
- included cable entry: 4 DPS 02, sealing range Ø 10-13.5 mm
- for normal environment and protected outdoor





DP 9220

IP 54 | PS | RAL 7035 | 28 Wall 27 / 27



- without terminals
- for cable trunking and conduit installation
- included cable entry: 7 DPS 02, sealing range Ø 10-13.5 mm
- for normal environment and protected outdoor



DK Cable Junction Boxes
For cable trunking and conduit installation
Cable entry via knockouts



DPS 02
Removable grommet

IP 54

- degree of protection: IP 54 sealing range Ø 10-13.5 mm
- for retrofitting
- for cable junction boxes DP 9020, DP 9220, DP 9025, DP 9221, DP 9222, DP 9026, DPC 9225



ERA 20
Removable conduit adapter

IP 54

- degree of protection: IP 54 sealing range Ø 10-13.5 mm
- for wiring conduits M 20
- for cable junction boxes DP 9020, DP 9220, DP 9025, DP 9221, DP 9222, DP 9026, DPC 9225



EKA 20
Removable trunking adapter

IP 54

- degree of protection: IP 54 sealing range Ø 10-13.5 mm
- for mini trunking up to 20 x 20 mm
- for cable junction boxes DP 9020, DP 9220, DP 9025, DP 9221, DP 9222, DP 9026, DPC 9225





- No punching tool required - insert the conductor and it‘s done
- Degree of protection IP 55



- Grommet supplied for sealing membranes in case of modifications.



- Labelling system for circuit description
- Label template on the Internet at www.hensel-electric.de - in the ’Downloads’ area.



- Box wall with 3 cable entries



- Stainless steel cover screws with quick fastening metric thread.
  Reducing cover fixing time.



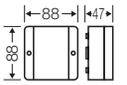
- Burning behaviour:
  Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing



DE 9325

1.5-2.5 mm², Cu 3~





- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-16 mm
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm

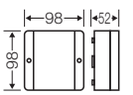




DE 9345

1.5-4 mm², Cu 3~





- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol, 2 x 6 mm² sol
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-18 mm
- for normal environment and protected outdoor

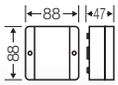
rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm





DE 9320

IP 55 | PS | RAL 7035 | 24 / 23 Wall 23 / 24

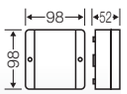


- without terminals
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-16 mm
- for normal environment and protected outdoor



DE 9340

IP 55 | PS | RAL 7035 | 24 / 23 Wall 23 / 24

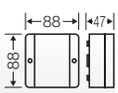


- without terminals
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-18 mm
- for normal environment and protected outdoor



DE 9330

IP 55 | PS | RAL 7035 | 24 / 23 Wall 23 / 24

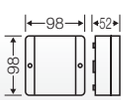


- without terminals
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-16 mm
- with cable retention (2 pc.) for cable tie up to 6.5 mm width
- for normal environment and protected outdoor



DE 9350

IP 55 | PS | RAL 7035 | 24 / 23 Wall 23 / 24



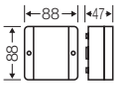
- without terminals
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-18 mm
- with cable retention (2 pc.) for cable tie up to 6.5 mm width
- for normal environment and protected outdoor



DE 9326

1.5-2.5 mm², Cu 3~





- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-16 mm
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm

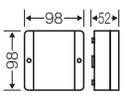




DE 9346

1.5-4 mm², Cu 3~





- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol, 2 x 6 mm² sol
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-18 mm
- for normal environment and protected outdoor

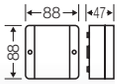
rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm





DE 9321

IP 55 | PS | RAL 9016 | 24 / 23 Wall 23 / 24



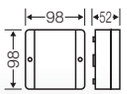
- without terminals
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-16 mm
- for normal environment and protected outdoor





DE 9341

IP 55 | PS | RAL 9016 | 24 / 23 Wall 23 / 24



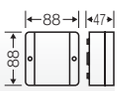
- without terminals
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-18 mm
- for normal environment and protected outdoor





DE 9331

IP 55 | PS | RAL 9016 | 24 / 23 Wall 23 / 24

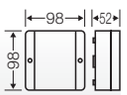


- without terminals
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-16 mm
- with cable retention (2 pc.) for cable tie up to 6.5 mm width
- for normal environment and protected outdoor



DE 9351

IP 55 | PS | RAL 9016 | 24 / 23 Wall 23 / 24



- without terminals
- 10 elastic membranes, closed cable entries, sealing range Ø 6.5-18 mm
- with cable retention (2 pc.) for cable tie up to 6.5 mm width
- for normal environment and protected outdoor



KHR 01

Cable retention
for cable diameter 6.5 - 14 mm

- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 6,5 - 10 mm
- 30 pieces for cable diameter 10 - 14 mm



KHR 02

Cable retention
for cable diameter 10 - 16 mm

- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 10 - 14 mm
- 30 pieces for cable diameter 13 - 16 mm



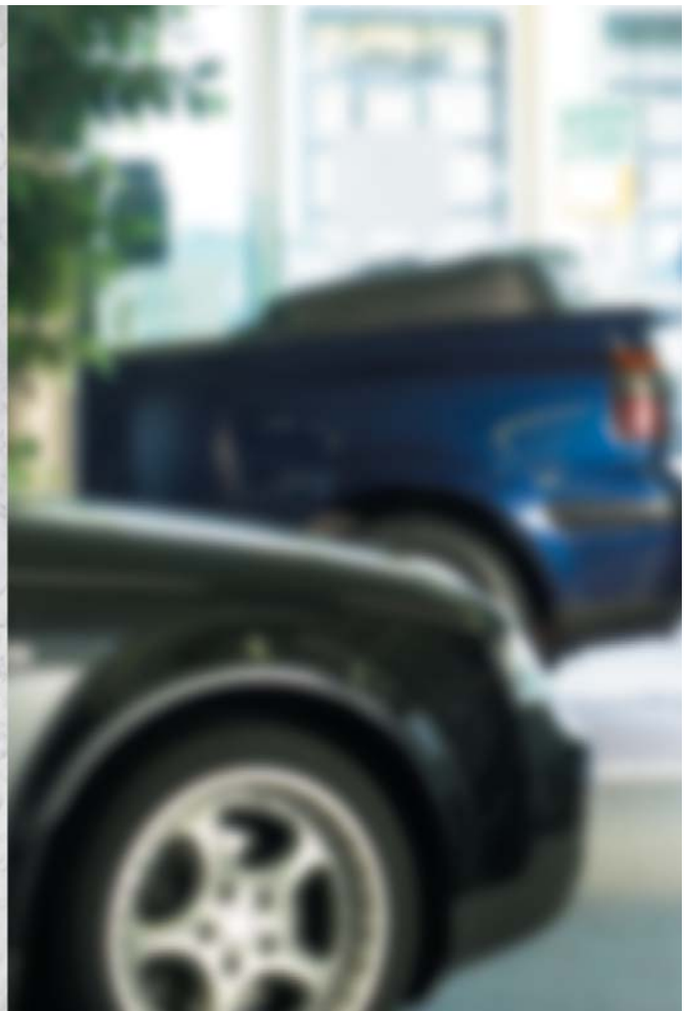
DK ZE 10

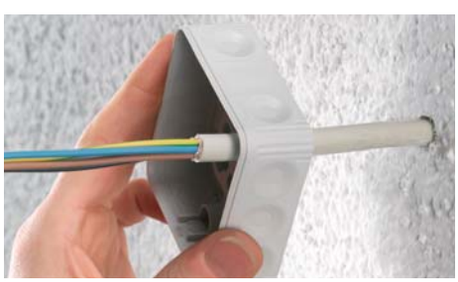
Cable retention

- set with 10 pieces
- for fixing in the bottom part of DK-cable junction boxes
- cable retention with cable clip up to 6.5 mm

DK Cable Junction Boxes
Cable entry via elastic membranes in bottom and box walls







- Cable entry from the rear via elastic membranes in the bottom



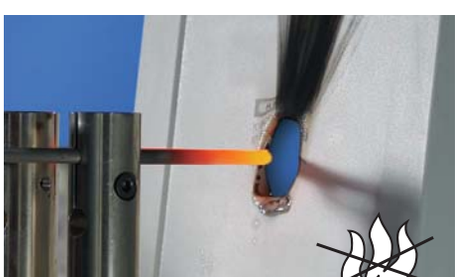
- Lid for clip-on attachment. Reducing cover fixing time



- Cable entry via elastic membranes in box walls



- Flexible elastic membranes - no cable glands required. Push through and tight!



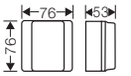
- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing



DE 9225

1.5-2.5 mm², Cu 3~





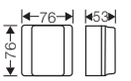
- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- box walls with 10 elastic membranes, closed, sealing range Ø 3-14 mm, bottom with 2 elastic membranes, closed
- lid with clip-on attachment
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm



DE 9220





- without terminals
- box walls with 10 elastic membranes, closed, sealing range Ø 3-14 mm, bottom with 2 elastic membranes, closed
- lid with clip-on attachment
- with cable retention (2 pc.) for cable tie up to 6.5 mm width
- for normal environment and protected outdoor

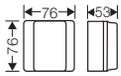
DK Cable Junction Boxes
Cable entry via elastic membranes in bottom and box walls



DE 9226

1.5-2.5 mm², Cu 3~

IP 55 | PS | RAL 9016 | 23 / 24 Wall 24 / 23



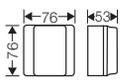
- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- box walls with 10 elastic membranes, closed, sealing range Ø 3-14 mm, bottom with 2 elastic membranes, closed
- lid with clip-on attachment
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm



DE 9221

IP 55 | PS | RAL 9016 | 23 / 24 Wall 24 / 23



- without terminals
- box walls with 10 elastic membranes, closed, sealing range Ø 3-14 mm, bottom with 2 elastic membranes, closed
- lid with clip-on attachment
- with cable retention (2 pc.) for cable tie up to 6.5 mm width
- for normal environment and protected outdoor



DK ZE 10

Cable retention

- set with 10 pieces
- for fixing in the bottom part of DK-cable junction boxes
- cable retention with cable clip up to 6.5 mm



KHR 01

Cable retention
for cable diameter 6.5 - 14 mm

- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 6,5 - 10 mm
- 30 pieces for cable diameter 10 - 14 mm



KHR 02

Cable retention
for cable diameter 10 - 16 mm

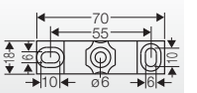
- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 10 - 14 mm
- 30 pieces for cable diameter 13 - 16 mm



DE MB 10

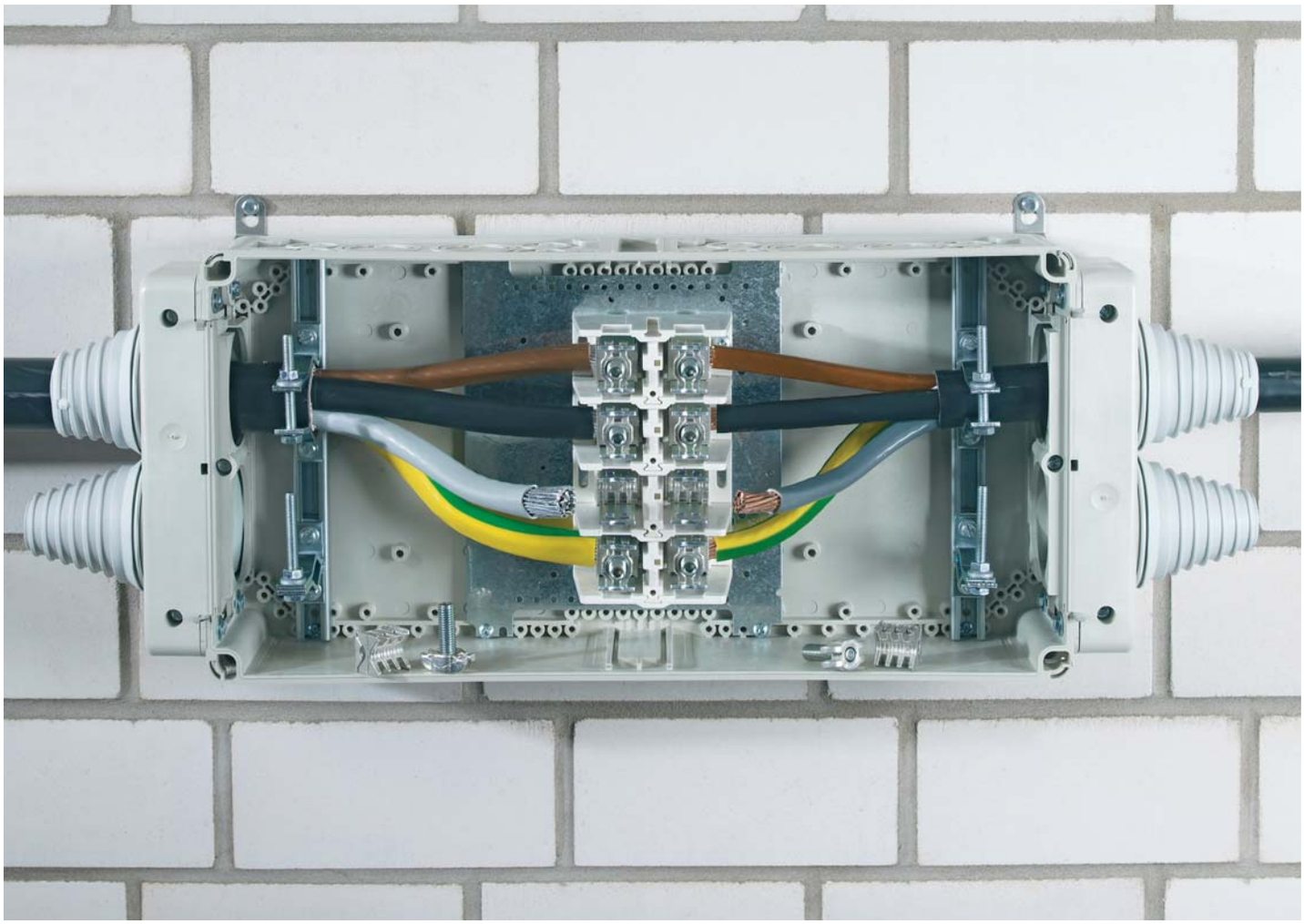
Assembly bracket

- external brackets 10 units
- material: thermoplastics
- for quick installation of cable junction boxes DE 922. and DN 20..



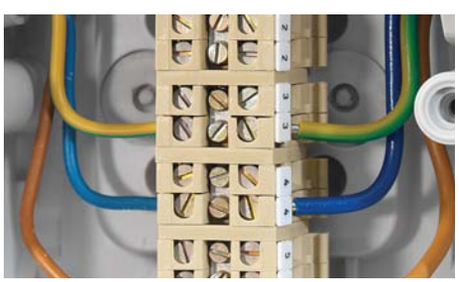
DK Cable Junction Boxes

With terminals for aluminum and copper conductors
Cable entry via metric knockouts





- Degree of protection up to IP 65. to achieve the degree IP 54 with twisted cables, it is absolutely necessary to use cable glands



- Separate clamping units for aluminium and copper conductors



- Labelling system for circuit description.
- Label template on the Internet at www.hensel-electric.de - in the 'Downloads' area.



- Stainless steel cover screws with quick fastening metric thread.
  Reducing cover fixing time.



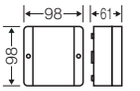
- Burning behaviour:
  Glow wire test according to IEC 60695-2-11: 750 °C / 960 °C, flame-retardant, self-extinguishing

DK Cable Junction Boxes
With terminals for aluminum and copper conductors
Cable entry via metric knockouts



D 9041
1.5-2.5 mm², Cu/Alu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 4 Wall 4 (4 / 2)



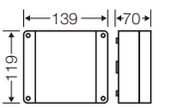
- with terminals
- 5-pole per polel 4 x 1.5 mm² sol/f, 4 x 2.5 mm² sol/f, conductors are inserted into the screw-type terminal, terminal technology, see annex DK Cable junction boxes
- included cable entry: 4 ESM 25, sealing range Ø 9-17 mm
- to achieve the degree IP 54 with twisted cables, it is absolutely necessary to use cable glands
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 250 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.5 Nm



K 9061
1.5-4 mm², Cu/Alu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 10 Wall 5 (6 / 10)



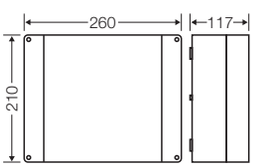
- with terminals
- 5-pole per pole 4 x 1.5 mm² sol/f, 4 x 2.5 mm² sol/f, 4 x 4 mm² sol/f, conductors are inserted into the screw-type terminal, terminal technology, see annex DK Cable junction boxes
- included cable entry: 3 ESM 32, sealing range Ø 9-23 mm
- to achieve the degree IP 54 with twisted cables, it is absolutely necessary to use cable glands
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 400 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.6 Nm



K 9351
6-16 mm², Cu/Alu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 13 Wall 15 (15 / 13)



- with terminals
- 5-pole per polel 4 x 6 mm² sol/f, 4 x 10 mm² sol/f, 4 x 16 mm² sol/s/f, conductors are inserted into the screw-type terminal, terminal technology, see annex DK Cable junction boxes
- included cable entry: 3 ESM 40, sealing range Ø 17-30 mm
- to achieve the degree IP 54 with twisted cables, it is absolutely necessary to use cable glands
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

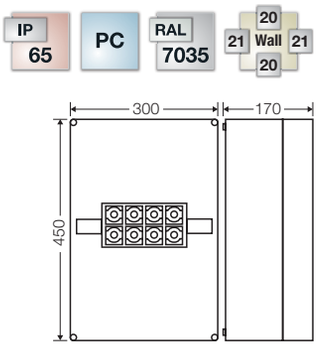
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	76 A
tightening torque for terminal	3.0 Nm

DK Cable Junction Boxes
With terminals for aluminum and copper conductors
Cable entry via metric knockouts



K 7051

2.5-50 mm², Cu/Alu 3~



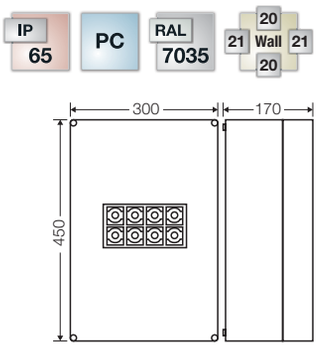
- with terminals
- 5-pole per pole 4 x 2.5-50 mm²,
  conductors are inserted into the screw-type terminal, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 750 V a.c./d.c.
current carrying capacity	Cu, 150 A Alu, 120 A
tightening torque for terminal	10.0 Nm



K 7042

10-95 mm² Cu/Alu 3~



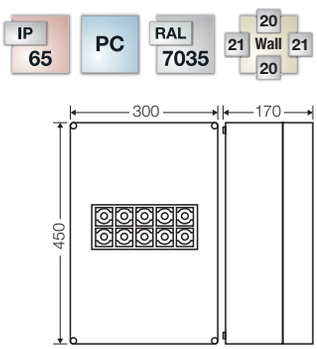
- with terminals
- 4-pole per pole 2 x 10-95 mm²,
  conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	160 A
tightening torque for terminal	20.0 Nm



K 7052

10-95 mm² Cu/Alu 3~



- with terminals
- sealable
- 5-pole per pole 2 x 10-95 mm²,
  conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	160 A
tightening torque for terminal	20.0 Nm

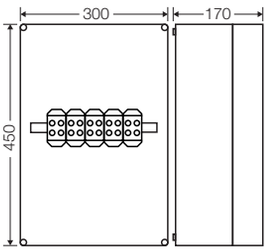
DK Cable Junction Boxes
With terminals for aluminum and copper conductors
Cable entry via metric knockouts



K 9951

6-95 mm², Cu/Alu 3~

IP 65 | PC | RAL 7035 | 20 21 Wall 21 20



- with terminals
- 5-pole per pole 4 x 6-95 mm², conductors are inserted into the screw-type terminal, terminal technology, see annex DK Cable junction boxes
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

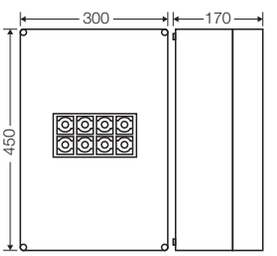
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	490 A
tightening torque for terminal	12.0 Nm 6-25 mm² 22.0 Nm 35-95 mm²



K 1204

16-150 mm², Cu/Alu 3~

IP 65 | PC | RAL 7035 | 20 21 Wall 21 20



- with terminals
- 4-pole per pole 2 x 16-150 mm², 4 x 16-70 mm², conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

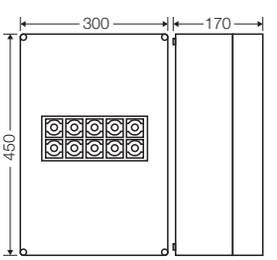
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	250 A
tightening torque for terminal	20.0 Nm



K 1205

16-150 mm², Cu/Alu 3~

IP 65 | PC | RAL 7035 | 20 21 Wall 21 20



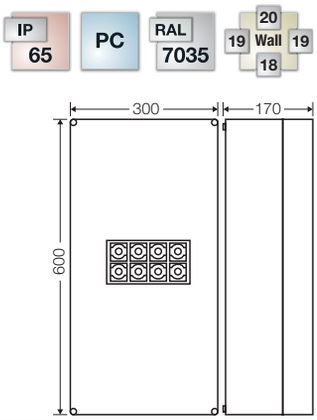
- with terminals
- 5-pole per pole 2 x 16-150 mm², 4 x 16-70 mm², conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	250 A
tightening torque for terminal	20.0 Nm

DK Cable Junction Boxes
With terminals for aluminum and copper conductors
Cable entry via metric knockouts



K 2404
25-240 mm², Cu/Alu 3~

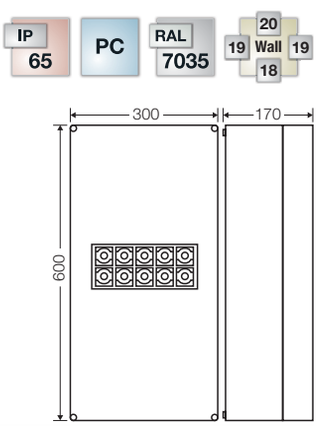


- with terminals
- 4-pole per pole 2 x 25-185/240 mm², 4 x 25-120 mm², conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	400 A
tightening torque for terminal	40.0 Nm



K 2405
25-240 mm², Cu/Alu 3~

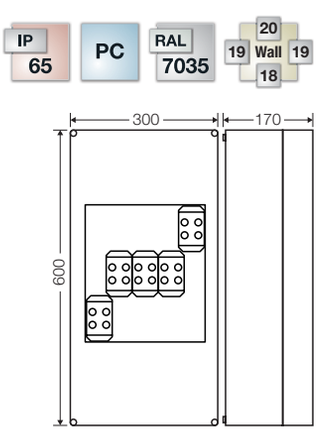


- with terminals
- 5-pole per pole 2 x 25-185/240 mm², 4 x 25-120 mm², conductors can be inserted from the front into the clamping unit, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	400 A
tightening torque for terminal	40.0 Nm



K 2401
35-240 mm², Cu/Alu 3~



- with terminals
- 5-pole per pole 4 x 35-240 mm², conductors are inserted into the screw-type terminal, terminal technology, see annex DK Cable junction boxes
- sealable
- order cable glands, flanges and other accessories separately as required
- before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations, see technical information aluminum conductors
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	{850 A}
tightening torque for terminal	26.0 Nm 35-120 mm² 55.0 Nm 150-240 mm²

DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts





- "Weatherproof" Cable junction boxes comply with regulatory restrictions for buildings with requirements regarding the structural fire protection!
- High quality material: PC-GFS Polycarbonate, impact-resistant



- "Weatherproof" Cable junction boxes comply with regulatory restrictions for buildings with requirements regarding the structural fire protection!
- **halogen-free, silicone-free:** low toxicity, low fume development



- "Weatherproof" Cable junction boxes **fulfill the requirements for "unprotected outdoor installation"**
- **Weatherproof:** UV-resistant, rainwater-proof, temperature-resistant



- Degree of protection IP 66/ IP 67 using cable glands, available as an accessories
- Temporary submersion up to 1 meter, max. 15 minutes



- Closes quickly by a quarter turn – closed position is visible



- Burning behaviour: Glow-wire test 960°C according to IEC 60695-2-11: 960 °C flame-retardant, self-extinguishing

DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



Reference table: Cable junction boxes "weatherproof" old-new

Present types	New types
KF 9020	**KF 0200 G**
KF 9025	**KF 0202 G** **KF 0402 G**
KF 5020 KD 5020	**KF 0200 B**
KF 5025 KD 5025	**KF 0202 B** **KF 0402 B**
KF 9040	**KF 0400 G**
KF 9045	**KF 0404 G** **KF 0604 G**
KF 5040 KD 5040	**KF 0400 B**
KF 5045 KD 5045	**KF 0404 B** **KF 0604 B**
KF 9060	**KF 0600 G**
KF 9065	**KF 0606 G** **KF 1006 G**
KF 5060 KD 5060	**KF 0600 B**
KF 5065 KD 5065	**KF 0606 B** **KF 1006 B**
KF 9100	**KF 1000 G**
KF 9105	**KF 1010 G** **KF 1610 G**
KF 5100 KD 5100	**KF 1000 B**
KF 5105 KD 5105	**KF 1010 B** **KF 1610 B**
KF 9250	**KF 2500 G**
KF 9255	**KF 2525 G**

Present types	New types
KF 5250 KD 5250	**KF 2500 B**
KF 5255 KD 5255	**KF 2525 B**
KF 9350	**KF 3500 G**
KF 9355	**KF 3535 G**
KF 5350 KD 5350	**KF 3500 B**
KF 5355 KD 5355	**KF 3535 B**
KF 9500	**KF 5000 G**
KF 9505	**KF 5050 G**
KF 5500	**KF 5000 B**
KF 5505	**KF 5050 B**
KF 8020	**KF 0200 H**
KF 4020 KD 4020	**KF 0200 C**
KF 8040	**KF 0400 H**
KF 4040 KD 4040	**KF 0400 C**
KF 8060	**KF 0600 H**
KF 4060 KD 4060	**KF 0600 C**
KF 8100	**KF 1000 H**
KF 4100 KD 4100	**KF 1000 C**
KF 8250	**KF 2500 H**
KF 4250 KD 4250	**KF 2500 C**

Present types	New types
KF 8350	**KF 3500 H**
KF 4350 KD 4350	**KF 3500 C**
KF 8500	**KF 5000 H**
KF 4500	**KF 5000 C**

Robust shape with lots of space for wiring



reddot award 2015
winner

GOLD 2015
pro-K award

Closes quickly by a quarter turn – closed position is visible



Multi-level knockouts for cable glands in different sizes





Cable entry also possible from the rear side



Burning behaviour in glow wire test 960°C
High impact withstand IK 09 (10 joule)

A firework of innovation!

New requirements arise from new challenges. To improve the ENYCASE even further, we have once more revisited and checked each detail. This is the only way to be sure that the most up-to-date product is manufactured, which not only enthuses its users for what is already tried and proven but specifically always for its novelties.

- **tested product solutions from the market leader**
- **safe products with a long useful life**
- **innovative applications with many installation advantages**

All terminals with 2 clamping units per pole



Terminals prevent damage of conductors, also for flexible conductors without ferrule



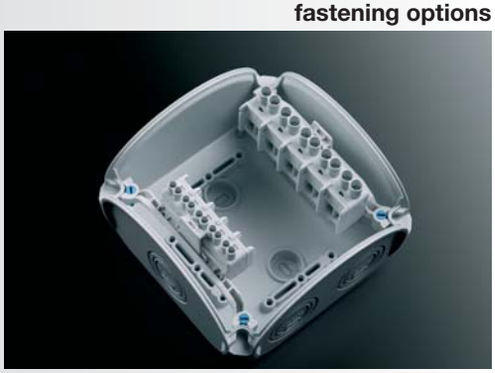


Various conductor cross sections and conductor types



High-position terminals with more space for wiring

Different terminal positions and fastening options





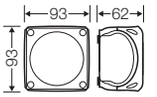
External brackets for fastening are always included



KF 0202 G NEW

1.5-2.5 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 8 x 0,75 mm² f, 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 2 x 4 mm² sol / f
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.5 Nm

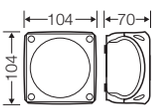
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0402 G NEW

1.5-2.5 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 8 x 0,75 mm² f, 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 2 x 4 mm² sol / f
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

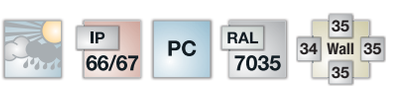
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.5 Nm

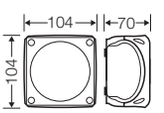
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0404 G NEW

1.5-4 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 8 x 1.5 mm² sol / f, 6 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 2 x 6 mm² sol / f
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal	0.7 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

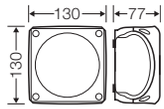
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 0604 G NEW

1.5-4 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 8 x 1.5 mm² sol / f, 6 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 2 x 6 mm² sol / f
- with one cable entry M 25 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal	0.7 Nm

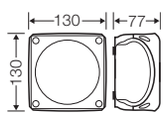
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0606 G NEW

2.5-6 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 4 x 6 mm² sol / f, 2 x 10 mm² sol / f
- with one cable entry M 25 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	40 A
tightening torque for terminal	1.5 Nm

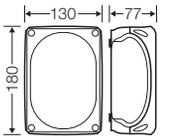
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 1006 G NEW

2.5-6 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 4 x 6 mm² sol / f, 2 x 10 mm² sol / f
- with two cable entries M 25 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	40 A
tightening torque for terminal	1.5 Nm

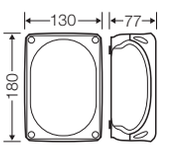
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 1010 G NEW

4-10 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- with two cable entries M 25 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	63 A
tightening torque for terminal	2.0 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

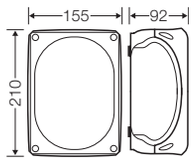
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 1610 G NEW

4-10 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	63 A
tightening torque for terminal	2.0 Nm

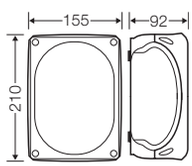
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 1616 G NEW

10-16 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 6 mm² sol, 6 x 10 mm² sol/ f*, 4 x 16 mm² s/ f*, 4 x 25 mm² s/ f*, 2 x 35 mm² s/ f*
  f* = with gas-tight end ferrule
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	102 A
tightening torque for terminal	3.0 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

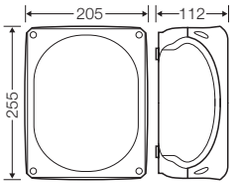


KF 2525 G NEW

10-25 mm², Cu 3~



- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 6 mm² sol, 6 x 10 mm² sol/ f*, 4 x 16 mm² s/ f*, 4 x 25 mm² s/ f*, 2 x 35 mm² s/ f* f* = with gas-tight end ferrule
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	102 A
tightening torque for terminal	3.0 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

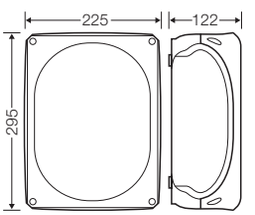


KF 3535 G NEW

16-35 mm², Cu 3~



- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 2 x 50 mm² s
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories



rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	125 A
tightening torque for terminal	12.0 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

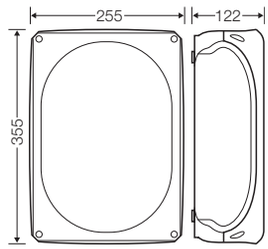
DK Cable junction boxes
"Weatherproof", for outdoor installation cable entry via metric knockouts



KF 5050 G NEW

16-50 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	150 A
tightening torque for terminal	12.0 Nm

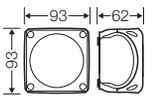
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable junction boxes
"Weatherproof", for outdoor installation cable entry via metric knockouts



KF 0200 G NEW

IP 66/67 | PC | RAL 7035 | 33 / 32 Wall 33 / 33



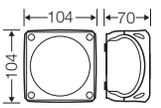
- without terminals
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0400 G NEW

IP 66/67 | PC | RAL 7035 | 35 / 34 Wall 35 / 35



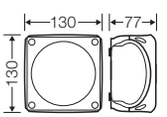
- without terminals
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0600 G NEW

IP 66/67 | PC | RAL 7035 | 37 / 37 Wall 36 / 37



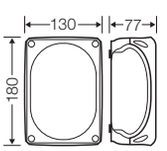
- without terminals
- with one cable entry M 25 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 1000 G NEW

IP 66/67 | PC | RAL 7035 | 37 / 38 Wall 38 / 37



- without terminals
- with two cable entries M 25 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

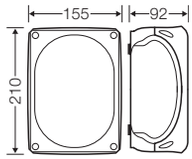
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 1600 G NEW

IP 66/67 | PC | RAL 7035 | 39 / 40 Wall 40 / 39



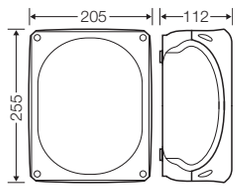
- without terminals
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GI) have been successfully completed.



KF 2500 G NEW

IP 66/67 | PC | RAL 7035 | 41 / 42 Wall 42 / 41



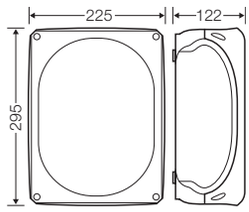
- without terminals
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GI) have been successfully completed.



KF 3500 G NEW

IP 66/67 | PC | RAL 7035 | 41 / 42 Wall 42 / 41



- without terminals
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GI) have been successfully completed.

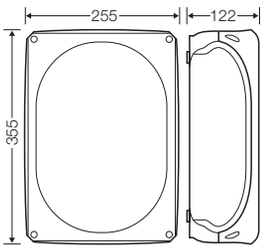
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 5000 G NEW



- without terminals
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories



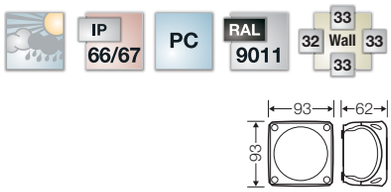
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 0202 B NEW

1.5-2.5 mm², Cu 3~



- terminal with 2 clamping units per pole
- 5-pole per pole 8 x 0,75 mm² f, 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 2 x 4 mm² sol / f
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.5 Nm

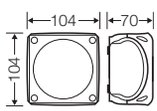
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0402 B NEW

1.5-2.5 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 8 x 0,75 mm² f, 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 2 x 4 mm² sol / f
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.5 Nm

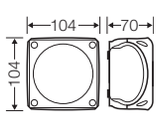
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0404 B NEW

1.5-4 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 8 x 1.5 mm² sol / f, 6 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 2 x 6 mm² sol / f
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal	0.7 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

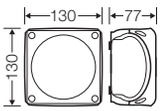
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 0604 B NEW

1.5-4 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 8 x 1.5 mm² sol / f, 6 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 2 x 6 mm² sol / f
- with one cable entry M 25 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

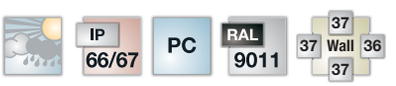
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal	0.7 Nm

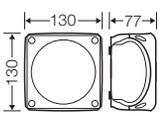
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0606 B NEW

2.5-6 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 4 x 6 mm² sol / f, 2 x 10 mm² sol / f
- with one cable entry M 25 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	40 A
tightening torque for terminal	1.5 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

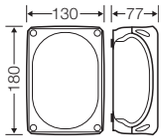
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 1006 B NEW

2.5-6 mm², Cu 3~

IP 66/67 | PC | RAL 9011 | 37 / 38 Wall 38 / 37



- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 4 x 6 mm² sol / f, 2 x 10 mm² sol / f
- with two cable entries M 25 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	40 A
tightening torque for terminal	1.5 Nm

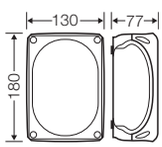
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 1010 B NEW

4-10 mm², Cu 3~

IP 66/67 | PC | RAL 9011 | 37 / 38 Wall 38 / 37



- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- with two cable entries M 25 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	63 A
tightening torque for terminal	2.0 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

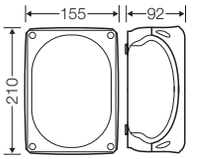
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 1610 B NEW

4-10 mm², Cu 3~

IP 66/67 | PC | RAL 9011 | 39 / 40 Wall 40 / 39



- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	63 A
tightening torque for terminal	2.0 Nm

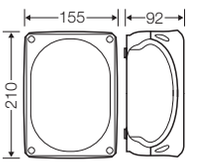
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 1616 B NEW

10-16 mm², Cu 3~

IP 66/67 | PC | RAL 9011 | 39 / 40 Wall 40 / 39



- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 6 mm² sol, 6 x 10 mm² sol/ f*, 4 x 16 mm² s/ f*, 4 x 25 mm² s/ f*, 2 x 35 mm² s/ f*
  f* = with gas-tight end ferrule
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	102 A
tightening torque for terminal	3.0 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

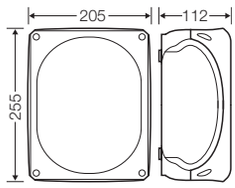
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 2525 B NEW

10-25 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 6 mm² sol, 6 x 10 mm² sol/ f*, 4 x 16 mm² s/ f*, 4 x 25 mm² s/ f*, 2 x 35 mm² s/ f* f* = with gas-tight end ferrule
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	102 A
tightening torque for terminal	3.0 Nm

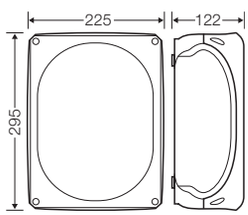
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 3535 B NEW

16-35 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 2 x 50 mm² s
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	125 A
tightening torque for terminal	12.0 Nm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

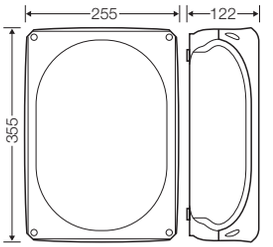
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 5050 B NEW

16-50 mm², Cu 3~





- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	150 A
tightening torque for terminal	12.0 Nm

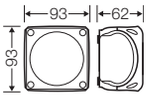
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 0200 B NEW

IP 66/67 | PC | RAL 9011 | 33 / 32 Wall 33 / 33



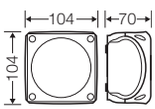
- without terminals
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GI) have been successfully completed.



KF 0400 B NEW

IP 66/67 | PC | RAL 9011 | 35 / 34 Wall 35 / 35



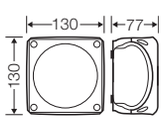
- without terminals
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GI) have been successfully completed.



KF 0600 B NEW

IP 66/67 | PC | RAL 9011 | 37 / 37 Wall 36 / 37



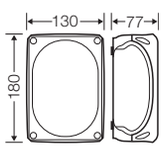
- without terminals
- with one cable entry M 25 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GI) have been successfully completed.



KF 1000 B NEW

IP 66/67 | PC | RAL 9011 | 37 / 38 Wall 38 / 37



- without terminals
- with two cable entries M 25 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GI) have been successfully completed.

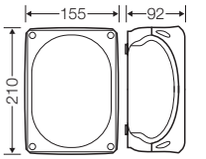
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 1600 B NEW

IP 66/67 | PC | RAL 9011 | 39 / 40 Wall 40 / 39

- without terminals
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories



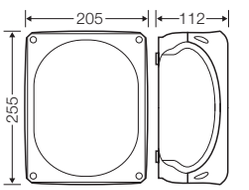
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 2500 B NEW

IP 66/67 | PC | RAL 9011 | 41 / 42 Wall 42 / 41

- without terminals
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories



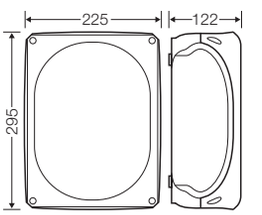
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 3500 B NEW

IP 66/67 | PC | RAL 9011 | 41 / 42 Wall 42 / 41

- without terminals
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- with two cable entries M 32 from the rear side
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories



The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

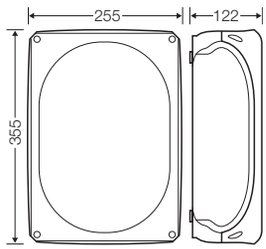
DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Cable entry via metric knockouts



KF 5000 B NEW



- without terminals
- with two cable entries M 32 from the rear side
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- "weatherproof" resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- "offshore applications"
- lid fasteners sealable without accessories



The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable Junction Boxes
”Weatherproof”, for outdoor installation
Box walls without knockouts





- Cable entries can be drilled individually.



- Labelling system



- Closes quickly by a quarter turn – closed position is visible



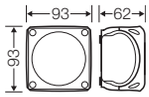
- Burning behaviour:
  Glow-wire test 960°C
  according to IEC 60695-2-11: 960 °C
  flame-retardant, self-extinguishing

DK Cable Junction Boxes
”Weatherproof”, for outdoor installation
Box walls without knockouts



KF 0200 H NEW





- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 20
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

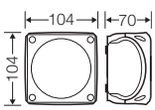
wall thickness of the bottom part	2.0 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0400 H NEW





- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 25
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

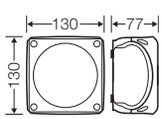
wall thickness of the bottom part	2.0 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0600 H NEW





- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 32
- with one cable entry M 25 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

wall thickness of the bottom part	2.0 mm

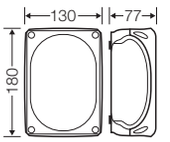
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable Junction Boxes
”Weatherproof”, for outdoor installation
Box walls without knockouts



KF 1000 H NEW

IP 66/67 | PC | RAL 7035



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 32
- with two cable entries M 25 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

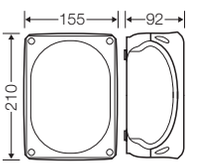
wall thickness of the bottom part	2.0 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 1600 H NEW

IP 66/67 | PC | RAL 7035



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 40
- with two cable entries M 32 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

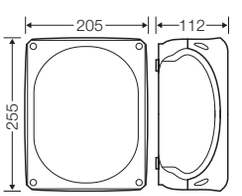
wall thickness of the bottom part	2.6 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 2500 H NEW

IP 66/67 | PC | RAL 7035



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 50
- with two cable entries M 32 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

wall thickness of the bottom part	2.7 mm

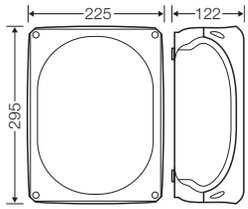
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable Junction Boxes
”Weatherproof”, for outdoor installation
Box walls without knockouts



KF 3500 H NEW





- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 50
- with two cable entries M 32 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

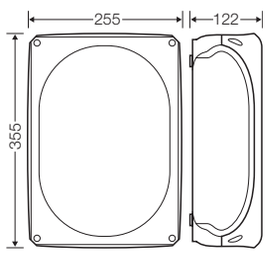
wall thickness of the bottom part	3.0 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 5000 H NEW





- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 63
- with two cable entries M 32 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

wall thickness of the bottom part	3.2 mm

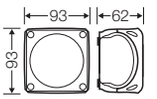
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable Junction Boxes
”Weatherproof”, for outdoor installation
Box walls without knockouts



KF 0200 C NEW

IP 66/67 | PC | RAL 9011



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 20
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

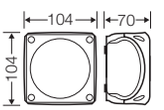
wall thickness of the bottom part	2.0 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0400 C NEW

IP 66/67 | PC | RAL 9011



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 25
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

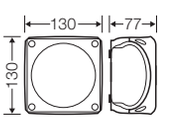
wall thickness of the bottom part	2.0 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 0600 C NEW

IP 66/67 | PC | RAL 9011



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 32
- with one cable entry M 25 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

wall thickness of the bottom part	2.0 mm

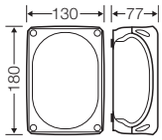
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable Junction Boxes
”Weatherproof”, for outdoor installation
Box walls without knockouts



KF 1000 C NEW

IP 66/67 | PC | RAL 9011



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 32
- with two cable entries M 25 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

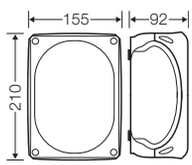
wall thickness of the bottom part	2.0 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 1600 C NEW

IP 66/67 | PC | RAL 9011



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 40
- with two cable entries M 32 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

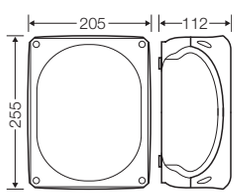
wall thickness of the bottom part	2.6 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 2500 C NEW

IP 66/67 | PC | RAL 9011



- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 50
- with two cable entries M 32 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories

wall thickness of the bottom part	2.7 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

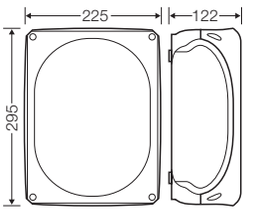
DK Cable Junction Boxes
”Weatherproof”, for outdoor installation
Box walls without knockouts



KF 3500 C NEW

IP 66/67 | PC | RAL 9011

- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 50
- with two cable entries M 32 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories



wall thickness of the bottom part	3.0 mm

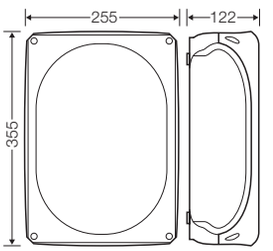
The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.



KF 5000 C NEW

IP 66/67 | PC | RAL 9011

- without terminals
- box walls without knockouts
- wall surface can be drilled individually for cable entry max. M 63
- with two cable entries M 32 from the rear side
- ”weatherproof“ resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc.)
- saltwater-proof
- ”offshore applications“
- lid fasteners sealable without accessories



wall thickness of the bottom part	3.2 mm

The audits by Det Norske Veritas (DNV) and Germanischer Lloyd (GL) have been successfully completed.

DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Accessories



DK KL 02 NEW

Rated connecting capacity: 1.5-4 mm², Cu



- for installation in cable junction boxes via terminal support
- terminal with 2 clamping units per pole
- current carrying capacity: 20 A
- 5-pole per pole 8 x 0,75 mm² f, 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 2 x 4 mm² sol / f
- can be used on terminal supports DK KH 02, DK KH 04 and DK KH 06
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	10 mm
tightening torque for terminal	0.5 Nm





DK KH 02 NEW

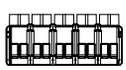
Support for terminals

- support for terminal DK KL 02
- can be used in cable junction boxes KF 02.. X
- lid fasteners sealable without accessories



DK KL 04 NEW

Rated connecting capacity: 1,5-6 mm², Cu



- for installation in cable junction boxes via terminal support
- terminal with 2 clamping units per pole
- current carrying capacity: 32 A
- 5-pole per pole 8 x 1.5 mm² sol / f, 6 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 2 x 6 mm² sol / f
- can be used on teminal supports DK KH 04 and DK KH 06
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	10 mm
tightening torque for terminal	0.7 Nm





DK KH 04 NEW

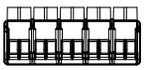
Support for terminals

- support for terminals DK KL 02 and DK KL 04
- can be used in cable junction boxes KF 04.. X
- lid fasteners sealable without accessories



DK KL 06 NEW

Rated connecting capacity: 1,5-10 mm², Cu



- for installation in cable junction boxes via terminal support
- current carrying capacity: 40 A
- terminal with 2 clamping units per pole
- 5-pole per pole 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 4 x 6 mm² sol / f, 2 x 10 mm² sol / f
- can be used on terminal support DK KH 06
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	12 mm
tightening torque for terminal	1.5 Nm



DK KH 06 NEW

Support for terminals

- support for terminals DK KL 02, DK KL 04 and DK KL 06
- can be used in cable junction boxes KF 06.. X and KF 10.. X
- lid fasteners sealable without accessories



DK KS 10 NEW

Rated connecting capacity: 2,5-16 mm², Cu



- for insertion in cable junction boxes
- terminal with 2 clamping units per pole
- current carrying capacity: 63 A
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- for cable junction boxes KF 10.. X
- complete with fixing elements
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	11 mm
tightening torque for terminal	2.0 Nm



DK KS 16 NEW

Rated connecting capacity 6-25 mm², Cu



- for insertion in cable junction boxes
- terminal with 2 clamping units per pole
- current carrying capacity: 102 A
- 5-pole per pole 6 x 6 mm² sol, 6 x 10 mm² sol/ f*, 4 x 16 mm² s/ f*, 4 x 25 mm² s/ f*, 2 x 35 mm² s/ f*
  f* = with gas-tight end ferrule
- for cable junction boxes KF 16.. X
- complete with fixing elements
- lid fasteners sealable without accessories

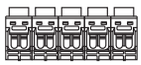
rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	16 mm
tightening torque for terminal	3.0 Nm

DK Cable Junction Boxes
"Weatherproof", for outdoor installation
Accessories



DK KS 25 NEW

Rated connecting capacity: 6-35 mm², Cu



- for insertion in cable junction boxes
- terminal with 2 clamping units per pole
- current carrying capacity: 102 A
- 5-pole per pole 6 x 6 mm² sol, 6 x 10 mm² sol/ f*, 4 x 16 mm² s/ f*, 4 x 25 mm² s/ f*, 2 x 35 mm² s/ f* f* = with gas-tight end ferrule
- for koblingsboxer KF 25.. X
- complete with fixing elements
- lid fasteners sealable without accessories

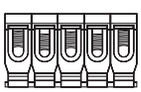
rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	16 mm
tightening torque for terminal	3.0 Nm





DK KS 35 NEW

Rated connecting capacity 16-35 mm², Cu



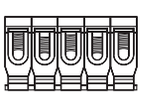
- for insertion in cable junction boxes
- terminal with 2 clamping units per pole
- current carrying capacity: 125 A
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 2 x 50 mm² s
- for cable junction boxes KF 35.. X
- complete with fixing elements
- lid fasteners sealable without accessories

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	20 mm
tightening torque for terminal	12.0 Nm



DK KS 50 NEW

Rated connecting capacity: 16-50 mm², Cu



- for insertion in cable junction boxes
- terminal with 2 clamping units per pole
- current carrying capacity: 150 A
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s
- for cable junction boxes KF 50.. X
- complete with fixing elements
- lid fasteners sealable without accessories

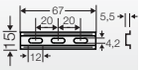
rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	20 mm
tightening torque for terminal	12.0 Nm



DK TS 02

DIN rail

- for cable junction boxes KF 02....
- for the installation of terminal blocks
- with fixing screws

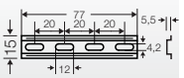




DK TS 04

DIN rail

- for cable junction boxes KF 04....
- for the installation of terminal blocks
- with fixing screws

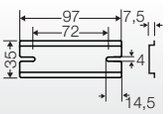




DK TS 06

DIN rail

- for cable junction boxes KF 06....
- for the installation of terminal blocks
- with fixing screws

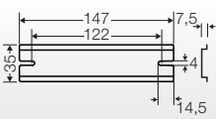




DK TS 10

DIN rail

- for cable junction boxes KF 10....
- for the installation of terminal blocks
- with fixing screws

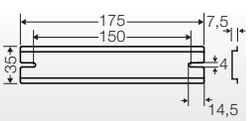




DK TS 16

DIN rail

- for cable junction boxes KF 16....
- for the installation of terminal blocks
- with fixing screws

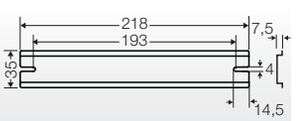




DK TS 25

DIN rail

- for cable junction boxes KF 25....
- for the installation of terminal blocks
- with fixing screws

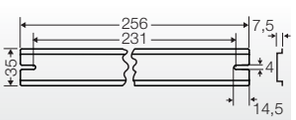




DK TS 35

DIN rail

- for cable junction boxes KF 35.. X
- for the installation of terminal blocks
- with fixing screws

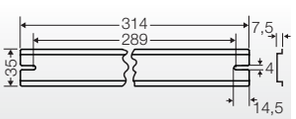




DK TS 50

DIN rail

- for cable junction boxes KF 50.. X
- for the installation of terminal blocks
- with fixing screws





DK BZ 5

Labelling material

PC | RAL 7035

- set with 5 pieces
- for cable junction boxes types KF 02.. x to KF 50.. x from 2.5 to 50 mm², connectable to base of the box
- for attaching of labelling strips or marking with felt tip pen
- inscribable surface 25 x 20 mm



LDM 25 G

Cable feed-through for knockouts in the rear wall M 25

IP 66/67 | RAL 7035

- sealing range: Ø 8-17 mm
- bore-hole: Ø 25.5 mm
- wall thickness 0.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25° to + 55° C
- Glow wire test IEC 60695-2-11: 750 °C



LDM 25 B

Cable feed-through for knockouts in the rear wall M 25

IP 66/67 | RAL 9011

- sealing range: Ø 8-17 mm
- bore-hole: Ø 25.5 mm
- wall thickness 0.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25° to + 55° C
- Glow wire test IEC 60695-2-11: 750 °C



LDM 32 G

Cable feed-through for knockouts in the rear wall M 32

IP 66/67 | RAL 7035

- sealing range: Ø 12-24 mm
- bore-hole: Ø 32.5 mm
- wall thickness 0,5-4,5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25° to + 55° C
- Glow wire test IEC 60695-2-11: 750 °C



LDM 32 B

Cable feed-through for knockouts in the rear wall M 32

IP 66/67 | RAL 9011

- sealing range: Ø 12-24 mm
- bore-hole: Ø 32.5 mm
- wall thickness 0,5-4,5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25° to + 55° C
- Glow wire test IEC 60695-2-11: 750 °C

HENSEL

DK Cable junction boxes

„Weatherproof“ for outdoor installation
Approved for United States and Canada (UL/CSA)
Box walls without knockouts

ENYCASE®





- Cable junction boxes with external brackets made of stainless steel.



- Cable entries can be drilled individually.



- Labelling system for circuit description.
- Label template on the Internet at www.hensel-electric.de - in the ’Downloads’ area.

c UL us
LISTED
Junction Box
46 RB

- Approved for United States and Canada



- Stainless steel cover screws with quick fastening metric thread.
  Reducing cover fixing time.



- Burning behaviour:
  Glow-wire test 960 °C according to IEC 60 695-2-11, flame-retardant, self-extinguishing

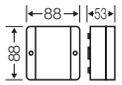
DK Cable junction boxes
„Weatherproof“ for outdoor installation
Approved for United States and Canada (UL/CSA)
Box walls without knockouts



KF 7020

- without terminals
- with UL/CSA approval
- box walls without knockouts
- wall surface can be drilled individually for cable entry M 20, NPT 3/8" and NPT 1/2"





wall thickness of the bottom part	2.3 mm
external brackets	2

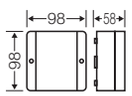




KF 7040

- without terminals
- with UL/CSA approval
- box walls without knockouts
- wall surface can be drilled individually for cable entry M 20, NPT 3/8" and NPT 1/2"





wall thickness of the bottom part	2.3 mm
external brackets	2

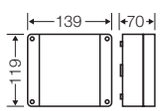




KF 7060

- without terminals
- with UL/CSA approval
- box walls without knockouts
- wall surface can be drilled individually for cable entry M 20/25/32, NPT 3/8", NPT 1/2" and NPT 3/4"





wall thickness of the bottom part	2,6 mm
external brackets	2

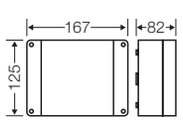




KF 7100

- without terminals
- with UL/CSA approval
- box walls without knockouts
- wall surface can be drilled individually for cable entry M 20/25/32, NPT 3/8", NPT 1/2", NPT 3/4" and 1"

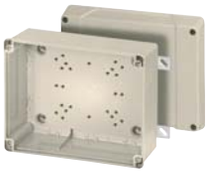




wall thickness of the bottom part	2,8 mm
external brackets	2



DK Cable junction boxes
„Weatherproof“ for outdoor installation
Approved for United States and Canada (UL/CSA)
Box walls without knockouts

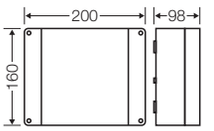


KF 7250



without terminals

- with UL/CSA approval
- box walls without knockouts
- wall surface can be drilled individually for cable entry M 20/25/32, NPT 3/8", NPT 1/2", NPT 3/4" and 1"



wall thickness of the bottom part	3 mm
external brackets	4





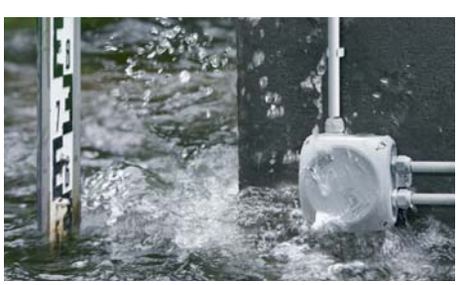
- Cable junction boxes for encapsulating



- In case of re-installation or testing the sealing compound can be removed easily



- The self-sealing durable elastic compound allows to test electrical connections after beeing sealed



- The ingress of water and formation of condensation are completely prevented

Permanent waterproof connection - Cable junction boxes for encapsulating in accordance with DIN VDE V 0606-22-100













Time and time again, electricians come across installation environments whereby the ingress of water into an enclosure must be safely excluded. Even enclosures which have a high degree of protection cannot guarantee this. The IP degree of protection allows the ingress of non-harmful quantities of water in the interior of an enclosure.
Under extreme environmental conditions, for example, the accumulation of condensation may result in damage to the electrical installation or devices or cause these to malfunction.
Ventilation measures will often suffice to prevent harmful condensation from forming.
In many cases, however, ventilation is not possible, e.g. because the cable junction boxes are installed close to rivers and water could enter through the vent holes.

Which applications require waterproof connections?
- Pump shafts
- Ground-level installation ducts in outdoor areas
- Flood areas close to rivers
- Unprotected outdoor installations which are in close proximity to the ground

Why is the IP degree of protection alone not sufficient?
- All degrees of protection allowed water ingress
- The accumulation of condensation cannot always be prevented
- Ventilation measures cannot be applied in all environments

The waterproof connection:
Sealing the cable junction boxes with a fast setting, permanently elastic sealing compound completely the ingress of water and the excludes forming of condensation.
The sealing compound features outstanding insulation properties. As the compound is transparent, it is possible for visual inspections of the installation to be carried out at any time. The durable elastic material is self-sealing, therefore it is also easy for the electrical connections to be tested after they have been sealed.
The sealing compound can be easily removed for repairs, subsequent installations or changes to installations.
Another benefit: the sealed cable junction boxes also offer reliable protection against shock and vibration. The sealing compound does not, however, provide strain relief as it only adheres to material and does not stick together. Suitable cable entries must also be used here, e.g. Hensel AKM.





The ingress of water and formation of condensation are completely prevented.
The sealing compound can be easily removed for subsequent installations or inspections.



Reference table: Cable junction boxes for encapsulating, "waterproof", old-new

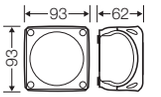
	Present types	New types
	KF WP 3025	**WP 0202 G** **WP 0402 G**
	KF WP 3045	**WP 0404 G** **WP 0604 G**
	KF WP 3065	**WP 0606 G** **WP 1006 G**
	KF WP 3105	**WP 1010 G**
	KF WP 2025	**WP 0202 B** **WP 0402 B**
	KF WP 2045	**WP 0404 B** **WP 0604 B**
	KF WP 2065	**WP 0606 B** **WP 1006 B**
	KF WP 2105	**WP 1010 B**



WP 0202 G NEW

1.5-2.5 mm², Cu 3~





- with terminals
- 5-pole per pole 8 x 0,75 mm² f, 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 2 x 4 mm² sol / f
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 350 ml

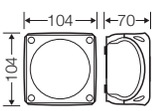
degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.5 Nm



WP 0402 G NEW

1.5-2.5 mm², Cu 3~





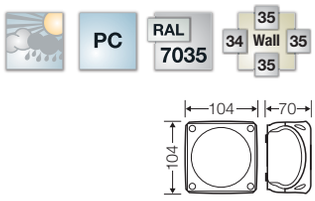
- with terminals
- 5-pole per pole 8 x 0,75 mm² f, 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 2 x 4 mm² sol / f
- cable entries via knockouts, order AKM separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 500 ml

degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.5 Nm



WP 0404 G NEW

1.5-4 mm², Cu 3~



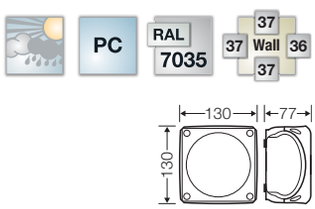
- with terminals
- 5-pole per pole 8 x 1.5 mm² sol / f, 6 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 2 x 6 mm² sol / f
- Cable entries via knockouts, order AKM separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 500 ml

Degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal	0.7 Nm



WP 0604 G NEW

1.5-4 mm², Cu 3~



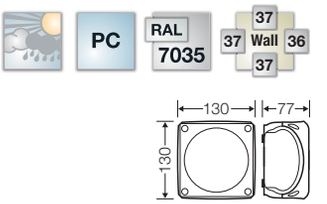
- with terminals
- 5-pole per pole 8 x 1.5 mm² sol / f, 6 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 2 x 6 mm² sol / f
- Cable entries via knockouts, order AKM separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 850 ml

degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal	0.7 Nm



WP 0606 G NEW

2.5-6 mm², Cu 3~



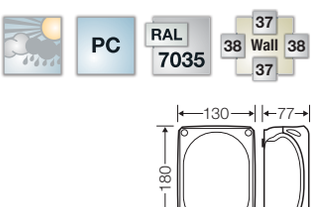
- with terminals
- 5-pole per pole 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 4 x 6 mm² sol / f, 2 x 10 mm² sol / f
- Cable entries via knockouts, order AKM separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 850 ml

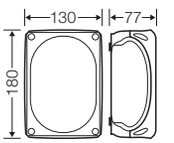
degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	40 A
tightening torque for terminal	1.5 Nm



WP 1006 G NEW

2.5-6 mm², Cu 3~





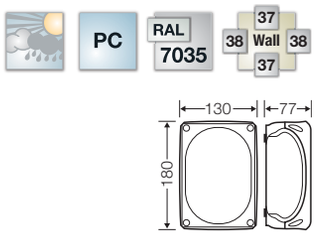
- with terminals
- 5-pole per pole 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 4 x 6 mm² sol / f, 2 x 10 mm² sol / f
- Cable entries via knockouts, order AKM separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 1200 ml

degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	40 A
tightening torque for terminal	1.5 Nm



WP 1010 G NEW

4-10 mm², Cu 3~



- with terminals
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- Cable entries via knockouts, order AKM separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 1200 ml

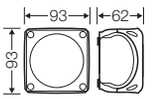
degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	63 A
tightening torque for terminal	2.0 Nm



WP 0202 B NEW

1.5-2.5 mm², Cu 3~





- with terminals
- 5-pole per pole 8 x 0,75 mm² f, 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 2 x 4 mm² sol / f
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 350 ml

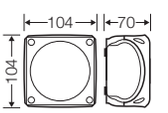
degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.5 Nm



WP 0402 B NEW

1.5-2.5 mm², Cu 3~





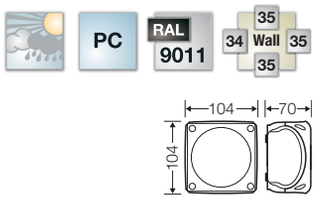
- with terminals
- 5-pole per pole 8 x 0,75 mm² f, 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 2 x 4 mm² sol / f
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 500 ml

degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	20 A
tightening torque for terminal	0.5 Nm



WP 0404 B NEW

1.5-4 mm², Cu 3~



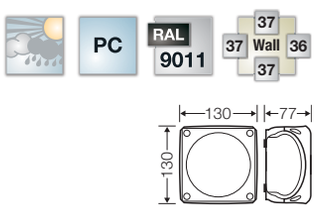
- with terminals
- 5-pole per pole 8 x 1.5 mm² sol / f, 6 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 2 x 6 mm² sol / f
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 500 ml

degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal	0.7 Nm



WP 0604 B NEW

1.5-4 mm², Cu 3~



- with terminals
- 5-pole per pole 8 x 1.5 mm² sol / f, 6 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 2 x 6 mm² sol / f
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 850 ml

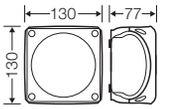
degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	32 A
tightening torque for terminal	0.7 Nm



WP 0606 B NEW

1.5-6 mm², Cu 3~

PC | RAL 9011 | 37 Wall 36 (37 top, 37 bottom)



- with terminals
- 5-pole per pole 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 4 x 6 mm² sol / f, 2 x 10 mm² sol / f
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 850 ml

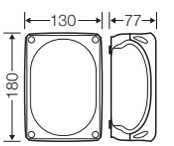
degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	40 A
tightening torque for terminal	1.5 Nm



WP 1006 B NEW

2.5-6 mm², Cu 3~

PC | RAL 9011 | 37 Wall 38 (37 top, 37 bottom)



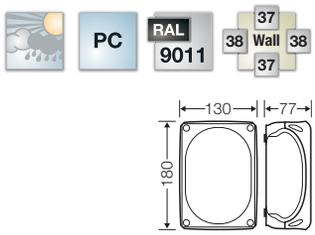
- with terminals
- 5-pole per pole 6 x 1.5 mm² sol / f, 4 x 2.5 mm² sol / f, 4 x 4 mm² sol / f, 4 x 6 mm² sol / f, 2 x 10 mm² sol / f
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 1200 ml

degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	40 A
tightening torque for terminal	1.5 Nm



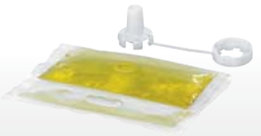
WP 1010 B NEW

4-10 mm², Cu 3~



- with terminals
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- cable entries via knockouts, order ASS separately (see cable entry systems LES)
- cable junction box for encapsulating
- for ground installation without live loads or in risk of condensation formation and ingress of liquids
- installation under water without chemical additives up to a depth of 1 meter possible in the long term
- usable for heating cable / heating tape up to max. 70 °C surface temperature
- with sealing compound and sealing plug
- in case of re-installation or testing the sealing compound can be removed easily
- durability of sealing compound to processing ≥ 12 months
- enclosure volume 1200 ml

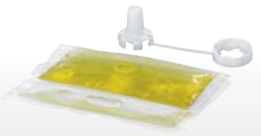
degree of protection	For totally encapsulated cable junction boxes the degree of protection of enclosures according to DIN EN 60529 is not applicable.
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	63 A
tightening torque for terminal	2.0 Nm



GH 0350

Set sealing compound, 350 ml

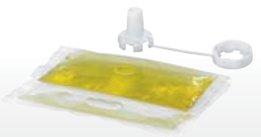
- as spares
- sealing compound for refilling after changes or repairs
- durability of sealing compound to processing ≥ 12 months



GH 0500

Set sealing compound, 500 ml

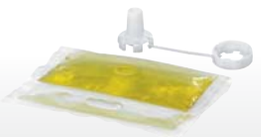
- as spares
- sealing compound for refilling after changes or repairs
- durability of sealing compound to processing ≥ 12 months



GH 0850

Set sealing compound, 850 ml

- as spares
- sealing compound for refilling after changes or repairs
- durability of sealing compound to processing ≥ 12 months



GH 1200

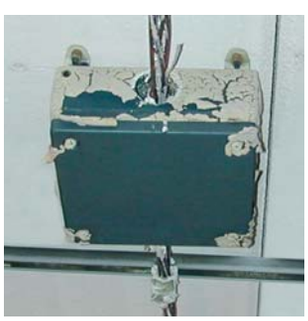
Set sealing compound, 1200 ml

- as spares
- sealing compound for refilling after changes or repairs
- durability of sealing compound to processing ≥ 12 months

DK Cable Junction Boxes
Tested for intrinsic fire resistance
With included grommets







Cable junction boxes IP 65 / IP 66 according to IEC 60670-22, tested for intrinsic fire resistance.

FK Cable junction boxes comply with these requirements when used together with type-approved cables as well as suitable cable clamps or mounting devices.

- Cable junction boxes tested for intrinsic fire resistance
- Intrinsic fire resistance according to DIN 4102 part 12 (German standard) together with function-retaining cables of 0.5-16 mm²
- Cover with 4 captive screws
- Pastel orange RAL 2003

Material: Insulating material / Duroplast

Special characteristics:

- Degree of protection: IP 65
- Impact strength: IK 06 (1 Joule)
- Mounting via internal fixing with approved universal anchors (included)
- Halogen-free
- Protection against electric shock: insulated

Material: Sheet steel, powder-coated

Special characteristics:

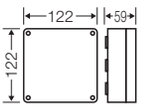
- Degree of protection: IP 66
- Impact strength: IK 10 (20 Joule)
- Mounting via external brackets for use with fixings approved by the building authorities
- Halogen-free
- Protection against electric shock: earthed
- No additional fire load, no toxic or corrosive emissions
- Protection against direct contact also maintained due to the box



FK 7045

IP 65 | Duro-plastic | RAL 2003 | 7 Wall 7

Cable junction box Ø 0.8 mm / 0.5-1.5 mm², Cu
Connection box Ø 0.8 mm / 0.5-4 mm², Cu



- 5-pole per pole 4 x Ø 0.8 mm / 0.5 mm² sol, 4 x 1.5 mm² sol, 2 x 2.5 mm² sol, 2 x 4 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry 4 EDKF 32, sealing range Ø 8-23 mm
- intrinsic fire resistance in accordance with DIN 4102 part 12 in combination with function-retaining cables
- tested with the cable manufacturers Dätwyler, Eupen, Studer, Prysmian and Nexans for the intrinsic fire resistance E30 and E90, see test certificate no.: P-MPA-E-08-021, valid till September 22, 2019, download available from www.hensel-electric.de
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor

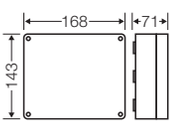
rated insulation voltage	U_i = 400 V a.c./d.c.
current carrying capacity	32 A



FK 7105

IP 65 | Duro-plastic | RAL 2003 | 7 9 Wall 9 7

Cable junction box 1.5-4 mm², Cu
Connection box 1.5-10 mm², Cu



- 5-pole per pole 4 x 1.5 mm² sol, 4 x 2.5 mm² sol, 4 x 4 mm² sol, 2 x 6 mm² sol, 2 x 10 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry 4 EDKF 40, sealing range Ø 11-30 mm
- intrinsic fire resistance in accordance with DIN 4102 part 12 in combination with function-retaining cables
- tested with the cable manufacturers Dätwyler, Eupen, Studer, Prysmian and Nexans for the intrinsic fire resistance E30 and E90, see test certificate no.: P-MPA-E-08-021, valid till September 22, 2019, download available from www.hensel-electric.de
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor

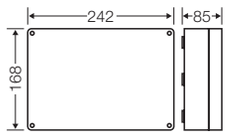
rated insulation voltage	U_i = 400 V a.c./d.c.
current carrying capacity	40 A

DK Cable Junction Boxes
Tested for intrinsic fire resistance
With included grommets



FK 7165





Cable junction box 1.5-6 mm², Cu
Connection box 1.5-16 mm², Cu

- 5-pole per pole 4 x 1.5 mm² sol, 4 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 2 x 10 mm² sol, 2 x 16 mm² r (remove cable protection)
- connecting terminal made from ceramic with resistance to high temperatures
- included cable entry 4 EDKF 40, sealing range Ø 11-30 mm
- intrinsic fire resistance in accordance with DIN 4102 part 12 in combination with function-retaining cables
- tested with the cable manufacturers Dätwyler, Eupen, Studer, Prysmian and Nexans for the intrinsic fire resistance E30 and E90, see test certificate no.: P-MPA-E-08-021, valid till September 22, 2019, download available from www.hensel-electric.de
- screw anchors enclosed can be used for concrete C20/25, limestone blocks KSV 12, building bricks MZ 12 and clinker bricks KS 12
- for normal environment and protected outdoor

rated insulation voltage	U_i = 400 V a.c./d.c.
current carrying capacity	63 A

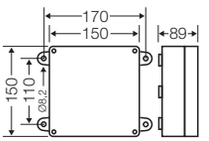
DK Cable Junction Boxes
Tested for intrinsic fire resistance
Cable entry via mounted grommets



FK 9025

IP 66 | Sheet steel | RAL 2003 | Wall 7 | 7

Cable junction box Ø 0.8 mm / 0.5-1.5 mm², Cu
Connection box Ø 0.8 mm / 0.5-4 mm², Cu



- 5-pole per pole 4 x Ø 0.8 mm / 0.5 mm² sol, 4 x 1.5 mm² sol, 2 x 2.5 mm² sol, 2 x 4 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- mounted grommets 4 EDKF 32, sealing range: Ø 8-23 mm, closed
- intrinsic fire resistance in accordance with DIN 4102 part 12 in combination with function-retaining cables
- tested with cable manufacturers Dätwyler, Eupen, Nexans, Studer, Pirelli and Lynenwerk for the intrinsic fire resistance E30 and E90, see test certificate no.: P-MPA-E-02-032, valid till March 20, 2018, download available from www.hensel-electric.de
- mounted using exterior wall fixings, bore hole 8.2 mm(for dowels refer to technical data)
- for normal environment and protected outdoor

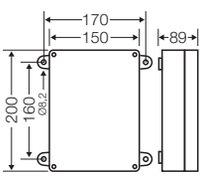
rated insulation voltage	U_i = 400 V a.c./d.c.
current carrying capacity	32 A



FK 9105

IP 66 | Sheet steel | RAL 2003 | Wall 7 | 7

Cable junction box 1.5-4 mm², Cu
Connection box 1.5-10 mm², Cu



- 5-pole per pole 4 x 1.5 mm² sol, 4 x 2.5 mm² sol, 4 x 4 mm² sol, 2 x 6 mm² sol, 2 x 10 mm² sol
- connecting terminal made from ceramic with resistance to high temperatures
- mounted grommets 4 EDKF 32, sealing range: Ø 8-23 mm, closed
- intrinsic fire resistance in accordance with DIN 4102 part 12 in combination with function-retaining cables
- tested with cable manufacturers Dätwyler, Eupen, Nexans, Studer, Pirelli and Lynenwerk for the intrinsic fire resistance E30 and E90, see test certificate no.: P-MPA-E-02-032, valid till March 20, 2018, download available from www.hensel-electric.de
- mounted using exterior wall fixings, bore hole 8.2 mm(for dowels refer to technical data)
- for normal environment and protected outdoor

rated insulation voltage	U_i = 400 V a.c./d.c.
current carrying capacity	40 A

DK Cable Junction Boxes
Tested for intrinsic fire resistance
Cable entry via mounted grommets

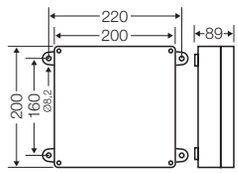


FK 9255



Cable junction box 1.5-6 mm², Cu
Connection box 1.5-16 mm², Cu

- 5-pole per pole 4 x 1.5 mm² sol, 4 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 2 x 10 mm² sol, 2 x 16 mm² r (remove cable protection)
- connecting terminal made from ceramic with resistance to high temperatures
- mounted grommets 4 EDKF 40, sealing range Ø 11-30 mm, closed
- intrinsic fire resistance in accordance with DIN 4102 part 12 in combination with function-retaining cables
- tested with cable manufacturers Dätwyler, Eupen, Nexans, Studer, Pirelli and Lynenwerk for the intrinsic fire resistance E30 and E90, see test certificate no.: P-MPA-E-02-032, valid till March 20, 2018, download available from www.hensel-electric.de
- mounted using exterior wall fixings, bore hole 8.2 mm(for dowels refer to technical data)
- for normal environment and protected outdoor



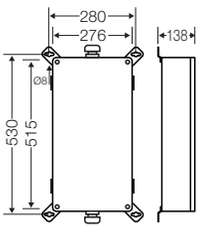
rated insulation voltage	U_i = 400 V a.c./d.c.
current carrying capacity	63 A



FK 6505

Cable junction box E90 16-35 mm², Cu, "r"
Connection box E90 16-50 mm², Cu, "r"





- 5-pole per pole 6 x 16 mm² r, 4 x 25 mm² r, 4 x 35 mm² r, 2 x 50 mm² r
- connecting terminal made from ceramic with resistance to high temperatures
- mounted cable entries 2 ASS 63, sealing range Ø 20-48 mm
- on the longitudinal sides each with 2 locking screws M 50
- intrinsic fire resistance in accordance with DIN 4102 part 12 in combination with function-retaining cables
- tested with cable manufacturers Dätwyler, Prysmian and Eupen for the intrinsic fire resistance E90, see test certificate no.: P-1011 DMT DO, download at www.hensel-electric.de > Type - Documents
- mounted using exterior wall fixings, keyhole 8 mm (dowel refer to technical data)
- for normal environment and protected outdoor

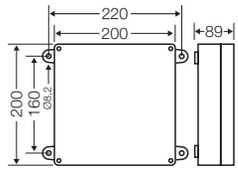
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	150 A
tightening torque for terminal	4,0 Nm
material	External brackets for wall fixing: Stainless steel 1.4462, resistance class IV Enclosure including lid and outer screws: Stainless steel 1.4571, resistance class III powder-coated



FK 9259

Cable junction box 1.5-10 mm², Cu



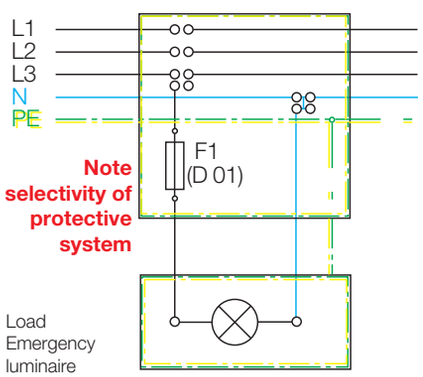


- cable junction box with fused outgoing unit
- D 01 neozed fuse base
- 5-pole terminal with 2 connecting terminals, 2 junction terminals and 2 PE terminals, each 1.5-10 mm² sol
- terminal block made from ceramic with resistance to high temperatures
- mounted grommets 4 EDKF 40, sealing range Ø 11-30 mm, closed
- intrinsic fire resistance E 30 in accordance with DIN 4102 part 12
- the use of this equipment requires the approval from the building and regulatory authorities for the individual case
- tested with cable manufacturers Dätwyler and Nexans for the intrinsic fire resistance E30, see test certificate no.: P-MPA-E-02-032, valid till March 20, 2018, download available from www.hensel-electric.de
- mounted using exterior wall fixings, bore hole 8.2 mm(for dowels refer to technical data)
- for normal environment and protected outdoor

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	40 A

FK 9259, with fused outgoing circuit
Can be used in emergency lighting in installations that cover a large area (e.g. tunnels).
The use of a fused branch circuit makes it possible to supply a group of emergency luminaires with one supply lead.
If one or several emergency luminaires are damaged during a fire, the back-up fuse is tripped and ensures that the power supply of the common supply lead is maintained.

The use of this equipment requires approval from the planning department and building control office for individual cases.



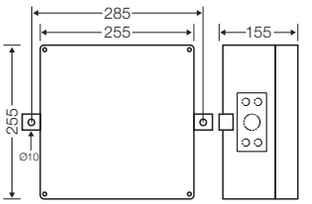
DK Cable Junction Boxes
Tested for intrinsic fire resistance
Communication Box



FK 5000



Communication junction box E30 for the installation of connecting device for telecommunications



- without terminals
- with mounting brackets for the installation of connecting device for telecommunications
- intrinsic fire resistance in accordance with DIN 4102 part 12 in combination with function-retaining cables
- cable entry via integrated elastic membranes
- cable entry on 4 sides each 1 x up to Ø 36 mm and 4 x up to Ø 14 mm
- the attached screw anchors must be used for concrete ≥ C20/25, B25 up to ≤ C50/60, B55
- the use of this equipment requires the approval from the building and regulatory authorities for the individual case
- general approval by the German building authorities DIBt: Z-86.1-37, Celsion fire protection systems, download at www.hensel-electric.de > FK 5000 - documents

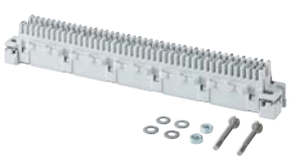


FK 5110

Connecting device for telecommunications screwless for 10 pairs

- LSA connection technology, solder and screwless, no insulation removal is required
- for installation on mounting brackets in FK 5000
- suitable for a solid conductor with diameter of 0.4 up to 0.8 mm or for two identical solid conductors with diameters of 0.4 up to 0.65 mm
- outer diameter of insulation 0.7 up to 1.6 mm
- with fixing screws

rated insulation voltage	U_i = 100 V a.c. U_i = 125 V d.c.
current carrying capacity	solid conductor up to Ø 0.6 mm max. 2.1 A solid conductor Ø 0.8 mm max. 5.0 A



FK 5120

Connecting device for telecommunications screwless for 20 pairs

- LSA connection technology, solder and screwless, no insulation removal is required
- for installation on mounting brackets in FK 5000
- suitable for a solid conductor with diameter of 0.4 up to 0.8 mm or for two identical solid conductors with diameters of 0.4 up to 0.65 mm
- outer diameter of insulation 0.7 up to 1.6 mm
- with fixing screws

rated insulation voltage	U_i = 100 V a.c. U_i = 125 V d.c.
current carrying capacity	solid conductor up to Ø 0.6 mm max. 2.1 A solid conductor Ø 0.8 mm max. 5.0 A

DK Cable Junction Boxes
Tested for intrinsic fire resistance
Communication Box



FK 5210

Connecting device for telecommunications
Screw-type connection for 10 pairs

- screw/screw connection technology
- for installation on mounting brackets in FK 5000
- suitable for a solid conductor with diameter of 0.4 up to 0.8 mm or for two identical solid conductors with diameters of 0.4 up to 0.65 mm
- with fixing screws
- with labelling strips

rated insulation voltage	U_i = 100 V a.c. U_i = 125 V d.c.
current carrying capacity	solid conductor up to Ø 0.6 mm max. 2.1 A solid conductor Ø 0.8 mm max. 5.0 A



FK 5220

Connecting device for telecommunications
screw-type connection for 20 pairs

- screw/screw connection technology
- for installation on mounting brackets in FK 5000
- suitable for a solid conductor with diameter of 0.4 up to 0.8 mm or for two identical solid conductors with diameters of 0.4 up to 0.65 mm
- with fixing screws
- with labelling strips

rated insulation voltage	U_i = 100 V a.c. U_i = 125 V d.c.
current carrying capacity	solid conductor up to Ø 0.6 mm max. 2.1 A solid conductor Ø 0.8 mm max. 5.0 A

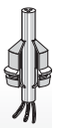


EDKF 32

Grommets
for knockouts M 32

IP 66 | TPE | RAL 2003

- sealing range: Ø 8-23 mm
- bore-hole: Ø 32.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25° to + 35° C
- glow wire test IEC 60695-2-11: 750° C



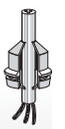


EDKF 40

Grommets
for knockouts M 40

IP 66 | TPE | RAL 2003

- sealing range:Ø 11-30 mm
- bore-hole: Ø 40.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25° to + 35° C
- glow wire test IEC 60695-2-11: 750° C

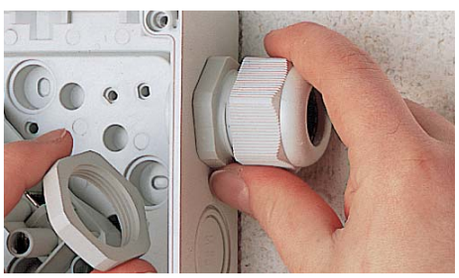


DK Cable Junction Boxes
For safety lighting circuits
Cable entry via metric knockouts





- Cable junction boxes for security lighting circuits with red lid.



- Degree of protection IP 65 using cable glands ASM.. available as an accessory



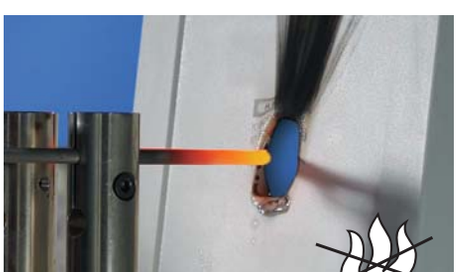
- Labelling system for circuit description.
- Label template on the Internet at www.hensel-electric.de - in the 'Downloads' area.



- Terminal box for equipotential bonding cables.



- Stainless steel cover screws with quick fastening metric thread. Reducing cover fixing time.



- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing

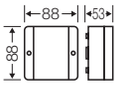
DK Cable Junction Boxes
For safety lighting circuits
Cable entry via metric knockouts



D 9225

1.5-2.5 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 3 Wall 3 (3 / 1)



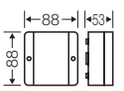
- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol
- included cable entry: 4 ESM 20, sealing range Ø 6-13 mm
- for safety lighting circuits
- with red lid RAL 3000
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm



D 9220

IP 55 ESM | IP 65 | PS | RAL 7035 | 3 Wall 3 (3 / 1)



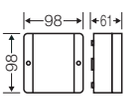
- without terminals
- for safety lighting circuits
- with red lid RAL 3000
- included cable entry: 4 ESM 20, sealing range Ø 6-13 mm
- for normal environment and protected outdoor



D 9245

1.5-4 mm², Cu 3~

IP 55 ESM | IP 65 | PS | RAL 7035 | 4 Wall 4 (4 / 2)



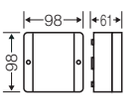
- with terminals
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol, 2 x 6 mm² sol
- included cable entry: 4 ESM 25, sealing range Ø 9-17 mm
- for safety lighting circuits
- with red lid RAL 3000
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
tightening torque for terminal	1.2 Nm



D 9240

IP 55 ESM | IP 65 | PS | RAL 7035 | 4 Wall 4 (4 / 2)



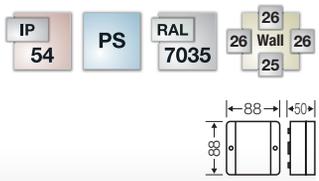
- without terminals
- for safety lighting circuits
- with red lid RAL 3000
- included cable entry: 4 ESM 25, sealing range Ø 9-17 mm
- for normal environment and protected outdoor

DK Cable Junction Boxes
For equipotential bonding conductors
Cable entry via removable grommets



DP 9026

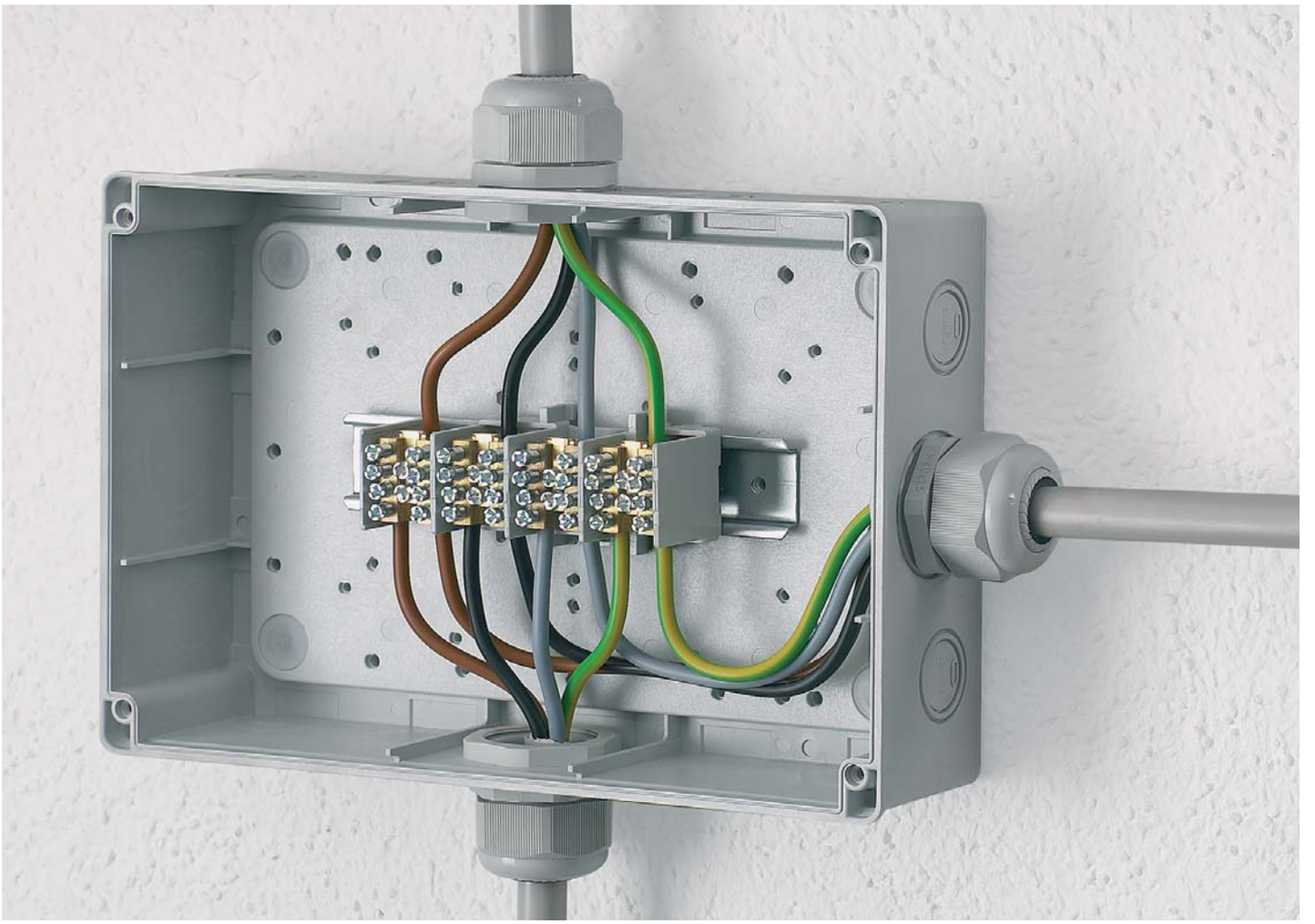
4-25 mm² / 4-10 mm², Cu



- with terminals
- 1-pole 1 x 4-25 mm², 5 x 4-10 mm² (16 mm² sol)
- for equipotential bonding cables
- included cable entry: 4 DPS 02, sealing range Ø 10-13.5 mm
- for normal environment and protected outdoor

DK Cable Junction Boxes

With main line branch terminals for copper conductors, sealable Cable entry via metric knockouts





- Degree of protection IP 65 using cable glands ASM.. available as an accessory



- Labelling system for circuit description.
- Label template on the Internet at www.hensel-electric.de - in the 'Downloads' area.



- Stainless steel cover screws with quick fastening metric thread. Reducing cover fixing time.



- DK cable junction boxes with main branch terminals for copper conductors are equipped with sealable lids.



- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing

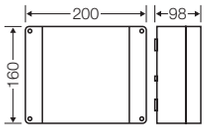
With main line branch terminals for copper conductors, sealable
Cable entry via metric knockouts



K 9259

6-25 mm², Cu

IP 55 ESM | IP 65 | PS | RAL 7035 | 16 / 8 Wall 8 / 11



- with main line branch terminals for copper conductors
- 4-pole per pole terminals for incoming cables: 10-25 mm² r, 6-16 mm² f, with end ferrule, terminals for outgoing cables: 6-16 mm² r, 4-10 mm² with end ferrule
- with sealing facility
- included cable entry: 3 ESM 40, sealing range Ø 17-30 mm
- for normal environment and protected outdoor

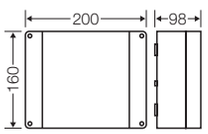
rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	80 A
tightening torque for terminal	3.0 Nm terminals for incoming cables terminals for outgoing cables 3.0 Nm



K 9258

6-25 mm², Cu

IP 55 ESM | IP 65 | PS | RAL 7035 | 16 / 8 Wall 8 / 11



- with main line branch terminals for copper conductors
- 5-pole, per pole terminals for incoming cables 10-25 mm² r, 6-16 mm² f, with end ferrule, terminals for outgoing cables 6-16 mm² r, 4-10 mm² f with end ferrule
- with sealing facility
- included cable entry: 3 ESM 40, sealing range Ø 17-30 mm
- for normal environment and protected outdoor

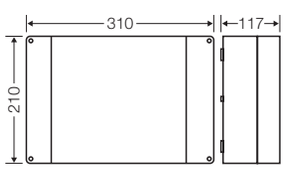
rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	80 A
tightening torque for terminal	3.0 Nm terminals for incoming cables terminals for outgoing cables 3.0 Nm



K 9508

6-25 mm², Cu

IP 55 ESM | IP 65 | PS | RAL 7035 | 17 / 12 Wall 12 / 17



- with main line branch terminals for copper conductors
- 4-pole per pole terminals for incoming cables: 10-25 mm² r, 6-16 mm² f, with end ferrule, terminals for outgoing cables: 6-16 mm² r, 4-10 mm² with end ferrule
- with sealing facility
- cable entries via knockouts, order AKM/ASM separately (see cable entry systems LES)
- for normal environment and protected outdoor

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	80 A
tightening torque for terminal	3.0 Nm terminals for incoming cables terminals for outgoing cables 3.0 Nm

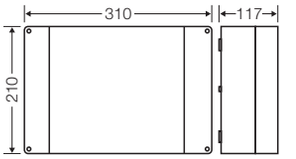
With main line branch terminals for copper conductors, sealable Cable entry via metric knockouts



K 9503

6-25 mm², Cu

IP ESM 55 | IP 65 | PS | RAL 7035 | 17 12 Wall 12 17



- with main line branch terminals for copper conductors
- 5-pole, per pole terminals for incoming cables 10-25 mm² r, 6-16 mm² f, with end ferrule, terminals for outgoing cables 6-16 mm² r, 4-10 mm² f with end ferrule
- with sealing facility
- cable entries via knockouts, order AKM/ASM separately (see cable entry systems LES)
- for normal environment and protected outdoor

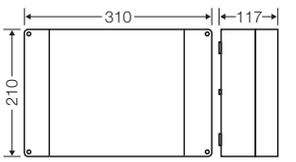
rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	80 A
tightening torque for terminal	3.0 Nm terminals for incoming cables terminals for outgoing cables 3.0 Nm



K 9509

6-35 mm², Cu

IP ESM 55 | IP 65 | PS | RAL 7035 | 17 12 Wall 12 17



- with main line branch terminals for copper conductors
- 4-pole per pole terminals for incoming cables: 16-35 mm² r, 10-25 mm² f, with end ferrule, terminals for outgoing cables: 10-25 mm² r, 6-16 mm² f with end ferrule
- with sealing facility
- cable entries via knockouts, order AKM/ASM separately (see cable entry systems LES)
- for normal environment and protected outdoor

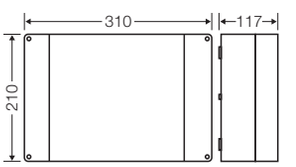
rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	100 A
tightening torque for terminal	4.0 Nm terminals for incoming cables terminals for outgoing cables 3.0 Nm



K 9507

6-35 mm², Cu

IP ESM 55 | IP 65 | PS | RAL 7035 | 17 12 Wall 12 17

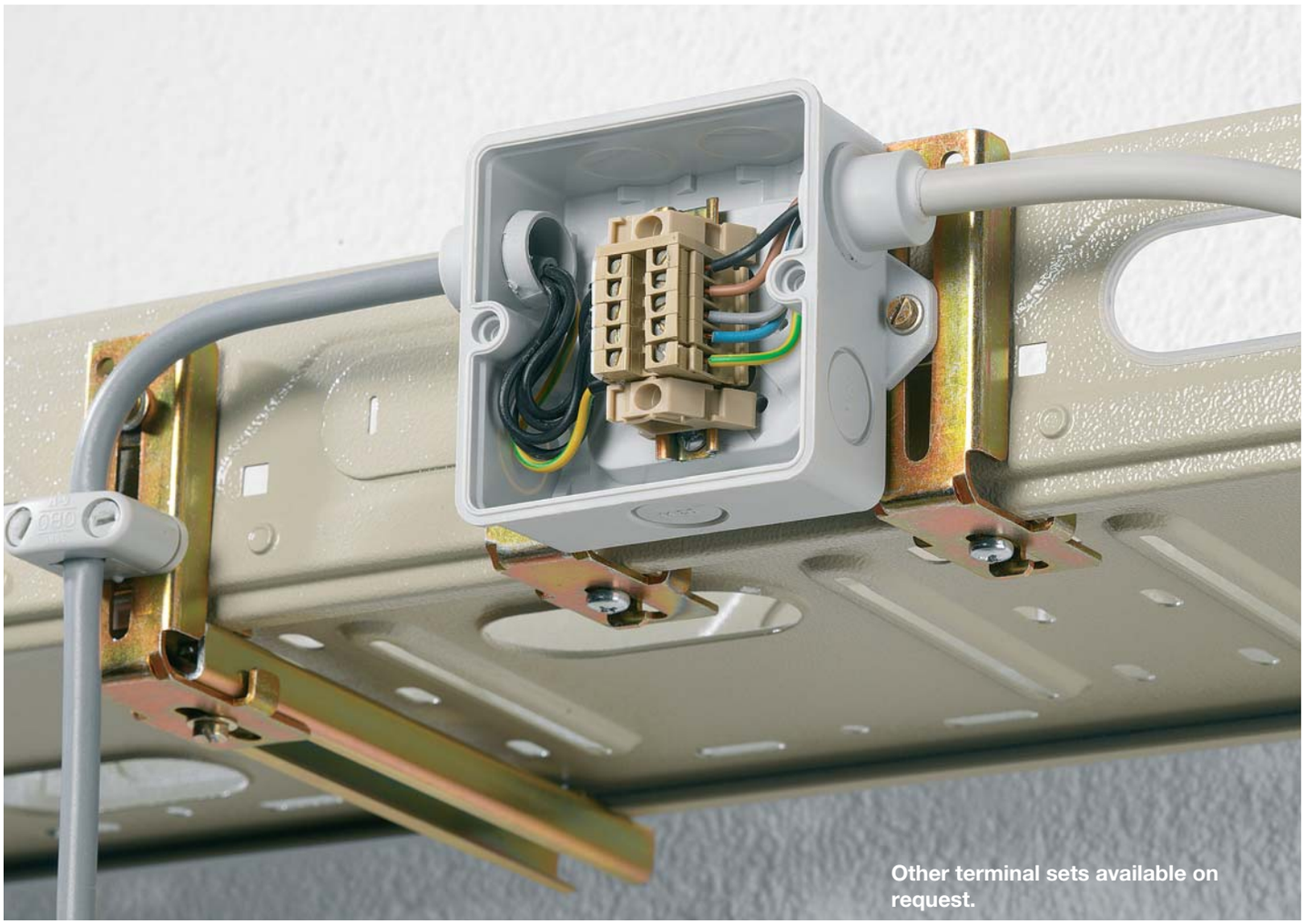


- with main line branch terminals for copper conductors
- 5-pole per pole incoming terminals 16-35 mm² r, 10-25 mm² f, with end ferrule,
  outgoing cables 10-25 mm² r, 6-16 mm² f with end ferrule
- with sealing facility
- cable entries via knockouts, order AKM/ASM separately (see cable entry systems LES)
- for normal environment and protected outdoor

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	100 A
tightening torque for terminal	4.0 Nm terminals for incoming cables terminals for outgoing cables 3.0 Nm

DK Cable Junction Boxes

With terminal blocks for aluminium- and copper conductors
Cable entry via metric knockouts





- Stainless steel cover screws with quick fastening metric thread. Reducing cover fixing time.



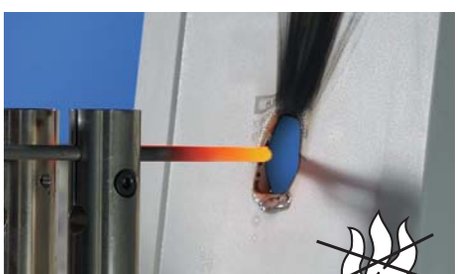
- Labelling system for circuit description.
- Label template on the Internet at www.hensel-electric.de - in the 'Downloads' area.



- Included accessories as listed: grommets ESM = IP 55



- DK cable junction boxes with main branch terminals for copper conductors are equipped with sealable lids.



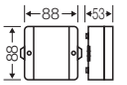
- Burning behaviour: Glow wire test according to IEC 60695-2-11: 750 °C, flame-retardant, self-extinguishing



RD 9123

1.5-2.5 mm²

IP 65 | PS | RAL 7035 | 3 Wall 3 / 1



- 3 terminal blocks WKM 2.5/15
- per terminal 2 x 0,5-2.5 mm² f, 2 x 0,5-4 mm² sol or 2 x 1,5-2.5 mm² s, see Technical details for more information about terminal assignment
- terminal blocks, by Wieland
- for aluminium and copper conductors
- terminal marking, neutral
- cable entries via knockouts order ESM/AKM separately (see cable entry systems LES)
- with external fixing
- for normal environment and protected outdoor

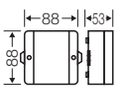
rated insulation voltage	U_i = 500 V a.c./d.c.
current carrying capacity	24 A
tightening torque for terminal	0.4 Nm



RD 9125

1.5-2.5 mm²

IP 65 | PS | RAL 7035 | 3 Wall 3 / 1



- 5 terminal blocks WKM 2.5/15
- per terminal 2 x 0,5-2.5 mm² f, 2 x 0,5-4 mm² sol or 2 x 1,5-2.5 mm² s, see Technical details for more information about terminal assignment
- terminal blocks, by Wieland
- for aluminium and copper conductors
- terminal marking, neutral
- cable entries via knockouts order ESM/AKM separately (see cable entry systems LES)
- with external fixing
- for normal environment and protected outdoor

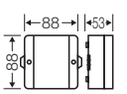
rated insulation voltage	U_i = 500 V a.c./d.c.
current carrying capacity	24 A
tightening torque for terminal	0.4 Nm



RD 9127

1.5-2.5 mm²

IP 65 | PS | RAL 7035 | 3 Wall 3 / 1



- 7 terminal blocks WKM 2.5/15
- per terminal 2 x 0,5-2.5 mm² f, 2 x 0,5-4 mm² sol or 2 x 1,5-2.5 mm² s, see Technical details for more information about terminal assignment
- terminal blocks, by Wieland
- for aluminium and copper conductors
- terminal marking, neutral
- cable entries via knockouts order ESM/AKM separately (see cable entry systems LES)
- with external fixing
- for normal environment and protected outdoor

rated insulation voltage	U_i = 500 V a.c./d.c.
current carrying capacity	24 A
tightening torque for terminal	0.4 Nm

DK Cable Junction Boxes

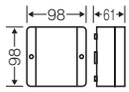
With terminal blocks for aluminium- and copper conductors
Cable entry via metric knockouts



RD 9045

1.5-4 mm²

IP 65 | PS | RAL 7035 | 4 Wall 4 (4 / 4 / 2)



- 5 terminal blocks WKM 4/15
- per terminal 2 x 0,5-4 mm² f, 2 x 0,5-6 mm² sol or 2 x 1.5-4 mm² s, see Technical details DK cable junction boxes for more information about terminal assignment
- terminal blocks, by Wieland
- for aluminium and copper conductors
- terminal marking, neutral
- cable entries via knockouts order ESM/AKM separately (see cable entry systems LES)
- for normal environment and protected outdoor

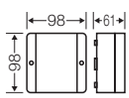
rated insulation voltage	U_i = 500 V a.c./d.c.
current carrying capacity	28 A
tightening torque for terminal	0.5 Nm



RD 9041

1.5-4 mm²

IP 65 | PS | RAL 7035 | 4 Wall 4 (4 / 4 / 2)



- 10 terminal blocks WKM 4/15
- per terminal 2 x 0,5-4 mm² f, 2 x 0,5-6 mm² sol or 2 x 1.5-4 mm² s, see Technical details DK cable junction boxes for more information about terminal assignment
- terminal blocks, by Wieland
- for aluminium and copper conductors
- terminal marking, neutral
- cable entries via knockouts order ESM/AKM separately (see cable entry systems LES)
- for normal environment and protected outdoor

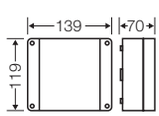
rated insulation voltage	U_i = 500 V a.c./d.c.
current carrying capacity	28 A
tightening torque for terminal	0.5 Nm



RK 9062

1.5-4 mm²

IP 65 | PS | RAL 7035 | 10 Wall 5 (6 / 10 / 10)



- 12 terminal blocks WK 4/U
- per terminal 2 x 0,5-4 mm² f, 2 x 0,5-6 mm² sol or 2 x 1.5-4 mm² s, see Technical details DK cable junction boxes for more information about terminal assignment
- terminal blocks, by Wieland
- for aluminium and copper conductors
- terminal marking, neutral
- cable entries via knockouts order ESM/AKM separately (see cable entry systems LES)
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	41 A
tightening torque for terminal	0.5 Nm

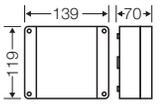
With terminal blocks for aluminium- and copper conductors
Cable entry via metric knockouts



RK 9064

1.5-4 mm²





- 14 terminal blocks WK 4/U
- per terminal 2 x 0,5-4 mm² f, 2 x 0,5-6 mm² sol or 2 x 1.5-4 mm² s, see Technical details DK cable junction boxes for more information about terminal assignment
- terminal blocks, by Wieland
- for aluminium and copper conductors
- terminal marking, neutral
- Cable entries via knockouts order ESM/AKM separately (see cable entry systems LES)
- for normal environment and protected outdoor

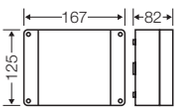
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	41 A
tightening torque for terminal	0.5 Nm



RK 9109

1.5-4 mm²





- 19 terminal blocks WK 4/U
- per terminal 2 x 0,5-4 mm² f, 2 x 0,5-6 mm² sol or 2 x 1.5-4 mm² s, see Technical details DK cable junction boxes for more information about terminal assignment
- terminal blocks, by Wieland
- for aluminium and copper conductors
- terminal marking, neutral
- cable entries via knockouts order ESM/AKM separately (see cable entry systems LES)
- for normal environment and protected outdoor

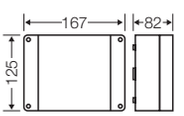
rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	41 A
tightening torque for terminal	0.5 Nm



RK 9104

1.5-4 mm²





- 24 terminal blocks WK 4/U
- per terminal 2 x 0,5-4 mm² f, 2 x 0,5-6 mm² sol or 2 x 1.5-4 mm² s, see Technical details DK cable junction boxes for more information about terminal assignment
- terminal blocks, by Wieland
- for aluminium and copper conductors
- terminal marking, neutral
- cable entries via knockouts order ESM/AKM separately (see cable entry systems LES)
- for normal environment and protected outdoor

rated insulation voltage	U_i = 690 V a.c./d.c.
current carrying capacity	41 A
tightening torque for terminal	0.5 Nm



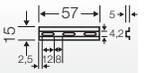
DIN rails	128
Cable retention	129
Terminal sets	130 - 132
External brackets	133
Removable grommets/adapter for retrofitting	133
Labelling system for circuit description	133
Facility for sealing	134
Flanges	135 -136



TSD 02

DIN rail

- for cable junction boxes D x020, D x120
- max. installation depth 32 mm, top hat profile 15 mm
- for the installation of terminal blocks
- with fixing screws

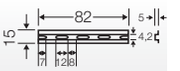




TSD 04

DIN rail

- for cable junction boxes D x040
- max. installation depth: 40 mm, top hat profile 15 mm
- for the installation of terminal blocks
- with fixing screws
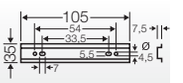




TSK 06

DIN rail

- for cable junction boxes K x060
- max. installation depth: 44,5 mm, top hat profile 35 mm
- for the installation of terminal blocks
- with fixing screws
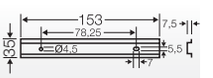




TSK 10

DIN rail

- for cable junction boxes K x100
- max. installation depth: 56,5 mm, top hat profile 35 mm
- for the installation of terminal blocks
- with fixing screws

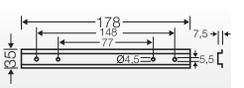




TSK 25

DIN rail

- for cable junction boxes K x250, K x350
- max. installation depth: 71.5 mm, top hat profile 35 mm
- for the installation of terminal blocks
- with fixing screws
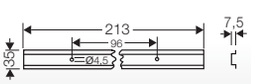




TSK 35

DIN rail

- for cable junction boxes K x350
- max. installation depth: 80,5 mm, top hat profile 35 mm
- for the installation of terminal blocks
- with fixing screws

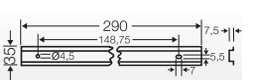




TSK 50

DIN rail

- for cable junction boxes K x500
- max. installation depth: 80,5 mm, top hat profile 35 mm
- for the installation of terminal blocks
- with fixing screws





KHR 01

Cable retention
for cable diameter 6.5 - 14 mm

- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 6,5 - 10 mm
- 30 pieces for cable diameter 10 - 14 mm



KHR 02

Cable retention
for cable diameter 10 - 16 mm

- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 10 - 14 mm
- 30 pieces for cable diameter 13 - 16 mm



DKL 04

Rated connecting capacity: 1.5-6 mm², Cu



- for insertion in cable junction boxes
- 5-pole per pole 6 x 1.5 mm² sol, 4 x 2.5 mm² sol, 3 x 4 mm² sol, 2 x 6 mm² sol
- for cable junction boxes D 8020, D 8120, D 8040, D 9020, D 9120, D 9040, D 9220, DP 9020, DP 9220, DE 9320, DE 9321, DE 9340, DE 9341
- complete with fixing elements

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	11 mm
tightening torque for terminal	1.2 Nm



KKL 06

Rated connecting capacity: 2.5-10 mm², Cu



- for insertion in cable junction boxes
- 5-pole per pole 4 x 2.5 mm² sol, 4 x 4 mm² sol, 3 x 6 mm² sol, 2 x 10 mm² sol
- for cable junction boxes K 8060, K 9060
- complete with fixing elements

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	11 mm
tightening torque for terminal	1.5 Nm



KLS 10

Rated connecting capacity: 2.5-16 mm², Cu



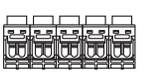
- for insertion in cable junction boxes
- current carrying capacity: 63 A
- 5-pole per pole 6 x 2.5 mm² sol, 4 x 4 mm² sol, 4 x 6 mm² sol, 4 x 10 mm² sol, 2 x 16 mm² s
- for cable junction boxes K 8100, K 9100
- complete with fixing elements

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	11 mm
tightening torque for terminal	2.0 Nm



KLS 25

Rated connecting capacity: 6-35 mm², Cu



- for insertion in cable junction boxes
- current carrying capacity: 102 A
- 5-pole per pole 6 x 6 mm² sol, 6 x 10 mm² sol/ f*, 4 x 16 mm² s/ f*, 4 x 25 mm² s/ f*, 2 x 35 mm² s/ f*
  f* = with gas-tight end ferrule
- for cable junction boxes K 8250, K 8500, K 9250, K 9500
- complete with fixing elements

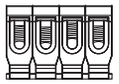
rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	16 mm
tightening torque for terminal	3.0 Nm



KLS 50

Rated connecting capacity: 16-50 mm², Cu

- for insertion in cable junction boxes
- current carrying capacity: 150 A
- 4-pole per polel 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s
- for cable junction boxes K 9350, K 9500, K 8350, K 8500
- complete with fixing elements



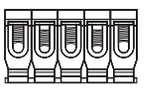
rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	20 mm
tightening torque for terminal	12.0 Nm



KLS 51

Rated connecting capacity: 16-50 mm², Cu

- for insertion in cable junction boxes
- current carrying capacity: 150 A
- 5-pole per pole 6 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s
- for cable junction boxes K 9350, K 9500, K 8350, K 8500
- complete with fixing elements



rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	20 mm
tightening torque for terminal	12.0 Nm



KLS 54

Rated connecting capacity: 16-70 mm², Cu

- for insertion in cable junction boxes
- current carrying capacity: 216 A
- 4-pole per pole 4 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s, 4 x 70 mm² s
- for cable junction boxes K 8500, K 9500
- complete with fixing elements



rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	16 mm
tightening torque for terminal	10.0 Nm



KLS 55

Rated connecting capacity: 16-70 mm², Cu

- for insertion in cable junction boxes
- current carrying capacity: 216 A
- 5-pole per pole 4 x 16 mm² s, 4 x 25 mm² s, 4 x 35 mm² s, 4 x 50 mm² s, 4 x 70 mm² s
- complete with fixing elements



rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	16 mm
tightening torque for terminal	10.0 Nm



FC L 45

Rated connecting capacity: 1.5-4 mm², Cu

- FIXCONNECT® terminal set consisting of 5 terminals and 2 DIN rails
- for insertion in cable junction boxes
- current carrying capacity: 32 A
- 5-pole per pole 4 x 1 x 1.5-4 mm² r/f
- for cable junction boxes K 8060, K 9060, KF 4060, KF 5060, KF 8060, KF 9060, KD 5060, KD 4060, K 8100, K 9100, KF 4100, KF 5100, KF 8100, KF 9100, KD 5100, KD 4100
- complete with fixing elements

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	17 mm



FC L 04

FIXCONNECT® plug-in terminal 1.5-4 mm², Cu

- as a connecting terminal
- for installation on DIN rails, 15 mm top hat profile
- current carrying capacity: 32 A
- 1-pole 4 x 1.5-4 mm² r/f

rated insulation voltage	U_i = 690 V a.c./d.c.
dismantling length	17 mm



DK AL 2

External brackets 2 pieces

Stain-less steel

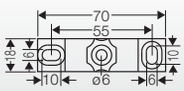
- for external wall fixing of cable junction boxes type D and K and empty box KF PV
- slot for wall mounting for screws up to 4.5 mm diameter
- Material: stainless steel V2A



DE MB 10

Assembly bracket

- external brackets 10 units
- material: thermoplastics
- for quick installation of cable junction boxes DE 922. and DN 20..





DPS 02

Removable grommet

IP 54

- degree of protection: IP 54 sealing range Ø 10-13.5 mm
- for retrofitting
- for cable junction boxes DP 9020, DP 9220, DP 9025, DP 9221, DP 9222, DP 9026, DPC 9225



EKA 20

Removable trunking adapter

IP 54

- degree of protection: IP 54 sealing range Ø 10-13.5 mm
- for mini trunking up to 20 x 20 mm
- for cable junction boxes DP 9020, DP 9220, DP 9025, DP 9221, DP 9222, DP 9026, DPC 9225



ERA 20

Removable conduit adapter

IP 54

- degree of protection: IP 54 sealing range Ø 10-13.5 mm
- for wiring conduits M 20
- for cable junction boxes DP 9020, DP 9220, DP 9025, DP 9221, DP 9222, DP 9026, DPC 9225



DK BS 5

Labelling system for circuit description

PC RAL 7035

- set with 5 pieces
- for cable junction boxes from 2.5 to 50 mm² and KF PV boxes..., can be inserted into cover fixing ducts.
- for attaching of labelling strips or marking with felt tip pen
- inscribable surface of 45 x 30 mm
- label template on the Internet at www.hensel-electric.de - down-load area
- cannot be used in cable junction boxes 2.5 to 4 mm² and KF PV 01 / KF PV 02 boxes with sealing facility



PLS 06

Facility for sealing

- for retrofitting, without sealing wire and without seal
- for cable junction boxes 2.5 mm²: D 9x2x, D 8x2x, DE 9x2x, DP 9x2x, DPC 9225, RD 9x2x
- for cable junction boxes 4 mm²: D 9x4x, D 8x4x, DE 9x4x, RD 9x4x
- for cable junction boxes 6 mm²: K 9x6x, K 8x6x, RD 9x6x, KC 9045
- the following cable junction boxes and main line junction boxes are fitted with sealable covers as standard: K 7004, K 7005, K 7042, K 7052, K 1204, K 1205, K 2404, K 2405, K 9259, K 9508, K 9509.



PLS 50

Facility for sealing

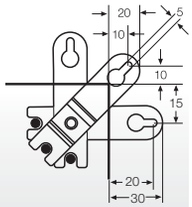
- for retrofitting, without sealing wire and without seal
- for cable junction boxes 10 mm²: K 91xx, K 81xx
- for cable junction boxes 25 mm²: K 925x, K 825x, RK 91xx, KC 9255
- for cable junction boxes 35/50 mm²: K 93xx, K 95xx, K 83xx, K 85xx, KC 9355
- the following cable junction boxes and main line junction boxes are fitted with sealable covers as standard: K 7004, K 7005, K 7042, K 7052, K 1204, K 1205, K 2404, K 2405, K 9259, K 9508, K 9509.



Mi AL 40

4 stainless steel external brackets

- for external fixing of enclosures

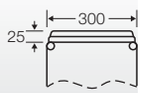




Mi FM 40

Flange
knockouts: 2 x M 25/32, 5 x M 32/40

- box wall 300 mm
- with fixing wedges and seal

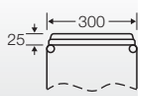




Mi FM 50

Flange
knockouts: 2 x M 20, 4 x M 32/40/50

- box wall 300 mm
- with fixing wedges and seal

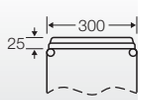




Mi FM 60

Flange
knockouts: 3 x M 40/50/63

- box wall 300 mm
- with fixing wedges and seal

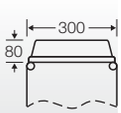




Mi FM 63

Flange with cable arrangement space
knockouts: 3 x M 40/50/63

- box wall 300 mm
- with fixing wedges and seal



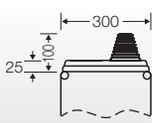


Mi FP 70

Flange
sealing range: 1 x Ø 30-72 mm

- box wall 300 mm
- with fixing wedges and seal

IP 65



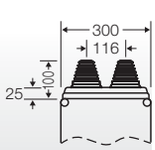


Mi FP 72

Flange
sealing range: 2 x each Ø 30-72 mm

- box wall 300 mm
- with fixing wedges and seal

IP 65

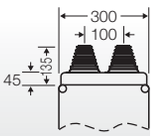




Mi FP 82

Cable insert
sealing range: 2 x each Ø 30-72 mm

- box wall 300 mm
- divisible for cable insertion from the front
- degree of protection IP 54 only with additional strain and pressure relief (e.g. Mi ZE 62)





KST 82

Stepped grommet
sealing range: Ø 30-72 mm

TPE RAL 7035

- for retrofitting of cable insertion Mi FP 82
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25° to + 35° C



Mi ZE 62

Cable strain relief
for 2 cables with max. 60 mm external diameter

- with fixing rail 284 mm long
- to be used only in connection with cable insertion Mi FP 82



Mi SA 2

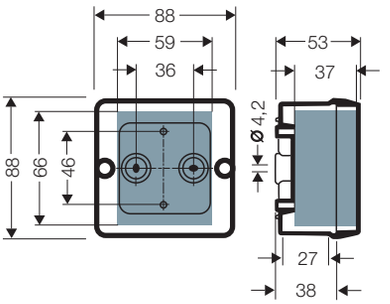
Dust protection cover

- for box sizes 1 to 4
- for 2 lid fittings

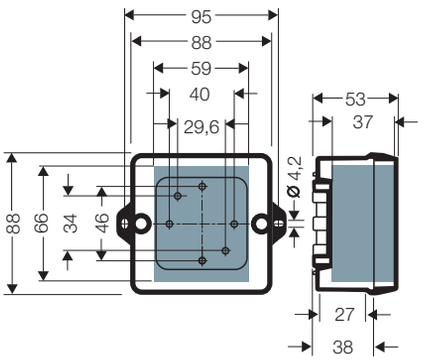


Dimensions in mm	138 - 143
Terminals	144 - 147
Operating and ambient conditions	148 - 150
Standards and regulations	151
FK cable junction boxes with intrinsic fire resistance	152

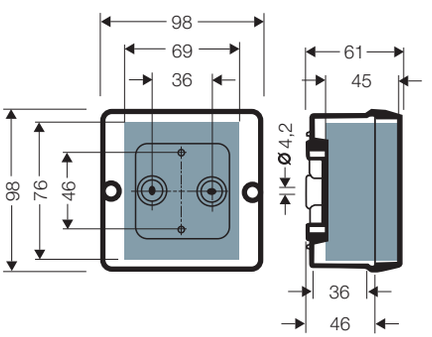
D 8020
D 9020
D 9220
KF 7020



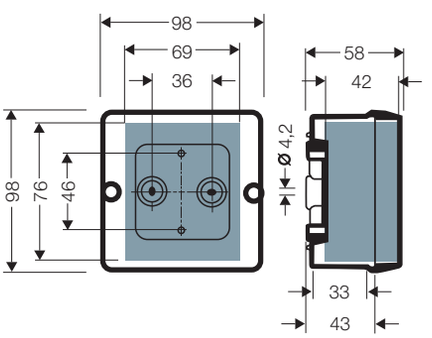
D 8120
D 9120



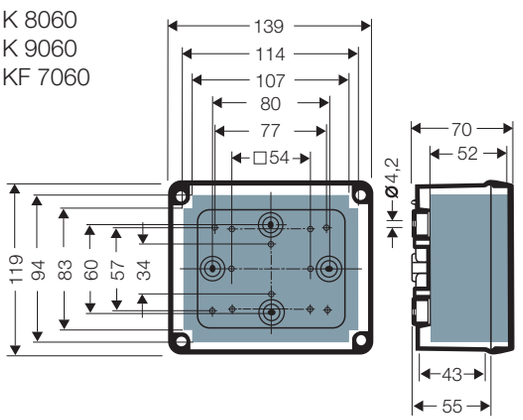
D 9040
D 9240



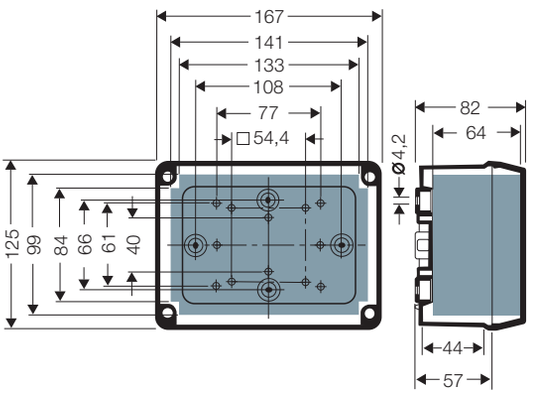
D 8040
KF 7040



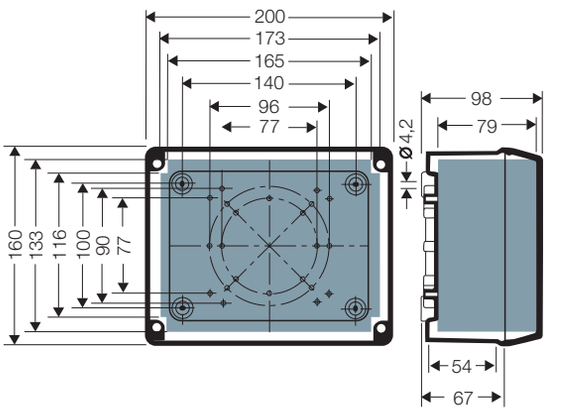
K 8060
K 9060
KF 7060



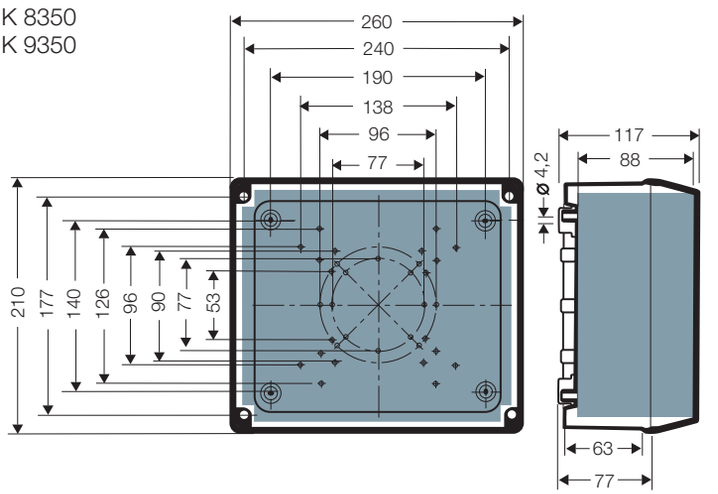
K 8100
K 9100
KF 7100



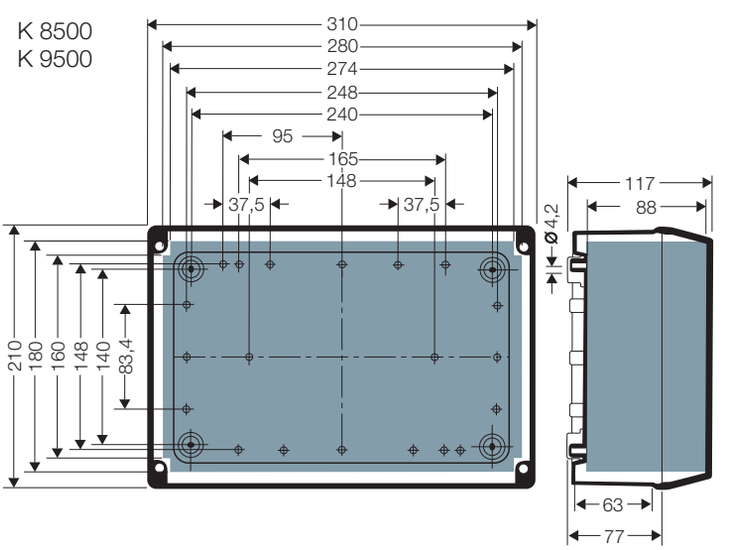
K 8250
K 9250
KF 7250



K 8350
K 9350

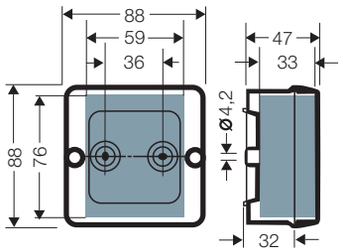


K 8500
K 9500

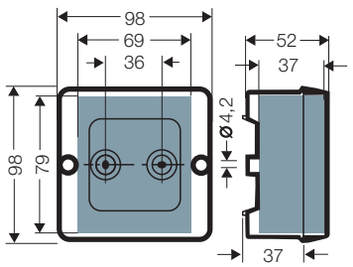


= usable installation space
with mounted cable glands

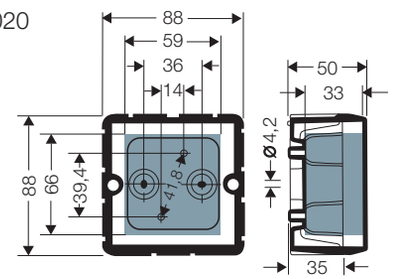
DE 9320
DE 9321



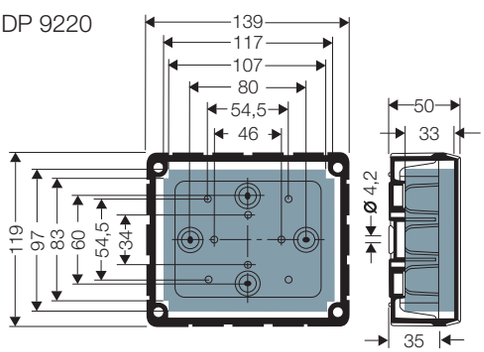
DE 9340
DE 9341



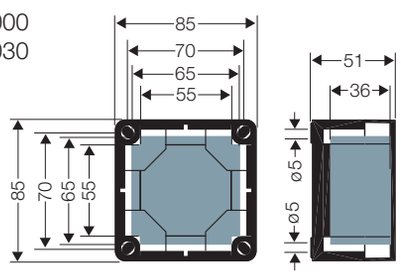
DP 9020



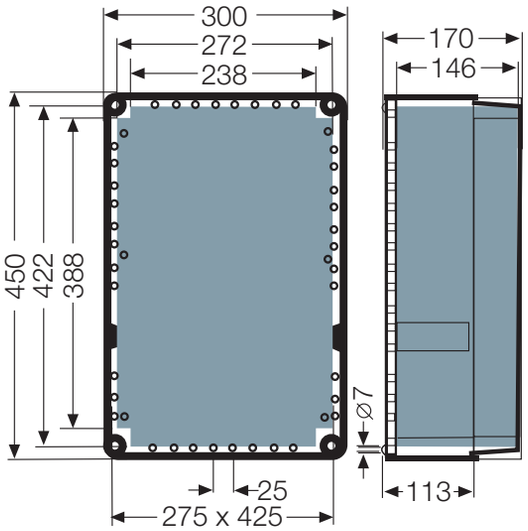
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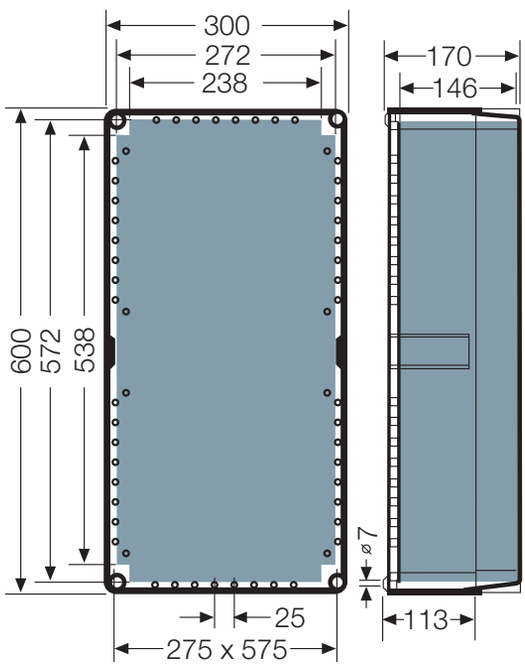
DN 2000
DN 2030



K 7055
K 7004
K 7005
K 7042
K 7052
K 9951
K 1204
K 1205

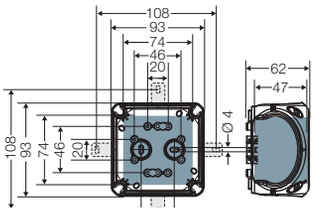


K 2401
K 2404
K 2405

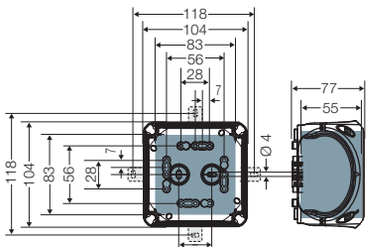


= usabel installation space with mounted cable glands

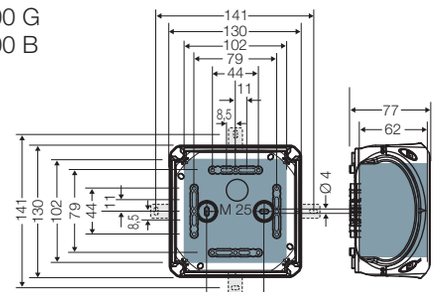
KF 0200 G
KF 0200 B



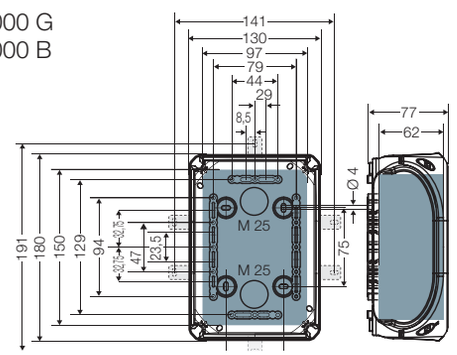
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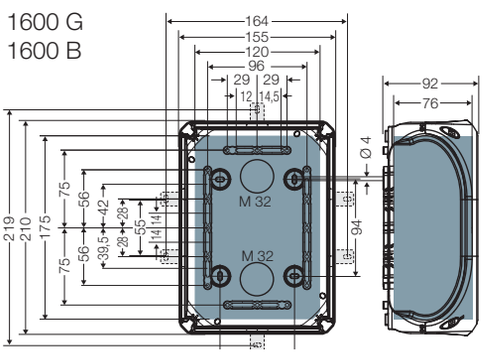
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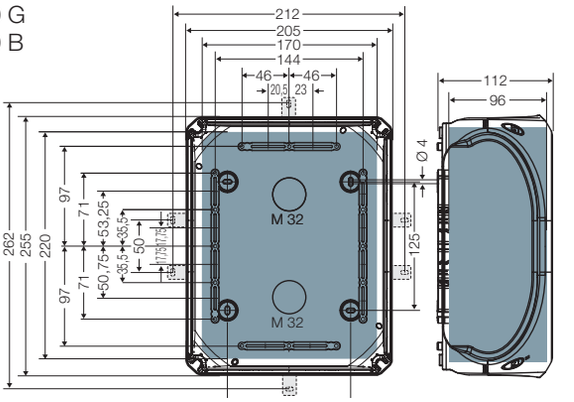
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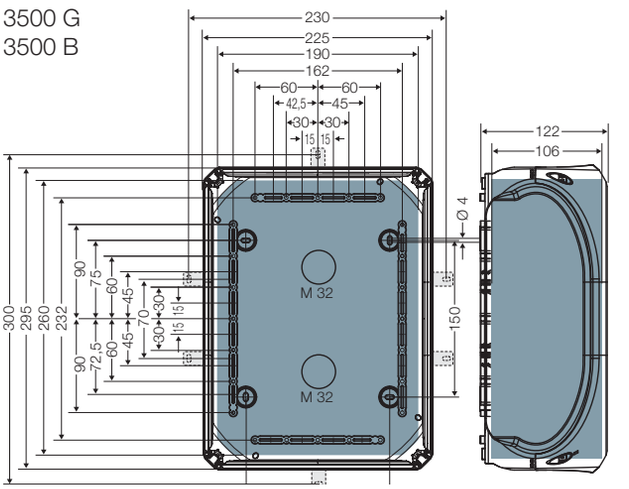
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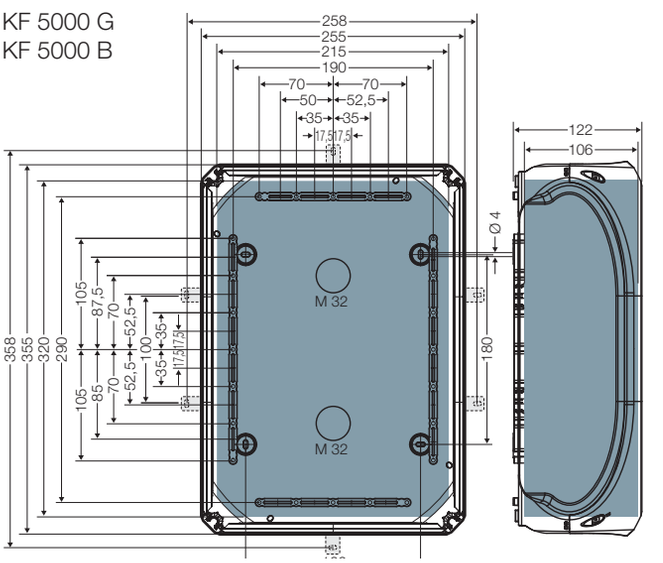
KF 2500 G
KF 2500 B



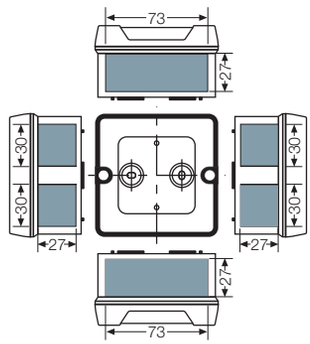
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KF 3500 B



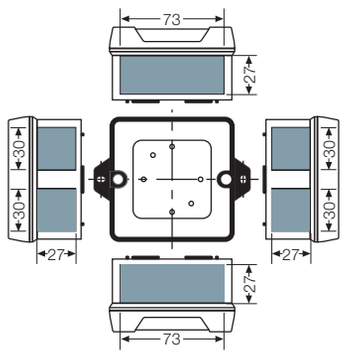
KF 5000 G
KF 5000 B



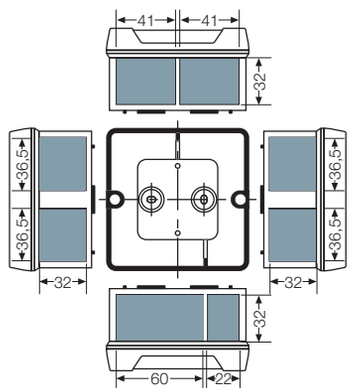
D 8020



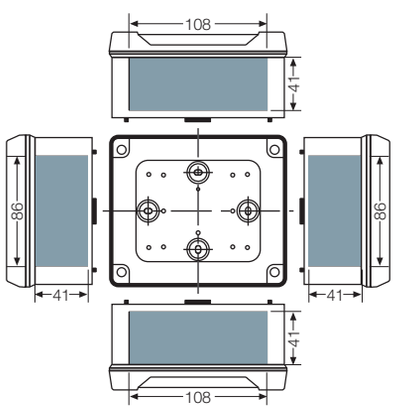
D 8120



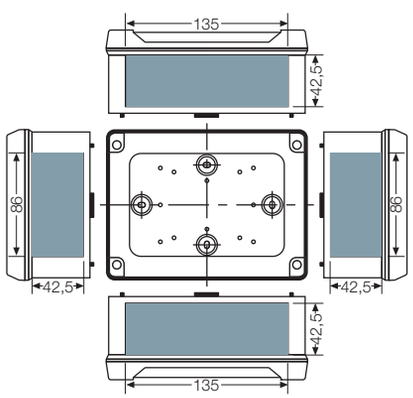
D 8040



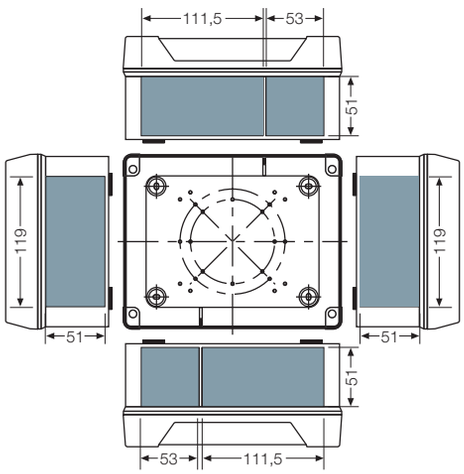
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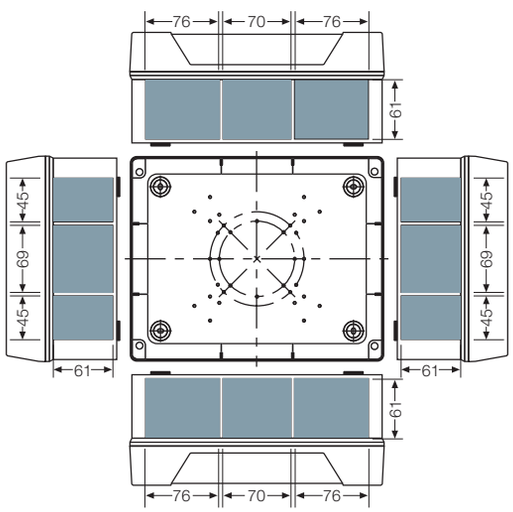
K 8100



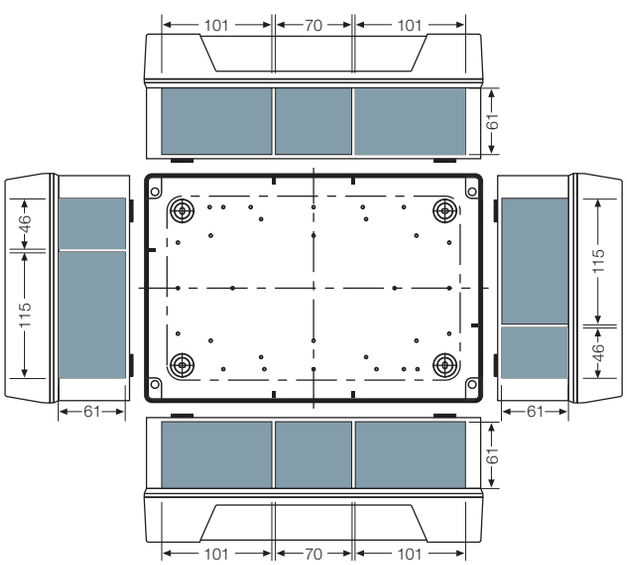
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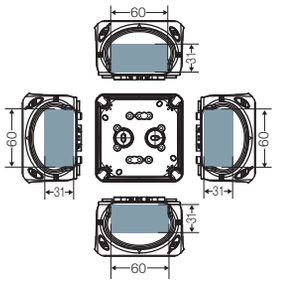


K 8500

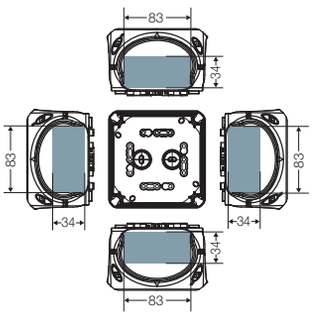


= usable installation area in box walls

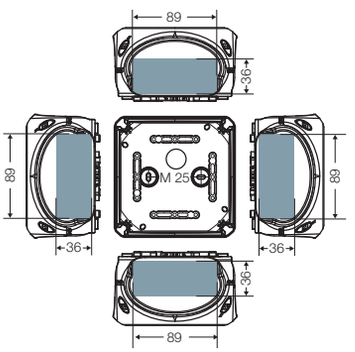
KF 0200 H
KF 0200 C



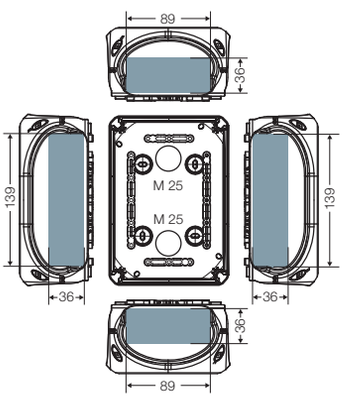
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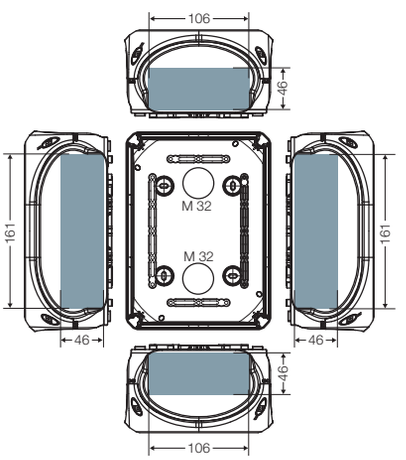
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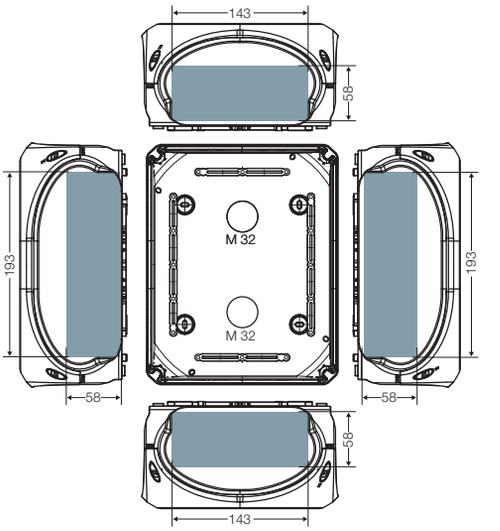
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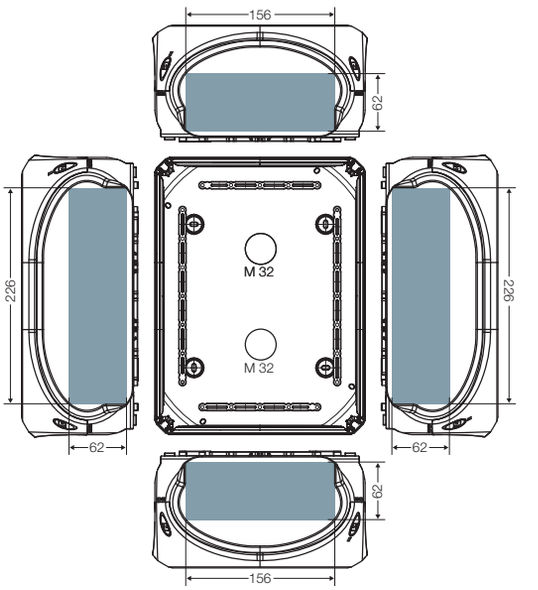
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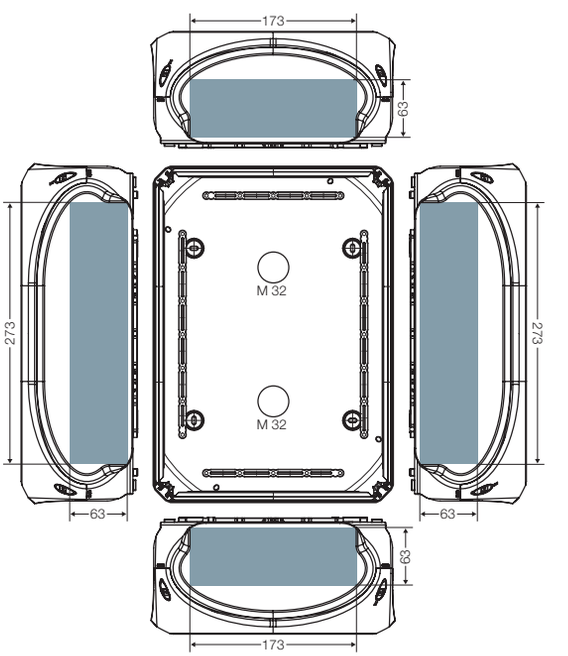
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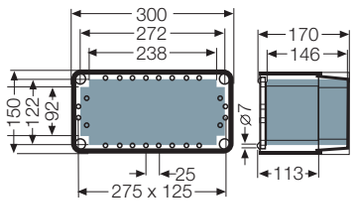
KF 3500 H
KF 3500 C



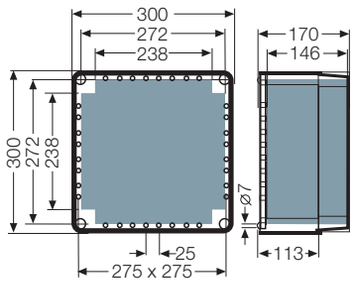
KF 5000 H
KF 5000 C



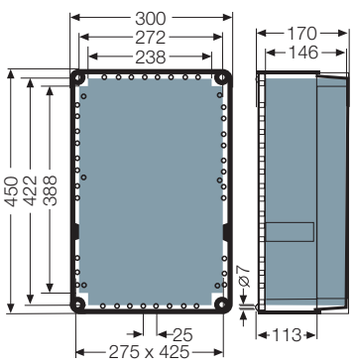
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K 0101



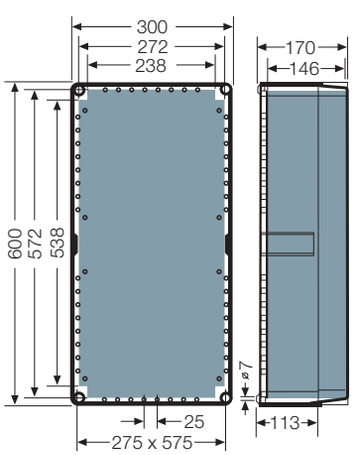
K 0200
K 0201



K 0300
K 0301

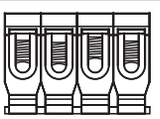
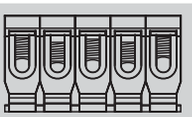
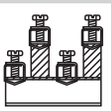
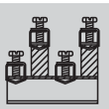
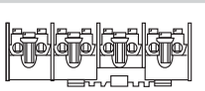
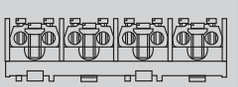


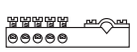
K 0400
K 0401



= usable installation space

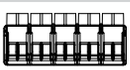
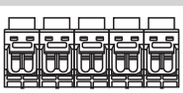
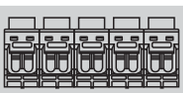
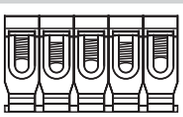
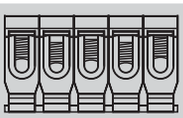
Connecting terminals for copper conductors (Cu)
Hint: The connection of different types of conductors and/or different cross-sections at one clamping unit is not permitted.
f[1] = flexible with end ferrule

Type of terminal	Fixed in cable junction boxes	Clamping units per pole	Rated connecting capacity mm² and types of conductors	Conductors to be connected per pole	Tightening torque	Current carrying capacity	Rated cross section of terminal
 **DKL 04**	**D 9025, D 9125, D 9225, D 9245, D 9045, DP 9025 DP 9221, DP 9222 DE 9325, DE 9326 DE 9345, DE 9346 DN 2035,**	1	6 sol 4 sol 2.5 sol 1.5 sol	1-2 1-3 1-4 1-6	1.2 Nm	–	**6 mm²**
 **KKL 06**	**K 9065**	1	10 sol 6 sol 4 sol 2.5 sol	1-2 1-3 1-4 1-4	1.5 Nm	–	**10 mm²**
 **KLS 10**	**K 9105, K 8105**	2	16 s 10 sol 6 sol 4 sol 2.5 sol, f[1]	1-2 1-4 1-4 1-4 2-6	2 Nm	63 A	**16 mm²**
 **KLS 25**	**K 9255, K 8255, K 9502**	2	35 s, f[1] 25 s, f[1] 16 s, f[1] 10 sol, f[1] 6 sol	1-2 1-4 1-4 1-6 1-6	3 Nm	102 A	**35 mm²**
 **KLS 50**	**K 9504**	2	50 s 35 s 25 s 16 s	1-4 1-4 1-4 1-6	12 Nm	150 A	**50 mm²**
 **KLS 51**	**K 7055, K 9355, K 9505,**	2	50 s 35 s 25 s 16 s	1-4 1-4 1-4 1-6	12 Nm	150 A	**50 mm²**
 **4 x KLS 54**	**K 7004**	4	70 s 50 s 35 s 25 s 16 s	1-4 1-4 1-4 1-4 1-4	10 Nm	216 A	**70 mm²**
 **5 x KLS 55**	**K 7005**	4	70 s 50 s 35 s 25 s 16 s	1-4 1-4 1-4 1-4 1-4	10 Nm	216 A	**70 mm²**
	**K 9259** **K 9508**	incoming 2 outgoing 4	25 r 16 r	1-2 1-4	3 Nm	80 A	**25 mm²**
	**K 9509** **K 9508**	incoming 2 outgoing 4	35 r 35 r	1-2 1-4	4 Nm 3 Nm	100 A	**35 mm²**

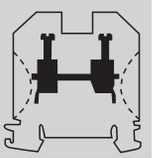


Terminal for equipotential bonding:
DP 9026 for 1 continued conductor 4-25 mm² and 5 conductors 4-10 mm² (16 mm² sol)

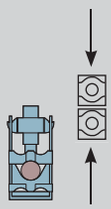
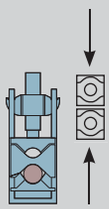
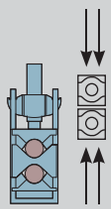
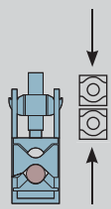
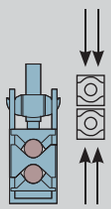
Connecting terminals for copper conductors (Cu)
Hint: The connection of different types of conductors and/or different cross-sections at one clamping unit is not permitted.
f[1] = flexible with end ferrule

Type of terminal	Fixed in cable junction boxes	Clamping units per pole	Rated connecting capacity mm² and types of conductors	Conductors to be connected per pole	Tightening torque	Current carrying capacity	Rated cross section of terminal
 **DK KL 02**	**KF 0202 G** **KF 0202 B** **KF 0402 G** **KF 0402 B** **WP 0202 G** **WP 0202 B** **WP 0402 G** **WP 0402 B**	2	4 sol/f 2,5 sol/f 1.5 sol/f 0.75 f	1-2 1-4 1-6 1-8	0.5 Nm	20 A	**4 mm²**
 **DK KL 04**	**KF 0404 G** **KF 0404 B** **KF 0604 G** **KF 0604 B** **WP 0404 G** **WP 0404 B** **WP 0604 G** **WP 0604 B**	2	6 sol/f 4 sol/f 2,5 sol/f 1.5 sol/f	1-2 1-4 1-6 1-8	0.7 Nm	32 A	**6 mm²**
 **DK KL 06**	**KF 0606 G** **KF 0606 B** **KF 1006 G** **KF 1006 B** **WP 0606 G** **WP 0606 B**	2	10 sol/f 6 sol/f 4 sol/f 2,5 sol/f 1.5 sol/f	1-2 1-4 1-4 1-4 1-6	1.5 Nm	40 A	**10 mm²**
 **DK KS 10**	**KF 1010 G** **KF 1010 B** **KF 1610 G** **KF 1610 B** **WP 1010 G** **WP 1010 B**	2	16 s 10 sol 6 sol 4 sol 2,5 sol, f[1]	1-2 1-4 1-4 1-4 2-6	2 Nm	63 A	**16 mm²**
 **DK KS 16**	**KF 1616 G** **KF 1616 B**	2	35 s, f[1] 25 s, f[1] 16 s, f[1] 10 sol, f[1] 6 sol	1-2 1-4 1-4 1-6 1-6	3 Nm	102 A	**35 mm²**
 **DK KS 25**	**KF 2525 G** **KF 2525 B**	2	35 s, f[1] 25 s, f[1] 16 s, f[1] 10 sol, f[1] 6 sol	1-2 1-4 1-4 1-6 1-6	3 Nm	102 A	**35 mm²**
 **DK KS 35**	**KF 3535 G** **KF 3535 B**	2	50 s 35 s 25 s 16 s	1-4 1-4 1-4 1-6	12 Nm	150 A	**50 mm²**
 **DK KS 50**	**KF 5050 G** **KF 5050 B**	2	50 s 35 s 25 s 16 s	1-4 1-4 1-4 1-6	12 Nm	150 A	**50 mm²**

Terminal blocks for copper- (Cu) and aluminium conductors (Alu)

Fixed in cable junction boxes	Type	Clamping units per pole	corresponding cross-section mm²	Conductors to be connected per pole	Cross-sections and types of conductors f = flexible wire f¹ = flexible wire with end ferrule sol = solid wire s = stranded wire r = rigid (solid and stranded)	Tightening torque	Current carrying capacity	Terminal design/ nominal cross-section of terminal	International approvals of terminal blocks CH/SEV · N/Nemko · DK/Demko · NL/KEMA · SF/SETI · Canada/CSA · USA/UL
Manufacturer Wieland:									
RD 9123, RD 9125, RD 9127	WKM 2.5/15 rated voltage AC/DC 500 V	2	2,5 1.5	2	f/f¹ = 0.5-2,5 sol = 0.5-4 s = 1.5-2.5	0.4 Nm	24 A		● ● ● ●
RD 9045, RD 9041	WKM 4/15 rated voltage AC/DC 500 V	2	4 2.5 1.5	2	f/f¹ = 0.5-4 sol = 0.5-6 s = 1.5-4	0.5 Nm	32 A		● ● ●
RK 9062, RK 9064 RK 9109, RK 9104	WK 4/U rated voltage AC/DC 800 V	2	4 2.5 1.5	2	f/f¹ = 0.5-4 sol = 0.5-6 s = 1.5-4	0.5 Nm	41 A		● ● ● ●
Manufacturer Weidmüller:									
D 9041	AKZ 2.5 rated voltage AC/DC 250 V	4	2.5 1.5	4	f/f¹ sol = 0.5-2.5 s = 1.5-2.5	0.5 Nm	20 A		● ● ● ● ●
K 9061	AKZ 4 rated voltage AC/DC 400 V	4	4 2.5 1.5	4	f/sol = 0.5-4 s = 1.5-4 f¹ = 0.5-2.5	0.6 Nm	20 A		● ● ● ● ● ●
K 9351	WDU 16 N rated voltage AC/DC 400 V	4	16 10 6	4	f¹/sol = 1.5-16 f/s = 1.5-25	3.0 Nm	76 A		● ● ● ● ● ●
K 7051	-	4	2.5-50	4	r = 2.5-50	10.0 Nm	Cu 150 A Alu 120 A		
KF 9251 KF 9501	-	2	1.5-50	2	r = 1.5-50	1.5 Nm to 12 Nm	Cu/Alu 150 A		
K 9951	-	4	6-95	4	r = 6-95	12 Nm to 22 Nm	Cu/Alu 490 A		
K 2401	-	4	35-240	4	r = 35-240	26 Nm to 55 Nm	Cu/Alu 850 A		

Terminals

	K 7042 / K 7052	K 1204 / K 1205		K 2404 / K 2405	
Rated connecting capacity	95 mm²	150 mm²		240 mm²	
Current carrying capacity	160 A	250 A		400 A	
Tightening torque	20 Nm	20 Nm		40 Nm	
Clamping units per pole	2	2	4	2	4
					
Conductor cross section Cu/Al[1] sol (round)	10-50	16-50	16-50	25-50	25-50
Conductor cross section Cu/Al[1] s (round), f (flexible)	16-95	16-150	16-70	25-240	25-120
Conductor cross section Cu/Al[1] sol (sector)	50-95	50-150	50-70	50-185	50-120
Conductor cross section Cu s (sector)	35-95	35-150	35-70	35-240	35-120
Conductor cross section Alu[1] s (sector)	35-70	50-120	35-50	95-185	50-95

1) Before connecting, aluminum conductors must be pre-treated according to the appropriate technical recommendations. The connections must be checked at regular intervals and maintained after 6 months at the latest.

FIXCONNECT® technology

Type	Clamping units per pole	Rated connecting capacity per types of conductors		Current carrying capacity
		r (rigid)	f (flexible)	
DPC 9225	4	1.5 - 4 mm²	1.5 - 4 mm² *)	32 A
KC 9045	4	1.5 - 4 mm²	1.5 - 4 mm² *)	32 A
KC 9255	4	2.5 - 10 mm²	2.5 - 10 mm²	57 A
KC 9355	4	2.5 - 16 mm²	2.5 - 16 mm²	76 A

*) Without ferrule; clamping unit needs to be opened with a screwdriver when conductor is inserted.

	Boxes with terminals		Removable grommets	Boxes with terminals
	D ..., DP ..., DPC ..., DE ..., KC ..., K ..., RD ..., RK ..., DN ...	**K 7055 K 7004/5 K 9951 K 1204/5 K 2404/5 K 2401 Mi FM ..**	**EKA 20, ERA 20, DPS 02**	**KF .... G KF .... B**
Application area	Suitable for indoor installation and outdoor installation, protected against weather influences			Suitable for for **outdoor installation** (harsh environment and/or outdoor). To reduce the formation and accumulation of condensed water see technical information.
Resistant to occasional cleaning procedures	**Resistant to occasional cleaning procedures (direct jet)** max. with high-pressure cleaner without additives water pressure: max. 100 bar, water temperature: max. 80 °C, distance ≥ 0.15 m in accordance with the requirements IP 69K **box and cable entries at least IP 65**			
Ambient temperature - Average value over 24 hours - Maximum value - Minimum value	 + 35 °C + 40 °C – 25 °C	 + 35 °C + 40 °C – 25 °C	 + 35 °C + 40 °C – 25 °C	 + 55 °C + 70 °C – 25 °C
Relative humidity - short-time	50% at 40 °C 100% at 25 °C	50% at 40 °C 100% at 25 °C	– –	50% at 40 °C 100% at 25 °C
Fire protection in the event of internal faults	Demands placed on electrical devices from standards and laws: Minimum requirements - Glow wire test in accordance with IEC 60695-2-11: - 650 °C for boxes and cable glands - 850 °C for conducting components			
Burning behaviour - Glow wire test IEC 60695-2-11 - UL Subject 94	 750 °C V-2 flame-retardant self-extinguishing	 960 °C V-2 flame-retardant self-extinguishing	 750 °C – flame-retardant self-extinguishing	 960 °C V-0 flame-retardant self-extinguishing
Degree of protection against mechanical load	IK07 (2 Joule)	IK08 (5 Joule)	–	IK09 (10 Joule)
Toxic behaviour	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free
	”Halogen-free” in accordance with IEC 60754-2 ”Common test methods for cables - Determination of the amount of halogen acid gas”. **For material properties see technical data.**			

	Empty boxes	Removable grommets	Empty boxes	
	D ..., DP ..., DE ..., K 9..., K 8..., DN ...	**EKA 20, ERA 20, DPS 02**	**KF 7...**	**KF .... G, KF .... B KF .... H, KF .... C**
Application area	Suitable for indoor installation and outdoor installation, protected against weather influences		Suitable for **outdoor installation** (harsh environment and/or outdoor). To reduce the formation and accumulation of condensed water see technical information.	
Resistant to occasional cleaning procedures	**Resistant to occasional cleaning procedures (direct jet)** max. with high-pressure cleaner without additives water pressure: max. 100 bar, water temperature: max. 80 °C, distance ≥ 0.15 m in accordance with the requirements IP 69K **box and cable entries at least IP 65**			
Ambient temperature				
- Average value over 24 hours	–	+ 35 °C	+ 55 °C	+ 55 °C
- Maximum value	+ 40 °C	+ 60 °C	+ 70 °C	+ 70 °C
- Minimum value	– 25 °C	– 25 °C	– 25 °C	– 25 °C
Fire protection in the event of internal faults	Demands placed on electrical devices from standards and laws: Minimum requirements - Glow wire test in accordance with IEC 60695-2-11: - 650 °C for boxes and cable glands - 850 °C for conducting components			
Burning behaviour				
- Glow wire test IEC 60695-2-11	750 °C	750 °C	960 °C	960 °C
- UL Subject 94	V-2 flame-retardant self-extinguishing	– flame-retardant self-extinguishing	V-0 flame-retardant self-extinguishing	V-0 flame-retardant self-extinguishing
Degree of protection against mechanical load	IK07 (2 Joule)	–	IK08 (5 Joule)	IK09 (10 Joule)
Toxic behaviour	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free

”Halogen-free” in accordance with IEC 60754-2 ”Common test methods for cables - Determination of the amount of halogen acid gas”.

For material properties see technical data.

	Boxes with terminals
	WP .... G, WP ... B
Application area	Suitable for **outdoor installation** (harsh environment and/or outdoor). For application in ambient conditions with formation of condensation and ingress of water as well as for installation in the ground without traffic loads in accordance with DIN VDE V 0606-22-100.
Resistant to occasional cleaning procedures	**Resistant to cleaning procedures (direct jet)** **max. with high-pressure cleaner without additives, water temperature: max. 80° C**
Ambient temperature - Average value over 24 hours - Maximum value - Minimum value	 + 55 °C + 70 °C – 25 °C
Relative humidity	100%
Brennverhalten - Glühdrahtprüfung nach IEC 60695-2-11 - UL Subject 94	 960° C V-0 flame-retardant self-extinguishing
Degree of protection against mechanical load	IK08 (5 Joule)
Toxic behaviour	halogen-free silicone-free

Hensel cable junction boxes and cable entry systems comply with the following standards and requirements:

1. Cable junction boxes

- IEC 60670 - 22
Particular requirements for connecting boxes and enclosures
Part 22: Particular requirements for connecting boxes

- IEC 60998
Connecting devices for low voltage circuits for household and similar purposes
Part 2-1: Particular requirements for connecting devices as separate entities with screw-type terminals
Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type terminals

- IEC 60999
EN 60999
Connecting devices
Safety requirements for screw-type and screwless-type clamping units for electrical copper conductors

- DIN VDE V 0606-22-100 (German standard)
Enclosures for encapsulation with connection terminals (GVV)

2. Cable junction boxes with terminal blocks

- IEC 60670-22
Particular requirements for connecting boxes and enclosures

- EN 60947-7-1
Low-voltage switchgear and controlgear,
Part 7: Auxiliary equipment;
Section 1 - Terminal blocks for copper conductors

3. Conduit entries (ERA 20)

- EN 60423
Conduits for electrical pursposes - Outside diameters of conduits for electrical installations and threads for conduits and fittings

4. Degrees of protection

- IEC 60529
DIN VDE 0470 Part 1 (German standard)
Degree of protection by enclosure (IP Code)

5. Halogen-free

- EN 50267
Examination of cables and insulated wires
halogen-free materials

DK Cable Junction Boxes
Technical details
Cable junction boxes tested for intrinsic fire resistance



Junction box with connected cables after testing.

Safety circuits must remain operational for a sufficient period in accordance with the national regulations governing fire protection requirements for cable installations during exposure to fire.

This ensures that electrotechnical equipment such as luminaires, lifts, smoke outlets, alarm systems etc. are supplied with power for 30 or 90 minutes and thereby enable people to leave the building and assist rescue teams in carrying out their work.

When planning and implementing these cable installations, the current specimen regulation for fire protection requirements in these installations must be observed.

FK Cable junction boxes comply with these requirements when used together with type-approved cables as well as suitable cable clamps or mounting devices.

- Cable junction boxes tested for intrinsic fire restistance.
- Degree of protection IP 65, IP 66
- Box made from sheet steel with powder coating or duroplastic, pastel orange RAL 2003
- No additional fire load, no toxic or corrosive emissions
- Intrinsic fire resistance according to DIN 4102 part 12 (German standard) in connection with function-retaining cables of 0.5-16 mm²
- Protection against direct contact also maintained due to the box
- Captive cover with 4 screw fixings



Test temperature curve in accordance with DIN 4102

Box fixing with plugs:

Anchor (building materials)	**Fischer type ...**					**Hilti type ...**		
	FIS V..	**FNA..**	**FBS..**	**FBN..**	**FHY..**	**HUS..**	**HSA..**	**HIT-HY..**
Limestone blocks KS 12	x					x		x
Building bricks Mz 12	x					x		x
Airbricks HLz 12	x							x
Limestone air blocks KSL 12	x							x
Prestressed concrete slabs					x			
Porous concrete slabs => 3.3						x		x
Porous concrete blocks => 4						x		x
Concrete => B25 / =< B55		x	x	x		x	x	

Please observe the current approvals and notes from the manufacturer of the plugs.

Technical details
Cable junction boxes tested for intrinsic fire resistance

Ambient conditions in working operation:

Type	FK 7xx5	FK 5000, FK 6505, FK 9xx5	FK 9259
Application area	Suitable for indoor installation (normal environment and/or protected outdoor)		
Ambient temperature - Average value over 24 hours - Maximum value - Minimum value	 + 35 °C + 40 °C – 25 °C	 + 35 °C + 40 °C – 25 °C	 + 35 °C + 40 °C – 5 °C
Relative humidity - short-time	50 % at 40 °C 100 % at 25 °C	50 % at 40 °C 100 % at 25 °C	50 % at 40 °C 100 % at 25 °C
Material	Duroplast halogen-free	sheet steel, powder-coated halogen-free	
Degree of protection against mechanical load	IK06 (1 Joule)	IK10 (20 Joule)	

Standards and regulations:

IEC 60998 -1
EN 60998 Part 1

IEC 60998 -2 -1
EN 60998 Part 2-1

IEC 60670-22

IEC 60529
DIN VDE 0470 Part 1 (German standard)

EN 60947 -7 -1

EN 50262

DIN 4102 Part 12 (German standard)


HENSEL

KV Small-type Distribution Boards up to 63 A

- **3 to 54 modules**
- **degree of protection IP 54-65**
- **made from thermoplastic material**
- **protection class II, ⧈**
- **in accordance with IEC 60439-3**

Assignment of box walls	156
KV small-type distribution boards 3-54 modules Cable entry via integrated eleastic membranes	157-179
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KV small-type distribution boards 3-48 modules “Weatherproof”, for outdoor installation (harsh environment and/or outdoor)	199 - 206
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KV Extra circuit-breaker boxes With additional space for electrical devices not to be manually actuated Cable entry via integrated elastic membranes	212 - 215
KV Extra circuit-breaker boxes With additional space for electrical devices not to be manually actuated Cable entry via metric knockouts	216 - 219
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Info **Further technical information can be found on the Internet**
www.hensel-electric.de -> Products

Assignment of box walls:

The assignment of box walls is effected via wall symbols that are assigned to each product. The individual figures 2 give an indication, which wall is concerned.



All box walls are listed in the fold-out of the coverpages.

Box walls with membranes

Wall 1
3 x ø 7-16 mm



Wall 2
4 x ø 7-16 mm
1 x ø 10-20 mm



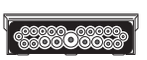
Wall 3
4 x ø 7-16 mm
2 x ø 10-20 mm
1 x ø 10-24 mm



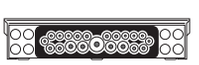
Wall 4
8 x ø 7-16 mm
2 x ø 10-20 mm
1 x ø 10-24 mm



Wall 5
8 x ø 7-12 mm
8 x ø 7-14 mm
4 x ø 12-20 mm
1 x ø 16,5-29 mm



Wall 6
8 x ø 7-12 mm
8 x ø 7-14 mm
4 x ø 12-20 mm
1 x ø 16,5-29 mm
8 x ø M 20



Box walls with cable glands for conduits and elastic membranes

Wall 22
8 x Ø M 16/20
for conduit or cable Ø 9-14 mm
1 x M 25/32 for conduit or cable
Ø 18-24 mm, 6 x Ø 9-18 mm

Wall 23
8 x Ø M 16/20
for conduit or cable Ø 9-14 mm,
1 x M 25/32 for conduit or
cable Ø 18-24 mm, 6 x Ø 9-18 mm,
8 x M 20



Box walls with metric membranes

Wall 7
1 x M 20



Wall 8
3 x M 16



Wall 9
2 x M 20



Wall 10
2 x M 20
1 x M 20/32



Wall 11
2 x M 20
1 x M 20/32



Wall 12
4 x M 20
1 x M 20/32



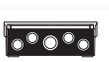
Wall 13
2 x M 20
1 x M 25/32



Wall 14
2 x M 20/25
1 x M 25/32



Wall 15
4 x M 20/25
1 x M 25/32



Wall 16
2 x M 20
2 x M 25
1 x M 32/40



Wall 17
4 x M 20
2 x M 20/25
1 x M 32



Wall 18
12 x M 20
2 x M 20/25
1 x M 32



Wall 19
4 x M 20
2 x M 25/32
1 x M 32/40



Wall 20
6 x M 20
2 x M 25/32
1 x M 32/40



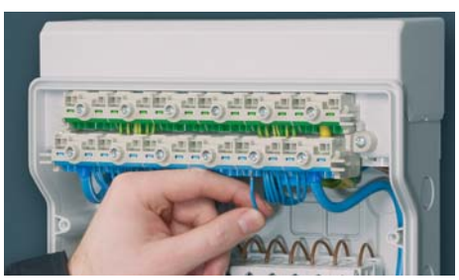
Wall 21
2 x AVS 16/
EVS 16



KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via integrated elastic membranes



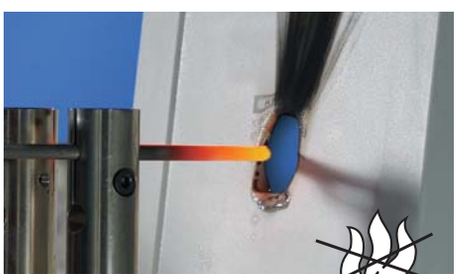




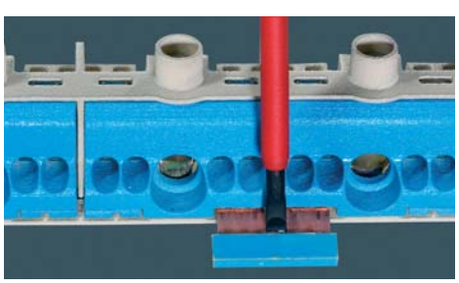
- FIXCONNECT® terminal technology for PE and N
- connection for copper conductors



- 12 to 54 modules: attached blanking strips for DIN rail equipment openings.
- 3 to 9 modules: protective cover can be cut out



- Burning behaviour: Glow wire test according to IEC 60 695-2-11: 750 °C, flame-retardant, self-extinguishing



- KV Small-type Distribution Boards with up to four disconnectable N-potentials in one bar enabel the installation of RCDs without additional efforts or accessories.



- Integrated compartment for accessories - everything has its proper place.
- Screws made of stainless steel V2A.



- Cable entry via integrated elastic membranes

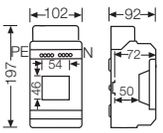


KV 9103

3 modules: 1 x 3 x 18 mm



- 1-row
- per PE/N number x cross section 1 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 10 Watt according to EN 60670-24

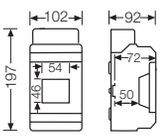


KV 8103

3 modules: 1 x 3 x 18 mm without PE and N terminal



- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 10 Watt according to EN 60670-24

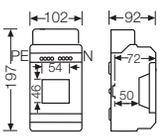


KV 1503

3 modules: 1 x 3 x 18 mm



- 1-row
- per PE/N number x cross section 1 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 10 Watt according to EN 60670-24

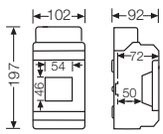


KV 1603

3 modules: 1 x 3 x 18 mm
without PE and N terminal



- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes



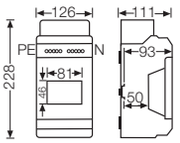
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 10 Watt according to EN 60670-24



KV 9104

4.5 modules: 1 x 4.5 x 18 mm





- 1-row
- per PE/N number x cross section 2 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

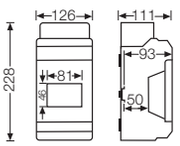
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 12 Watt according to EN 60670-24



KV 8104

4.5 modules: 1 x 4.5 x 18 mm without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

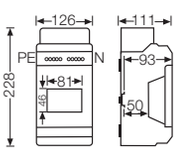
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 12 Watt according to EN 60670-24



KV 1504

4.5 modules: 1 x 4.5 x 18 mm





- 1-row
- per PE/N number x cross section 2 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 12 Watt according to EN 60670-24

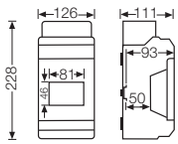


KV 1604

4.5 modules: 1 x 4.5 x 18 mm
without PE and N terminal



- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 12 Watt according to EN 60670-24

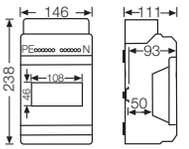
KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via integrated elastic membranes



KV 9106

6 modules: 1 x 6 x 18 mm





- 1-row
- per PE/N number x cross section 2 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

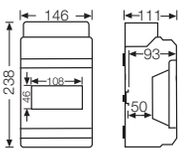
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 13 Watt according to EN 60670-24



KV 8106

6 modules: 1 x 6 x 18 mm
without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

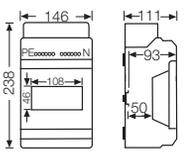
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 13 Watt according to EN 60670-24



KV 1506

6 modules: 1 x 6 x 18 mm





- 1-row
- per PE/N number x cross section 2 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 13 Watt according to EN 60670-24

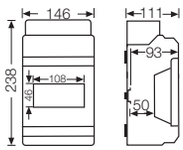


KV 1606

6 modules: 1 x 6 x 18 mm
without PE and N terminal



- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 13 Watt according to EN 60670-24

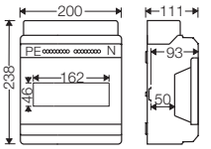
KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via integrated elastic membranes



KV 9109

9 modules: 1 x 9 x 18 mm





- 1-row
- per PE/N number x cross section 2 x 25 mm², 8 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

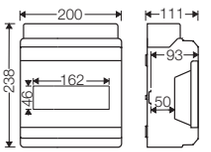
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 16 Watt according to EN 60670-24



KV 8109

9 modules: 1 x 9 x 18 mm
without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

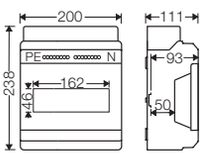
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 16 Watt according to EN 60670-24



KV 1509

9 modules: 1 x 9 x 18 mm





- 1-row
- per PE/N number x cross section 2 x 25 mm², 8 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

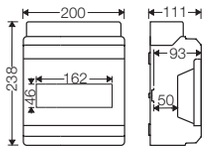
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 16 Watt according to EN 60670-24



KV 1609

9 modules: 1 x 9 x 18 mm
without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out
- cable entry via integrated elastic membranes

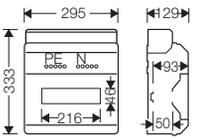
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 16 Watt according to EN 60670-24



KV 9112

12 modules: 1 x 12 x 18 mm





- 1-row
- per PE/N number x cross section 3 x 25 mm², 12 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

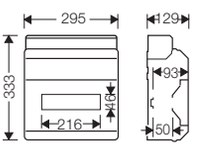
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV 8112

12 modules: 1 x 12 x 18 mm without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

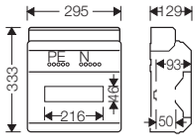
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV 1512

12 modules: 1 x 12 x 18 mm





- 1-row
- per PE/N number x cross section 3 x 25 mm², 12 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

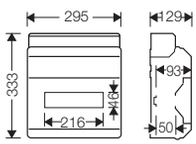
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} according to EN 60670-24 = 26 Watt



KV 1612

12 modules: 1 x 12 x 18 mm without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

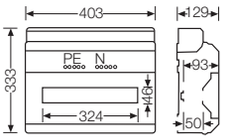
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} according to EN 60670-24 = 26 Watt



KV 9118

18 modules: 1 x 18 x 18 mm





- 1-row
- per PE/N number x cross section 4 x 25 mm², 16 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

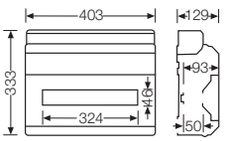
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24



KV 8118

18 modules: 1 x 18 x 18 mm without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

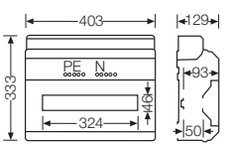
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24



KV 1518

18 modules: 1 x 18 x 18 mm





- 1-row
- per PE/N number x cross section 4 x 25 mm², 16 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24

KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via integrated elastic membranes

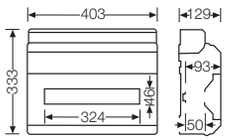


KV 1618



18 modules: 1 x 18 x 18 mm
without PE and N terminal

- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24

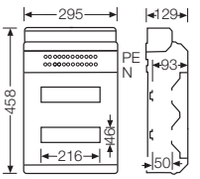
KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via integrated elastic membranes



KV 9224

24 modules: 2 x 12 x 18 mm





- 2-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

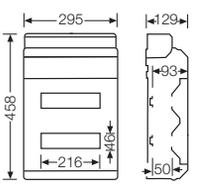
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV 8224

24 modules: 2 x 12 x 18 mm without PE and N terminal





- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

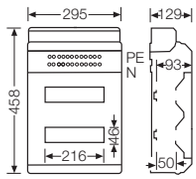
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV 2524

24 modules: 2 x 12 x 18 mm





- 2-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

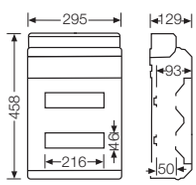
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV 2624

24 modules: 2 x 12 x 18 mm without PE and N terminal





- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24

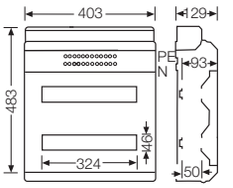
KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via integrated elastic membranes



KV 9236

36 modules: 2 x 18 x 18 mm





- 2-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

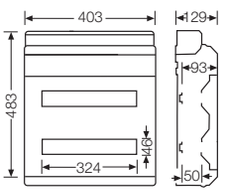
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24



KV 8236

36 modules: 2 x 18 x 18 mm without PE and N terminal





- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

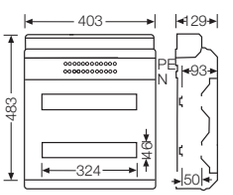
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24



KV 2536

36 modules: 2 x 18 x 18 mm





- 2-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24

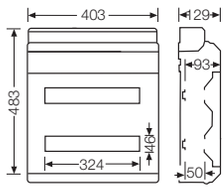


KV 2636

36 modules: 2 x 18 x 18 mm
without PE and N terminal



- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



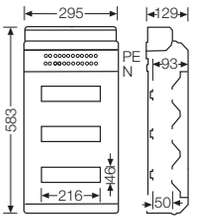
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24



KV 9336

36 modules: 3 x 12 x 18 mm





- 3-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

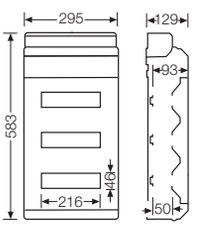
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24



KV 8336

36 modules: 3 x 12 x 18 mm without PE and N terminal





- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24

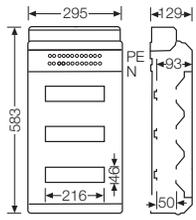
KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via integrated elastic membranes



KV 3536

36 modules: 3 x 12 x 18 mm





- 3-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

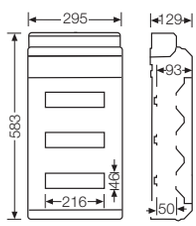
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24



KV 3636

36 modules: 3 x 12 x 18 mm without PE and N terminal





- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

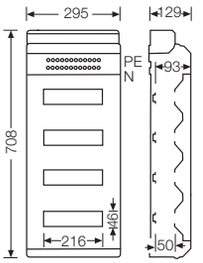
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24



KV 9448

48 modules: 4 x 12 x 18 mm





- 4-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

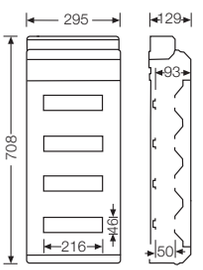
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} according to EN 60670-24 = 43 Watt



KV 8448

48 modules: 4 x 12 x 18 mm without PE and N terminal





- 4-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} according to EN 60670-24 = 43 Watt

KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via integrated elastic membranes

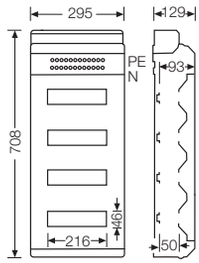


KV 4548

48 modules: 4 x 12 x 18 mm



- 4-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} according to EN 60670-24 = 43 Watt

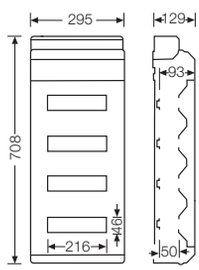


KV 4648

48 modules: 4 x 12 x 18 mm without PE and N terminal



- 4-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} according to EN 60670-24 = 43 Watt

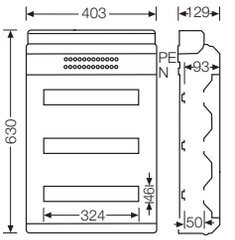


KV 9354

54 modules: 3 x 18 x 18 mm



- 3-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 50 Watt according to EN 60670-24

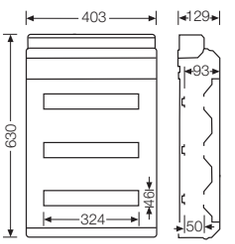


KV 8354

54 modules: 3 x 18 x 18 mm without PE and N terminal



- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 50 Watt according to EN 60670-24

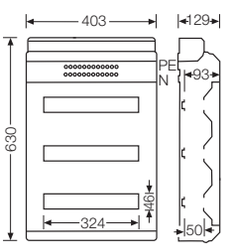


KV 3554

54 modules: 3 x 18 x 18 mm



- 3-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 50 Watt according to EN 60670-24

KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via integrated elastic membranes

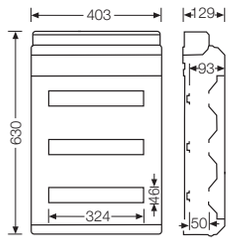


KV 3654

54 modules: 3 x 18 x 18 mm
without PE and N terminal



- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

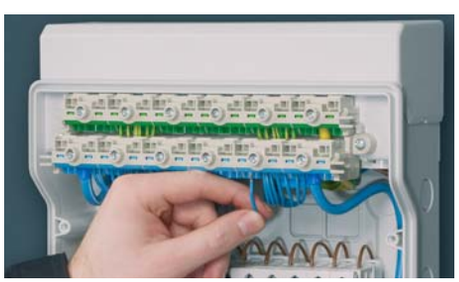


rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 50 Watt according to EN 60670-24

KV Small-type Distribution Boards
Circuit breaker boxes
Cable entry via metric knockouts







- FIXCONNECT® terminal technology for PE and N
- connection for copper conductors



- 12 to 54 modules: attached blanking strips for DIN rail equipment openings.
- 3 to 9 modules: protective cover can be cut out



- Burning behaviour: Glow wire test according to IEC 60 695-2-11: 750 °C, flame-retardant, self-extinguishing



- Integrated compartment for accessories - everything has its proper place.
- Screws made of stainless steel V2A.



- KV Small-type Distribution Boards with earthed armoured cables according to British Standard.



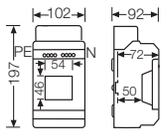
- Cable / Conduit entry via metric knock-outs



KV 7103

3 modules: 1 x 3 x 18 mm

IP 65 | PS | RAL 7035 | 9 Wall 9



- 1-row
- knockouts: top and bottom walls 2x M20 each
- per PE/N number x cross section 1 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out

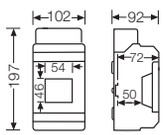
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 10 Watt according to EN 60670-24



KV 6103

3 modules: 1 x 3 x 18 mm without PE and N terminal

IP 65 | PS | RAL 7035 | 9 Wall 9



- 1-row
- knockouts: top and bottom walls 2x M20 each
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out

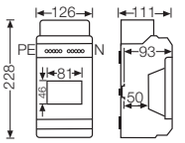
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 10 Watt according to EN 60670-24



KV 7104

4.5 modules: 1 x 4.5 x 18 mm





- 1-row
- knockouts: top and bottom walls 2x M20 and 1x M25/32 each
- per PE/N number x cross section 2 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out

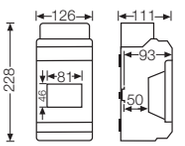
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 12 Watt according to EN 60670-24



KV 6104

4.5 modules: 1 x 4.5 x 18 mm without PE and N terminal





- 1-row
- knockouts: top and bottom walls 2x M20 and 1x M25/32 each
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out

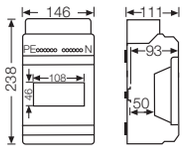
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 12 Watt according to EN 60670-24



KV 7106

6 modules: 1 x 6 x 18 mm





- 1-row
- knockouts: top and bottom walls 2x M20/25 and 1x M25/32 each
- per PE/N number x cross section 2 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out

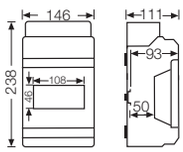
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 13 Watt according to EN 60670-24



KV 6106

6 modules: 1 x 6 x 18 mm without PE and N terminal





- 1-row
- knockouts: top and bottom walls 2x M20/25 and 1x M25/32 each
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out

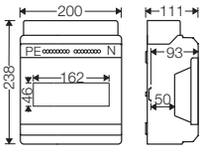
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 13 Watt according to EN 60670-24



KV 7109

9 modules: 1 x 9 x 18 mm





- 1-row
- knockouts: top and bottom walls 4x M20/25 and 1x M25/32 each
- per PE/N number x cross section 2 x 25 mm², 8 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out

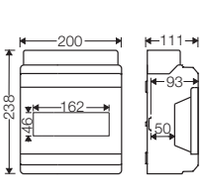
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 16 Watt according to EN 60670-24



KV 6109

9 modules: 1 x 9 x 18 mm without PE and N terminal





- 1-row
- knockouts: top and bottom walls 4x M20/25 and 1x M25/32 each
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out

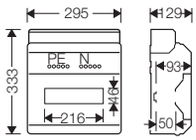
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 16 Watt according to EN 60670-24



KV 9112 M

12 modules: 1 x 12 x 18 mm





- 1-row
- per PE/N number x cross section 3 x 25 mm², 12 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

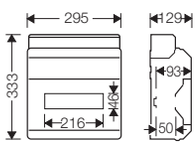
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV 8112 M

12 modules: 1 x 12 x 18 mm without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

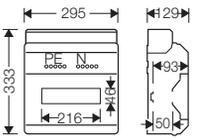
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV 1512 M

12 modules: 1 x 12 x 18 mm





- 1-row
- per PE/N number x cross section 3 x 25 mm², 12 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

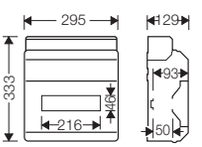
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV 1612 M

12 modules: 1 x 12 x 18 mm without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

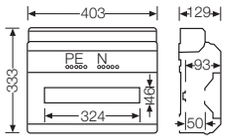
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV 9118 M

18 modules: 1 x 18 x 18 mm





- 1-row
- per PE/N number x cross section 4 x 25 mm², 16 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each

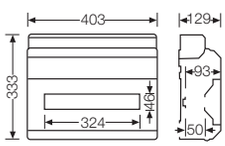
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24



KV 8118 M

18 modules: 1 x 18 x 18 mm without PE and N terminal





- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each

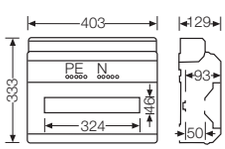
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24



KV 1518 M

18 modules: 1 x 18 x 18 mm





- 1-row
- per PE/N number x cross section 4 x 25 mm², 16 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24

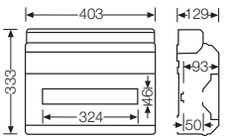


KV 1618 M



18 modules: 1 x 18 x 18 mm
without PE and N terminal

- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each



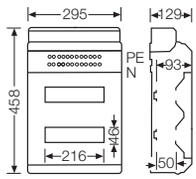
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24



KV 9224 M

24 modules: 2 x 12 x 18 mm





- 2-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

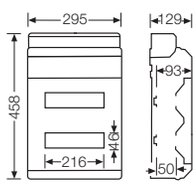
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV 8224 M

24 modules: 2 x 12 x 18 mm without PE and N terminal





- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

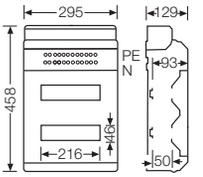
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV 2524 M

24 modules: 2 x 12 x 18 mm





- 2-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

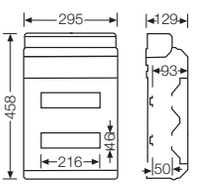
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV 2624 M

24 modules: 2 x 12 x 18 mm without PE and N terminal





- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

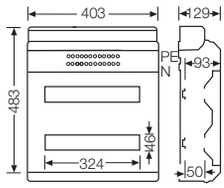
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV 9236 M

36 modules: 2 x 18 x 18 mm





- 2-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each

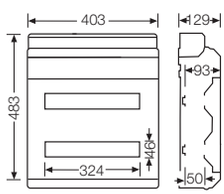
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24



KV 8236 M

36 modules: 2 x 18 x 18 mm without PE and N terminal





- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each

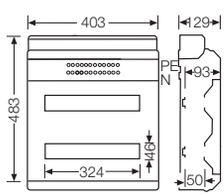
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24



KV 2536 M

36 modules: 2 x 18 x 18 mm





- 2-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24

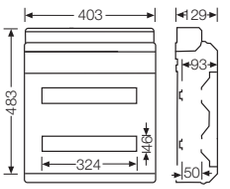


KV 2636 M

36 modules: 2 x 18 x 18 mm
without PE and N terminal



- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each



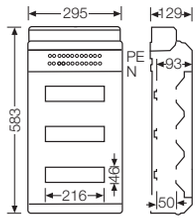
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24



KV 9336 M

36 modules: 3 x 12 x 18 mm





- 3-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable for various potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

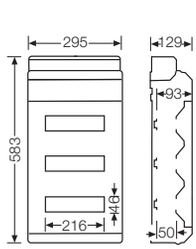
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24



KV 8336 M

36 modules: 3 x 12 x 18 mm without PE and N terminal





- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

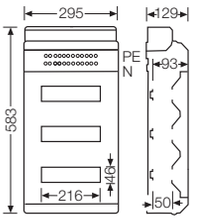
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24



KV 3536 M

36 modules: 3 x 12 x 18 mm





- 3-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

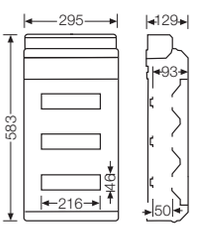
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24



KV 3636 M

36 modules: 3 x 12 x 18 mm without PE and N terminal





- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

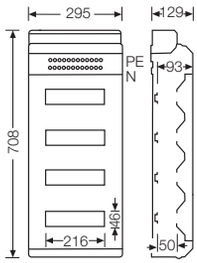
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24



KV 9448 M

48 modules: 4 x 12 x 18 mm





- 4-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

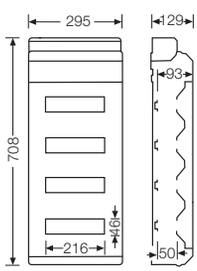
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 43 Watt according to EN 60670-24



KV 8448 M

48 modules: 4 x 12 x 18 mm without PE and N terminal





- 4-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

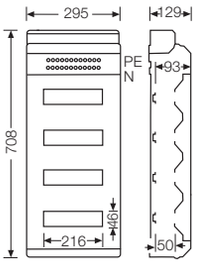
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 43 Watt according to EN 60670-24



KV 4548 M

48 modules: 4 x 12 x 18 mm





- 4-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

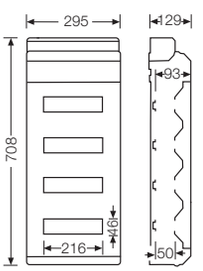
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 43 Watt according to EN 60670-24



KV 4648 M

48 modules: 4 x 12 x 18 mm without PE and N terminal





- 4-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 43 Watt according to EN 60670-24

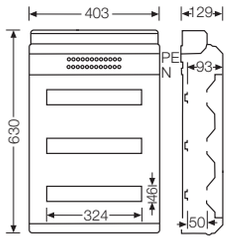


KV 9354 M

54 modules: 3 x 18 x 18 mm

IP 65 | PS | RAL 7035 | 18 Wall 18

- 3-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 50 Watt according to EN 60670-24

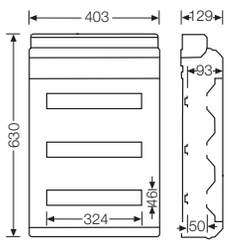


KV 8354 M

54 modules: 3 x 18 x 18 mm without PE and N terminal

IP 65 | PS | RAL 7035 | 18 Wall 18

- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 50 Watt according to EN 60670-24

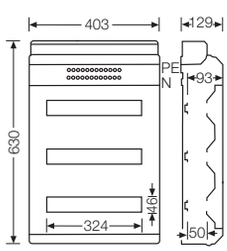


KV 3554 M

54 modules: 3 x 18 x 18 mm

IP 54 | PS | RAL 7035 | 18 Wall 18

- 3-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 50 Watt according to EN 60670-24

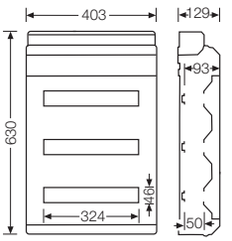


KV 3654 M

54 modules: 3 x 18 x 18 mm
without PE and N terminal



- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each

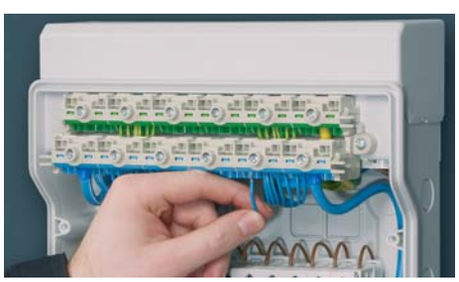


rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 50 Watt according to EN 60670-24

KV Small-type Distribution Boards
„Weatherproof“, for outdoor installation (Harsh environment and/or outdoor)



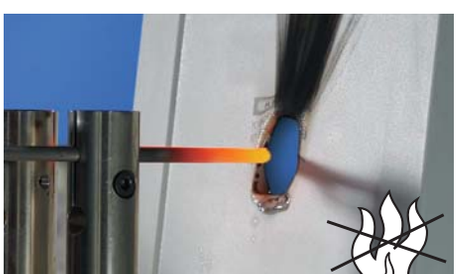




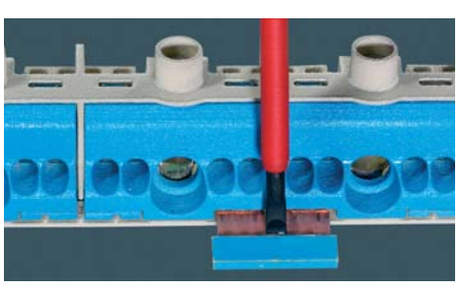
- FIXCONNECT® terminal technology for PE and N
- connection for copper conductors



- 12 to 54 modules: attached blanking strips for DIN rail equipment openings.
- 3 to 9 modules: protective cover can be cut out



- Burning behaviour: Glow wire test according to IEC 60 695-2-11: 960 °C, flame-retardant, self-extinguishing

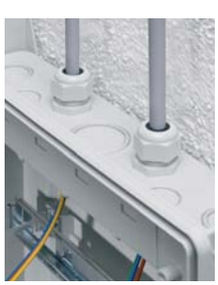


- KV Small-type Distribution Boards with up to four disconnectable N-potentials in one bar enabel the installation of RCDs without additional efforts or accessories.



- Integrated compartment for accessories - everything has its proper place.
- Screws made of stainless steel V2A.





- Cable entry via integrated elastic membranes or
- via metric knockouts

KV Small-type Distribution Boards
„Weatherproof“, for outdoor installation (Harsh environment and/or outdoor)

The enclosures are suitable for the outdoor installation - harsh envirionment and / or outdoor.

The materials used for the system are basically UV resistant, so that the mechanical resistance of the boxes is maintained during UV effect.

Direct solar radiation and power dissipation can overheat the interior of the enclosure. Also affect lower outdoor temperatures, e.g. below -5 °C, the device technology. Therefore, the climatic influences and effects on the device technology must be considered.

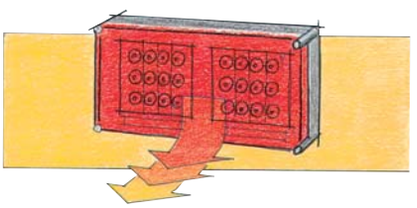
The top side of the boxes should be protected by a cover against weather influences such as rain, ice and snow. Further on, also chemical influences have to be considered with the selection of the installation place - apart from the IP rating and climatic effects.

In order to keep the maximum permissible ambient temperature of the installed equipment as well as for the prevention from condensation additional measures, such as ventilation and/or heating may be necessary (observe degree of protection).

How does condensed water occur in enclosures with a high degree of protection?
The problem of condensed water forming in electrical installations only occurs in enclosures with a degree of protection ≥ IP 54 since the temperature adjustment that is carried out from inside to outside is too low due to the high density of the enclosure and its material.

System switched on.

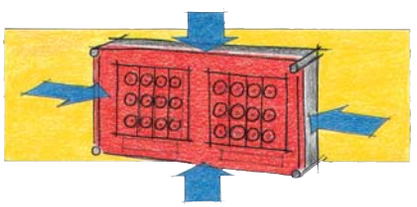




The internal temperature is higher than the external temperature due to the power dissipation of the built-in devices.

System switched on.





The warm air inside the enclosure attempts to accumulate moisture. This comes from outside through the seal as the enclosures are not gas-tight.

System switched off.

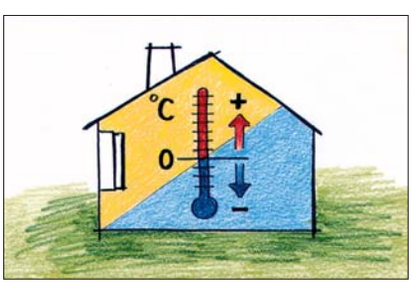




The internal temperature is reduced by cooling down the system e.g. by switching off the loads. The cooler air emits moisture which is collected as condensed water on the cooling inner surfaces.

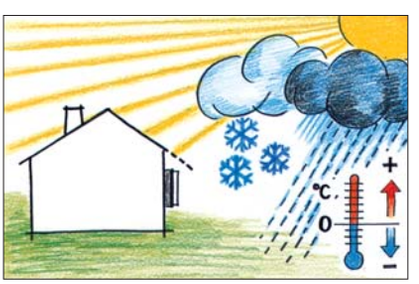
How does condensed water occur in enclosures with a high degree of protection?

Formation of condensed water for **indoor installations:**



In areas where high levels of air humidity and large temperature fluctuations are expected e.g. in laundry rooms. kitchens. car washes etc.

Formation of condensed water in **protected outdoor installations** (protected against weather influences) **or unprotected outdoor** installations:



Here condensed water can be formed dependent on the weather, high air humidity, direct sunlight and temperature differences compared to the wall.

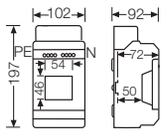


KV PC 9103

3 modules: 1 x 3 x 18 mm



- 1-row
- knockouts: top and bottom walls 2x M20 each
- per PE/N number x cross section 1 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 10 Watt according to EN 60670-24

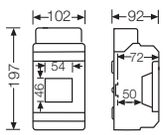


KV PC 6103

3 modules: 1 x 3 x 18 mm without PE and N terminal



- 1-row
- knockouts: top and bottom walls 2x M20 each
- order PE/N terminals separately
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out



rated insulation voltage	U_i = 400 V a.c. U_i = 1000 V d.c.
power output	maximum power output P_{de} = 10 Watt according to EN 60670-24

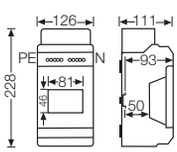


KV PC 9104

4.5 modules: 1 x 4.5 x 18 mm



- 1-row
- knockouts: top and bottom walls 2x M20 and 1x M25/32 each
- per PE/N number x cross section 2 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 12 Watt according to EN 60670-24

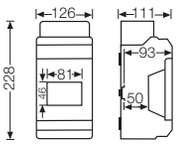


KV PC 6104



4.5 modules: 1 x 4.5 x 18 mm
without PE and N terminal

- 1-row
- knockouts: top and bottom walls 2x M20 and 1x M25/32 each
- order PE/N terminals separately
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out



rated insulation voltage	U_i = 400 V a.c. U_i = 1000 V d.c.
power output	maximum power output P_{de} = 12 Watt according to EN 60670-24

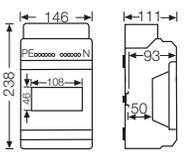


KV PC 9106



6 modules: 1 x 6 x 18 mm

- 1-row
- knockouts: top and bottom walls 2x M20/25 and 1x M25/32 each
- per PE/N number x cross section 2 x 25 mm², 4 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 13 Watt according to EN 60670-24

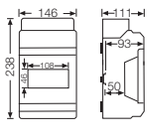


KV PC 6106



6 modules: 1 x 6 x 18 mm without PE and N terminal

- 1-row
- knockouts: top and bottom walls 2x M20/25 and 1x M25/32 each
- order PE/N terminals separately
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out



rated insulation voltage	U_i = 400 V a.c. U_i = 1000 V d.c.
power output	maximum power output P_{de} = 13 Watt according to EN 60670-24

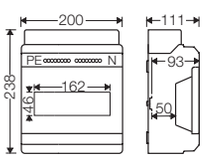


KV PC 9109



9 modules: 1 x 9 x 18 mm

- 1-row
- knockouts: top and bottom walls 4x M20/25 and 1x M25/32 each
- per PE/N number x cross section 2 x 25 mm², 8 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 16 Watt according to EN 60670-24

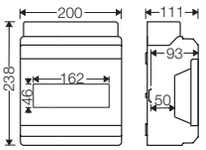


KV PC 6109



9 modules: 1 x 9 x 18 mm
without PE and N terminal

- 1-row
- knockouts: top and bottom walls 4x M20/25 and 1x M25/32 each
- order PE/N terminals separately
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent lid, sealable
- locking device for hinged lid and sealing facility see accessories
- with cable entry cover
- protective cover can be cut out



rated insulation voltage	U_i = 400 V a.c. U_i = 1000 V d.c.
power output	maximum power output P_{de} = 16 Watt according to EN 60670-24

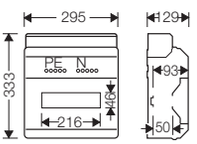


KV PC 9112



12 modules: 1 x 12 x 18 mm

- 1-row
- cable entry via integrated elastic membranes
- per PE/N number x cross section 3 x 25 mm², 12 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- lateral enclosure connections can be managed by drilling



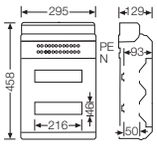
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV PC 9224

24 modules: 2 x 12 x 18 mm





- 2-row
- cable entry via integrated elastic membranes
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- lateral enclosure connections can be managed by drilling

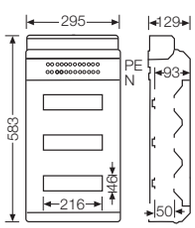
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV PC 9336

36 modules: 3 x 12 x 18 mm





- 3-row
- cable entry via integrated elastic membranes
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- lateral enclosure connections can be managed by drilling

rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24

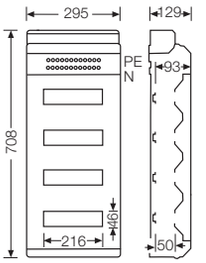


KV PC 9448

48 modules: 4 x 12 x 18 mm



- 4-row
- cable entry via integrated elastic membranes
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- lateral enclosure connections can be managed by drilling



rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 43 Watt according to EN 60670-24



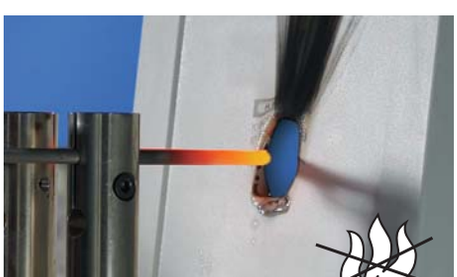




- Conduit entry via integrated elastic membranes



- Door hinging interchangeable fast and easy from left to right.



- Burning behaviour: Glow wire test according to IEC 60 695-2-11: 750 °C, flame-retardant, self-extinguishing



- 12 to 54 modules: attached blanking strips for DIN rail equipment openings



- Plenty of space for installation and wiring: Easy access to built-in equipment by lower side walls.



- Integrated compartment for accessories - everything has its proper place.
- Screws made of stainless steel V2A.

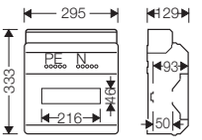
KV Small-type Distribution Boards
Circuit breaker boxes
Conduit entry via integrated elastic membranes



KV 1712

12 modules: 1 x 12 x 18 mm





- 1-row
- per PE/N number x cross section 3 x 25 mm², 12 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable for various potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- with cable glands for conduits and elastic membranes

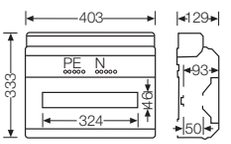
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV 1718

18 modules: 1 x 18 x 18 mm





- 1-row
- per PE/N number x cross section 4 x 25 mm², 16 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable for various potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- with cable glands for conduits and elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24

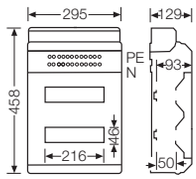
KV Small-type Distribution Boards
Circuit breaker boxes
Conduit entry via integrated elastic membranes



KV 2724

24 modules: 2 x 12 x 18 mm





- 2-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- with cable glands for conduits and elastic membranes

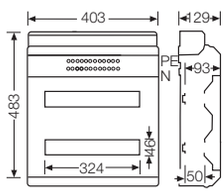
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV 2736

36 modules: 2 x 18 x 18 mm





- 2-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- with cable glands for conduits and elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24

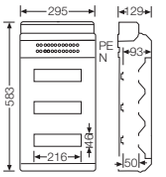
KV Small-type Distribution Boards
Circuit breaker boxes
Conduit entry via integrated elastic membranes



KV 3736

36 modules: 3 x 12 x 18 mm





- 3-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- with cable glands for conduits and elastic membranes

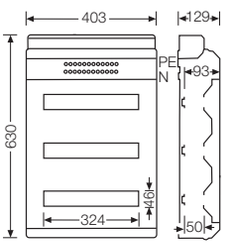
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24



KV 3754

54 modules: 3 x 18 x 18 mm





- 3-row
- per PE/N number x cross section 8 x 25 mm², 32 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- with cable glands for conduits and elastic membranes

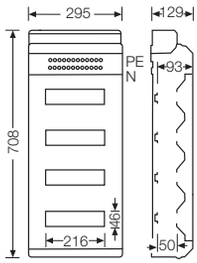
rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 50 Watt according to EN 60670-24



KV 4748

48 modules: 4 x 12 x 18 mm





- 4-row
- per PE/N number x cross section 6 x 25 mm², 24 x 4 mm² Cu, FIXCONNECT® terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- with cable glands for conduits and elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 43 Watt according to EN 60670-24

KV Small-type Distribution Boards

Circuit breaker boxes with additional space for electrical devices not to be manually actuated
Cable entry via integrated elastic membranes



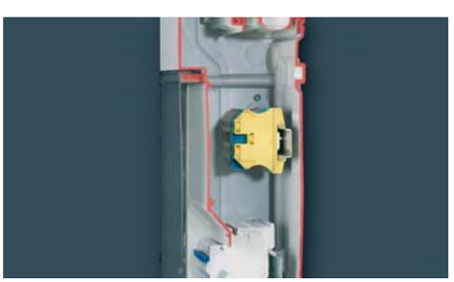




- Compact user friendly solution, optically optimized.
- Pre-assembly and wiring are possible inthe workshop when terminal blocks are provided for.



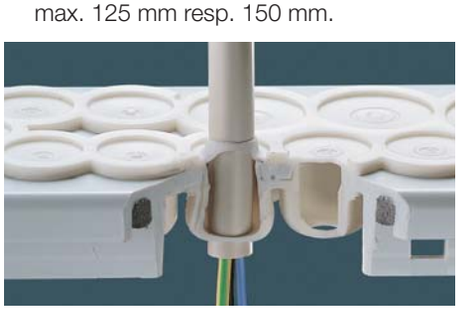
- Additional space with DIN rail over the total enclosure width for electrical devices not to be manually actuated. Installation depth 72 mm. Installation height max. 125 mm resp. 150 mm.



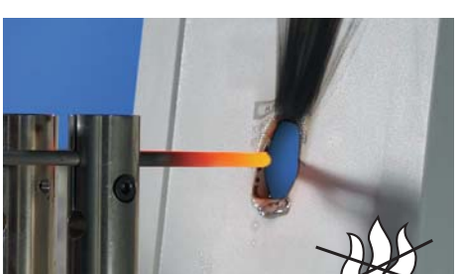
- DIN rail equipment (dimensions according to DIN 43 880) can be installed in the same enclosure.



- Integrated compartment for accessories - everything has its proper place.
- Screws made of stainless steel V2A.



- Cable entry via integrated elastic membranes



- Burning behaviour: Glow wire test according to IEC 60 695-2-11: 750 °C, flame-retardant, self-extinguishing

KV Small-type Distribution Boards

Circuit breaker boxes with additional space for electrical devices not to be manually actuated Cable entry via integrated elastic membranes

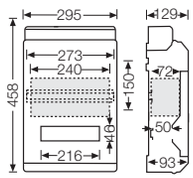


KV 9220



12 modules: 1 x 12 x 18 mm without PE and N terminal

- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 273 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24

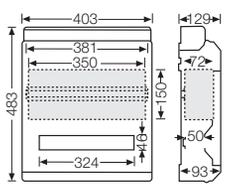


KV 9230



18 modules: 1 x 18 x 18 mm without PE and N terminal

- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 381 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24

KV Small-type Distribution Boards

Circuit breaker boxes with additional space for electrical devices not to be manually actuated
Cable entry via integrated elastic membranes

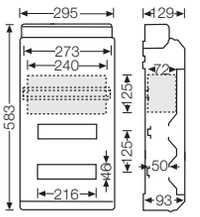


KV 9330



24 modules: 2 x 12 x 18 mm
without PE and N terminal

- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 273 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24

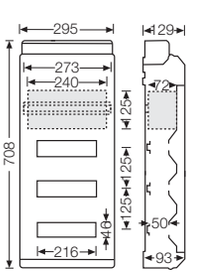


KV 9440



36 modules: 3 x 12 x 18 mm
without PE and N terminal

- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 273 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes



rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24

KV Small-type Distribution Boards

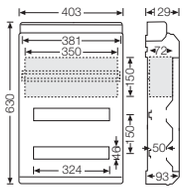
Circuit breaker boxes with additional space for electrical devices not to be manually actuated
Cable entry via integrated elastic membranes



KV 9350



36 modules: 2 x 18 x 18 mm
without PE and N terminal



- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 381 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- cable entry via integrated elastic membranes

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24

KV Small-type Distribution Boards

Circuit breaker boxes with additional space for electrical devices not to be manually actuated
Cable entry via metric knockouts



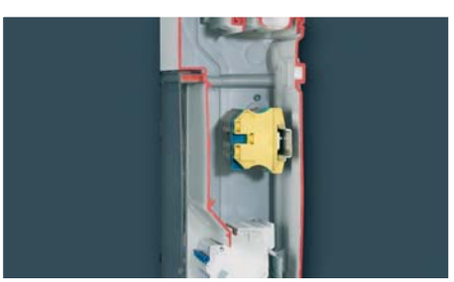




- Compact user friendly solution, optically optimized.
- Pre-assembly and wiring are possible inthe workshop when terminal blocks are provided for.



- Additional space with DIN rail over the total enclosure width for electrical devices not to be manually actuated. Installation depth 72 mm. Installation height max. 125 mm resp. 150 mm.



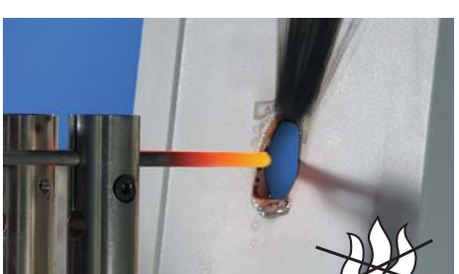
- DIN rail equipment (dimensions according to DIN 43 880) can be installed in the same enclosure.



- Integrated compartment for accessories - everything has its proper place.
- Screws made of stainless steel V2A.



- Cable / concuit entry via metric knockouts



- Burning behaviour: Glow wire test according to IEC 60 695-2-11: 750 °C, flame-retardant, self-extinguishing

KV Small-type Distribution Boards

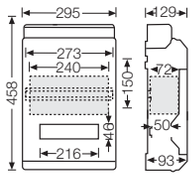
Circuit breaker boxes with additional space for electrical devices not to be manually actuated
Cable entry via metric knockouts



KV 9220 M

IP 65 | PS | RAL 7035 | 17 Wall 17

12 modules: 1 x 12 x 18 mm without PE and N terminal



- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 273 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

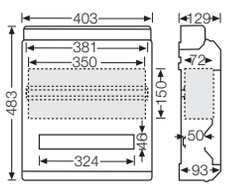
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV 9230 M

IP 65 | PS | RAL 7035 | 18 Wall 18

18 modules: 1 x 18 x 18 mm without PE and N terminal



- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 381 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24

KV Small-type Distribution Boards

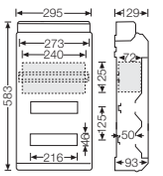
Circuit breaker boxes with additional space for electrical devices not to be manually actuated
Cable entry via metric knockouts



KV 9330 M

IP 65 | PS | RAL 7035 | 17 Wall 17

24 modules: 2 x 12 x 18 mm without PE and N terminal



- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 273 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

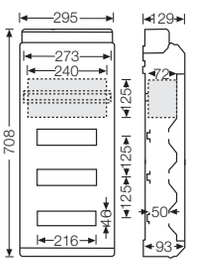
rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24



KV 9440 M

IP 65 | PS | RAL 7035 | 17 Wall 17

36 modules: 3 x 12 x 18 mm without PE and N terminal



- 3-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 273 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 4x M20, 2x M20/25 and 1x M32 each

rated insulation voltage	U_i = 400 V a.c.
power output	permissible power dissipation P_{zul} = 28 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 35 Watt according to EN 60670-24

KV Small-type Distribution Boards

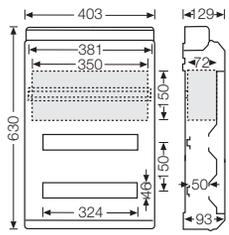
Circuit breaker boxes with additional space for electrical devices not to be manually actuated Cable entry via metric knockouts



KV 9350 M



36 modules: 2 x 18 x 18 mm without PE and N terminal



- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with additional space for electrical devices not to be manually actuated
- with 1 DIN rail, 381 mm wide, for DIN rail equipment and terminal blocks with max. mounting depth 72 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with blanking strips for unused DIN rail openings
- knockouts: top and bottom walls 12x M20, 2x M20/25 and 1x M32 each

rated insulation voltage	U_i = 400 V a.c.
power output	maximum power output P_{de} = 38 Watt according to EN 60670-24

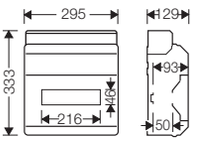
KV small-type distribution boards
Circuit breaker boxes with flanges which can be drilled individually



KV 8112 G NEW

IP 65 | PS | RAL 7035

12 modules: 1 x 12 x 18 mm without PE and N terminal



- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with two flanges which can be drilled individually, closed. Useable area 52 mm x 252 mm
- with blanking strips for unused DIN rail openings

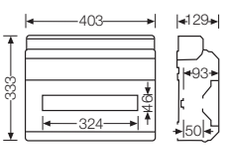
power output	permissible power dissipation P_{zul} = 21 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 26 Watt according to EN 60670-24



KV 8118 G NEW

IP 65 | PS | RAL 7035

18 modules: 1 x 18 x 18 mm without PE and N terminal



- 1-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with two flanges which can be drilled individually, closed. Useable area 52 mm x 252 mm
- with blanking strips for unused DIN rail openings

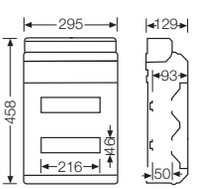
power output	maximum power output P_{de} = 33 Watt according to EN 60670-24



KV 8224 G NEW

IP 65 | PS | RAL 7035

24 modules: 2 x 12 x 18 mm without PE and N terminal



- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with two flanges which can be drilled individually, closed. Useable area 52 mm x 252 mm
- with blanking strips for unused DIN rail openings

power output	permissible power dissipation P_{zul} = 25 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 31 Watt according to EN 60670-24

KV small-type distribution boards
Circuit breaker boxes with flanges which can be drilled individually

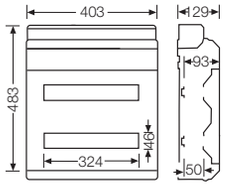


KV 8236 G NEW

IP 65 | PS | RAL 7035

36 modules: 2 x 18 x 18 mm without PE and N terminal

- 2-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with two flanges which can be drilled individually, closed. Useable area 52 mm x 252 mm
- with blanking strips for unused DIN rail openings



power output	maximum power output P_{de} = 38 Watt according to EN 60670-24

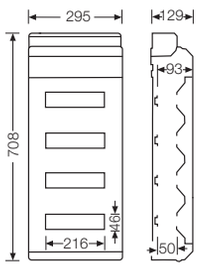


KV 8448 G NEW

IP 65 | PS | RAL 7035

48 modules: 4 x 12 x 18 mm without PE and N terminal

- 4-row
- order PE/N terminals separately
- for the installation of DIN rail equipment, top hat profile 35 mm
- with transparent door
- for locking device for door and facility for sealing refer to accessories
- with cable entry cover
- with two flanges which can be drilled individually, closed. Useable area 52 mm x 252 mm
- with blanking strips for unused DIN rail openings



power output	permissible power dissipation P_{zul} = 34 Watt at 30 Kelvin according to DIN 43871 maximum power output P_{de} = 43 Watt according to EN 60670-24





- KG empty boxes:
  Cable entry via metric knock outs.



- Cable entry via integrated elastic membranes.
- (exept for KG Empty boxes)



- Burning behaviour:
  Glow wire test according to IEC 60 695-2-11: 750 °C, flame-retardant, self-extinguishing



- Screws made of stainless steel V2A.

KV Small-type Distribution Boards
Empty boxes IP 55/IP 65 with transparent hinged lid

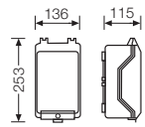


KG 9001

IP 55 ESM | IP 65 | PS | RAL 7035 | 16 / 21 Wall 21 / 16

Degree of protection: IP 55 (ESM), IP 65 (see cable entry systems LES)

- for installation equipment on DIN rails or mounting plates
- max. installation depth with built-in mounting plate 95 mm, with built-in DIN rail 89 mm
- with transparent hinged lid
- fastener for tool operation
- sealable
- cable entry via metric knockouts
- included cable entry:
  2 ESM 25, sealing range Ø 9-17 mm and
  1 ESM 32, sealing range Ø 9-23 mm



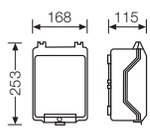


KG 9002

IP 55 ESM | IP 65 | PS | RAL 7035 | 19 / 21 Wall 21 / 19

Degree of protection: IP 55 (ESM), IP 65 (see cable entry systems LES)

- for installation equipment on DIN rails or mounting plates
- max. installation depth with built-in mounting plate 95 mm, with built-in DIN rail 89 mm
- with transparent hinged lid
- fastener for tool operation
- sealable
- cable entry via metric knockouts
- included cable entry:
  2 ESM 25, sealing range Ø 9-17 mm and
  1 ESM 32, sealing range Ø 9-23 mm



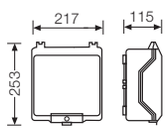


KG 9003

IP 55 ESM | IP 65 | PS | RAL 7035 | 20 / 21 Wall 21 / 20

Degree of protection: IP 55 (ESM), IP 65 (see cable entry systems LES)

- for installation equipment on DIN rails or mounting plates
- max. installation depth with built-in mounting plate 95 mm, with built-in DIN rail 89 mm
- with transparent hinged lid
- fastener for tool operation
- sealable
- cable entry via metric knockouts
- included cable entry:
  2 ESM 25, sealing range Ø 9-17 mm and
  1 ESM 32, sealing range Ø 9-23 mm



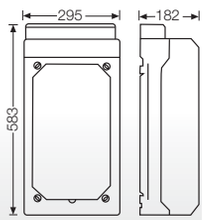


KV 9331

IP 65 | PS | RAL 7035 | 5 / Wall / 5

Degree of protection: IP 65

- for installation of devices via installed mounting plate
- max. installation depth: 160 mm
- with transparent lid
- fastener for tool operation
- sealable
- with cable entry cover
- cable entry via integrated elastic membranes



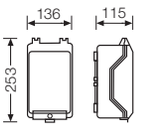


KG 9001 IN



Degree of protection: IP 55 (ESM), IP 65
(see cable entry systems LES)

- for installation equipment on DIN rails or mounting plates
- max. installation depth with built-in mounting plate 95 mm, with built-in DIN rail 89 mm
- with opaque hinged lid
- fastener for tool operation
- sealable
- cable entry via metric knockouts
- included cable entry:
  2 ESM 25, sealing range Ø 9-17 mm and
  1 ESM 32, sealing range Ø 9-23 mm



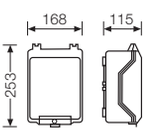


KG 9002 IN



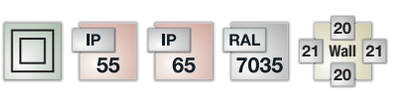
Degree of protection: IP 55 (ESM), IP 65
(see cable entry systems LES)

- for installation equipment on DIN rails or mounting plates
- max. installation depth with built-in mounting plate 95 mm, with built-in DIN rail 89 mm
- with opaque hinged lid
- fastener for tool operation
- sealable
- cable entry via metric knockouts
- included cable entry:
  2 ESM 25, sealing range Ø 9-17 mm and
  1 ESM 32, sealing range Ø 9-23 mm



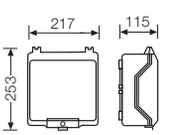


KG 9003 IN



Degree of protection: IP 55 (ESM), IP 65
(see cable entry systems LES)

- for installation equipment on DIN rails or mounting plates
- max. installation depth with built-in mounting plate 95 mm, with built-in DIN rail 89 mm
- with opaque hinged lid
- fastener for tool operation
- sealable
- cable entry via metric knockouts
- included cable entry:
  2 ESM 25, sealing range Ø 9-17 mm and
  1 ESM 32, sealing range Ø 9-23 mm









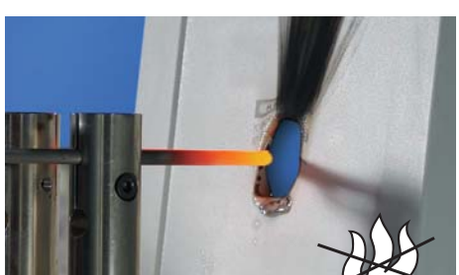
- Cable entry with integrated elastic sealing membranes



- Sealable



- Screws made of stainless steel V2A.



- Burning behaviour:
- Glow wire test according to IEC 60 695-2-11: 750 °C, flame-retardant

KV Small-type Distribution Boards
KWH Meter boxes
Cable entry via integrated elastic membranes

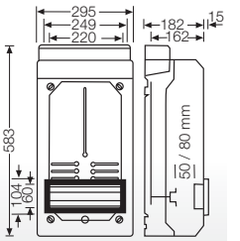


KV 9337

IP 65 | PS | RAL 7035 | 5 Wall 5

Use in areas under control or reponsibility of local power supply companies degree of protection: IP 65

- with KWH meter support and meter fastening screws for meters with three-point mounting
- max. installation depth: 162 mm
- with hinged flap and protection cover for 12 modules (12 x 18 mm)
- with DIN-rail belonging to it
- with transparent lid
- fasteners for tool operation
- sealable
- with cable entry cover
- cable entry via integrated elastic membranes



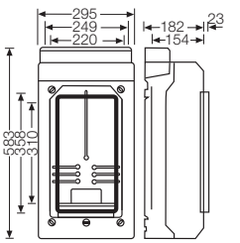


KV 9338

IP 54 | PS | RAL 7035 | 5 Wall 5

Use in areas under control or reponsibility of local power supply companies degree of protection: IP 54

- with KWH meter support and meter fastening screws for meters with three-point mounting
- max. installation depth: 154 mm
- with KWH meter window flap, sealable
- for maximum KWH meters, time switches etc.
- standard opening dimensions 140 x 310 mm
- for tool or manual operation
- for padlock (clip Ø max. 6 mm)
- with additional DIN rail
- length of DIN rail 172 mm
- with transparent lid
- fasteners for tool operation
- sealable
- with cable entry cover
- cable entry via integrated elastic membranes



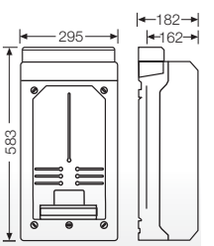


KV 9339

IP 65 | PS | RAL 7035 | 5 Wall 5

Use in areas under control or reponsibility of local power supply companies degree of protection: IP 65

- with KWH meter support and meter fastening screws for meters with three-point mounting
- max. installation depth: 162 mm
- with additional DIN rail
- length of DIN rail 172 mm
- with transparent lid
- fasteners for tool operation
- sealable
- with cable entry cover
- cable entry via integrated elastic membranes





Press-in connecting glands	228
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Labelling system	233
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Blanking strip	234



EVS 16

Press-in connecting glands

IP 54 | TPE | RAL 7035

- degree of protection: IP 54
- for lateral box assembly of KV and KG boxes
- cable feed-through for Ø up to 19 mm
- for bore-hole Pg 16, Ø 23 mm

length	15 mm



AVS 16

Threaded connecting glands

IP 65 | PA | RAL 7035

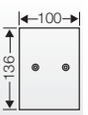
- degree of protection: IP 65
- for lateral box assembly of KV and KG boxes
- cable feed-through for Ø up to 15 mm
- for bore-hole Pg 16, Ø 23 mm

length	21,5 mm

KG MP 01

Mounting plate for KG 9001

- material laminated paper, coated
- material thickness 4 mm
- with fixing screws

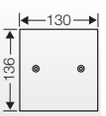




KG MP 02

Mounting plate for KG 9002

- material laminated paper, coated
- material thickness 4 mm
- with fixing screws

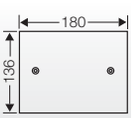




KG MP 03

Mounting plate for KG 9003

- material laminated paper, coated
- material thickness 4 mm
- with fixing screws





Variable installation depths by using supports in different heights



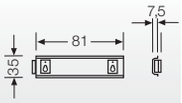
Cable retention system



KG TS 01

DIN rail for KG 9001

- in accordance with DIN EN 60715
- for equipment or terminals with clip-on mounting
- with fixing screws

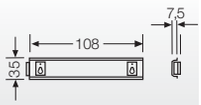




KG TS 02

DIN rail for KG 9002

- in accordance with DIN EN 60715
- for equipment or terminals with clip-on mounting
- with fixing screws





KG TS 03

DIN rail for KG 9003

- in accordance with DIN EN 60715
- for equipment or terminals with clip-on mounting
- with fixing screws





KHR 01

Cable retention
for cable diameter 6.5 - 14 mm

- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 6.5 - 10 mm
- 30 pieces for cable diameter 10 - 14 mm



KHR 02

Cable retention
for cable diameter 10 - 16 mm

- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 10 - 14 mm
- 30 pieces for cable diameter 13 - 16 mm



KV FC 03

PE and N terminal
per PE/N 1 x 25 mm², 4 x 4 mm² Cu

- for small-type distribution boards with 3 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	75 A



KV FC 04

PE and N terminal
per PE/N 2 x 25 mm², 4 x 4 mm², Cu

- for small-type distribution boards with 4.5 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	75 A



KV FC 06

PE and N terminal
per PE/N 2 x 25 mm², 4 x 4 mm², Cu

- for small-type distribution boards with 6 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	75 A



KV FC 09

PE and N terminal
PE/N 2 x 25 mm², 8 x 4 mm², Cu each

- for small-type distribution boards with 9 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	75 A



KV FC 12

PE and N terminal
per PE/N 3 x 25 mm², 12 x 4 mm², Cu

- for small-type distribution boards with 12 modules and KV empty boxes
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	75 A



KV FC 18

PE and N terminal
per PE/N 4 x 25 mm², 16 x 4 mm², Cu

- for small-type distribution boards with 18 modules per row
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	75 A



KV FC 24

PE and N terminal
per PE/N 6 x 25 mm², 24 x 4 mm², Cu

- for small-type distribution boards with 12 modules and KV empty boxes
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	75 A



KV FC 36

PE and N terminal
per PE/N 8 x 25 mm², 32 x 4 mm², Cu

- for small-type distribution boards with 18 modules per row
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- N separable, up to 4 different potentials

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	75 A



KV NP 16

PE and N terminal
per PE/N 3 x 25 mm², 12 x 4 mm², Cu

- for retrofitting in KV-Small-type distribution boards KV 0112 / KV 0124 / KV 0136 / KV 0212 / KV 0224 / KV 0236
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- N separable, for up to 2 different potentials

rated insulation voltage	U_i = 400 V a.c.
current carrying capacity	75 A

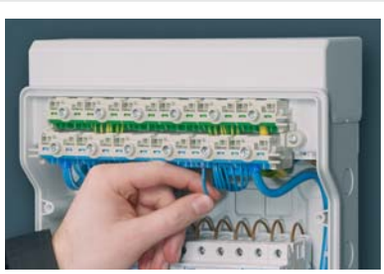


KV NP 32

PE and N terminal

- for retrofitting in KV-Small-type distribution boards KV 0112 / KV 0124 / KV 0136 / KV 0212 / KV 0224 / KV 0236
- per PE/N number x cross section 32 x 16 mm² Cu, screw-type terminal

rated insulation voltage	U_i = 400 V a.c.



FIXCONNECT® plug-in terminal technology



KG PN 01

PE and N terminal

- for KG 9001
- per PE/N number x cross section 3 x 25 mm², 3 x 4 mm² Cu, screw-type terminal

rated insulation voltage	U_i = 400 V a.c.



KG PN 02

PE and N terminal

- for KG 9002
- PE+N x cross section 3 x 25 mm², 5 x 4 mm² Cu, screw-type terminal

rated insulation voltage	U_i = 400 V a.c.

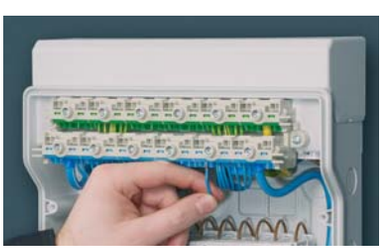


KG PN 03

PE and N terminal

- for KG 9003
- per PE/N number x cross section 4 x 25 mm², 7 x 4 mm² Cu, screw-type terminal

rated insulation voltage	U_i = 400 V a.c.



FIXCONNECT® terminal technology for PE and N



Labeling option of FIXCONNECT® terminal



Compact user friendly solution, optically optimized by cable entry cover



FC BS 5

FIXCONNECT® **labelling system set with 5 pieces**

- labelling system for FIXCONNECT® plug-in terminals, not for terminals 2x25 / 4x4 mm²
- for attaching of labelling strips or marking with felt tip pen



FC BS 6

FIXCONNECT® **labelling system set with 5 pieces**

- labelling system for FIXCONNECT® plug-in terminals, for terminals 2x25 / 4x4 mm²
- for attaching of labelling strips or marking with felt tip pen

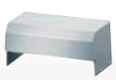


KV EB 03

Cable entry cover

RAL 7035

- for small-type distribution boards with 3 modules
- for replacement purposes (1 cable entry cover included with supply of the board)



KV EB 04

Cable entry cover

RAL 7035

- for small-type distribution boards with 4.5 modules
- for replacement purposes (1 cable entry cover included with supply of the board)



KV EB 06

Cable entry cover

RAL 7035

- for small-type distribution boards with 6 modules
- for replacement purposes (1 cable entry cover included with supply of the board)



KV EB 09

Cable entry cover

RAL 7035

- for small-type distribution boards with 9 modules
- and for KV 9325, KV 9363
- for replacement purposes (1 cable entry cover included with supply of the board)



KV EB 12

Cable entry cover

RAL 7035

- for small-type distribution boards with 12 modules per row
- only order additionally if the cable entry should be covered at the top and bottom (1 cable entry cover included with supply of the board)



KV EB 18

Cable entry cover

RAL 7035

- for small-type distribution boards with 18 modules per row
- only order additionally if the cable entry should be covered at the top and bottom (1 cable entry cover included with supply of the board)



KV EB 26

Cable entry cover

RAL 7035

- for small-type distribution boards KV 0112, KV 0212, KV 0124, KV 0224, KV 0136, KV 0236
- only order additionally if the cable entry should be covered at the top and bottom (1 cable entry cover included with supply of the board)



KV ES 1

locking device
for small-type distribution boards 12 - 54 modules

- profile cylinder with 2 keys





KV ES 2

Spare key

- for door lock KV ES 1 or KV ES 3
- 2 pieces



KV ES 3

Locking device
for small-type distribution boards 3 - 9 modules

- and for KV 9325, KV 9363
- profile cylinder with 2 keys





KV PL 2

Facility for sealing
for small-type distribution boards 12 - 54 modules

- for sealing the top and bottom parts of the box (doors can be sealed without accessories)



KV PL 3

Facility for sealing
for small-type distribution boards 3 - 9 modules

- and for KV 9325, KV 9363
- for sealing the top and bottom parts of the box (doors can be sealed without accessories)



AS 12

Blanking strip 12 modules

RAL 7035

- 12 x 18 mm, divisible every 9 mm
- for the covering of spare equipment openings, for material thickness up to 3 mm



AS 18

Blanking strip 18 modules

RAL 7035

- 18 X 18 mm, divisible every 9 mm
- for the covering of spare equipment openings, for material thickness up to 3 mm



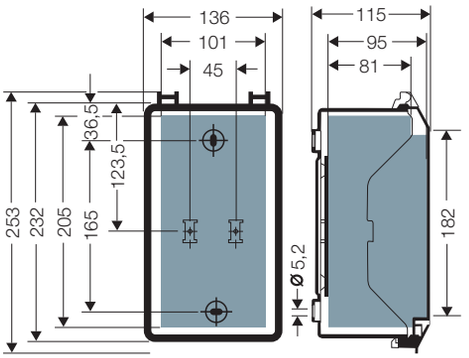
Sealing of top and bottom part



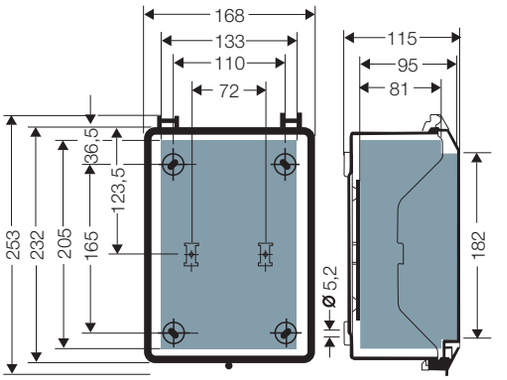
Blanking strips for unused DIN rail openings



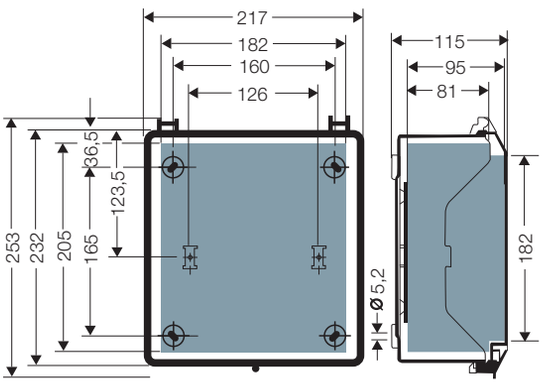
Detail dimensions in mm	236
Mounting dimensions in mm	237
Box assembly	238
Terminals	239 - 240
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Table: Permissible power dissipation for distribution boards	241
Operating and ambient conditions	242



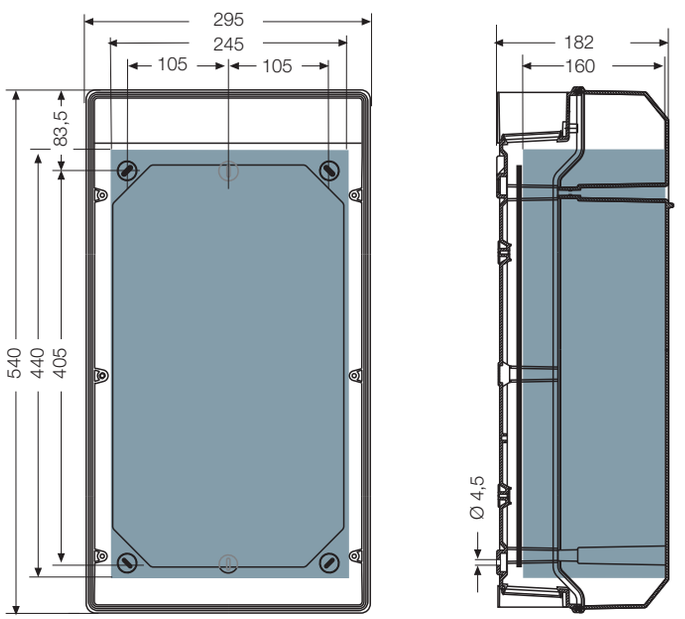
KG 9001



KG 9002



KG 9003

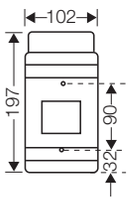


KV 9331

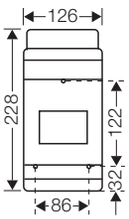
usable installation space
which mounted cable glands

Wall mounting for screws up to 4.5 mm diameter.

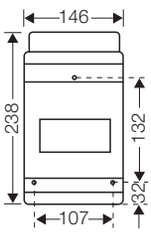
Circuit breaker boxes
3 modules



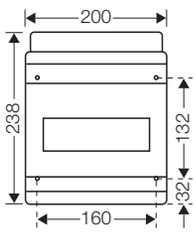
Circuit breaker boxes
4.5 modules



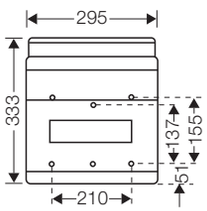
Circuit breaker boxes
6 modules



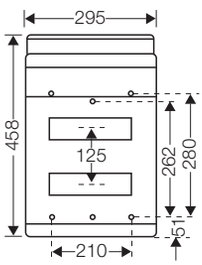
Circuit breaker boxes
9 modules



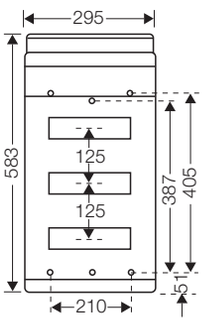
Circuit breaker boxes
12 modules



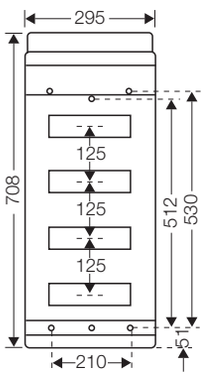
Circuit breaker boxes
2 x 12 modules



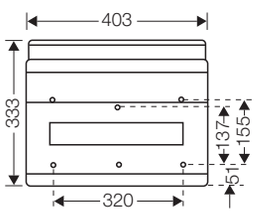
Circuit breaker boxes
3 x 12 modules



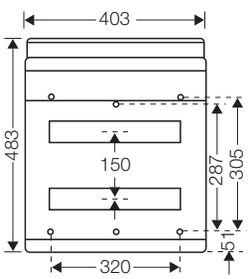
Circuit breaker boxes
4 x 12 modules



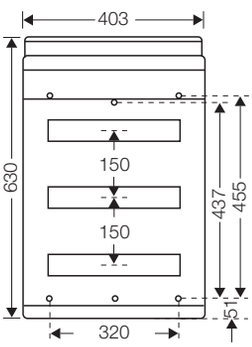
Circuit breaker boxes
1 x 18 modules



Circuit breaker boxes
2 x 18 modules

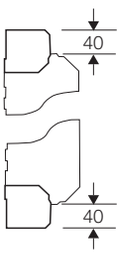


Circuit breaker boxes
3 x 18 modules





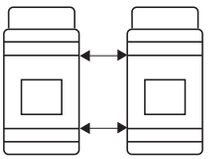
By turning the rail by 180 °, the assembly depth under the protection cover can be increased to 59 mm. No additional components are required.



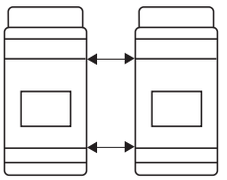
Cable entry cover for KV Circuit breaker boxes IP 54 and IP 65 with 12-54 modules mounted on top and the bottom.

KV Circuit breaker boxes can be assembled laterally as shown below:

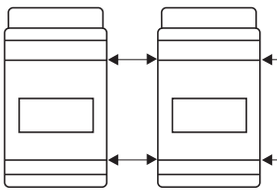
- in degree of protection IP 65 with threaded connecting glands AVS 16
- in degree of protection IP 54 with press-in connecting glands EVS 16



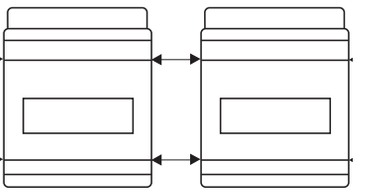
KV Circuit breaker boxes
3 modules



KV Circuit breaker boxes
4.5 modules



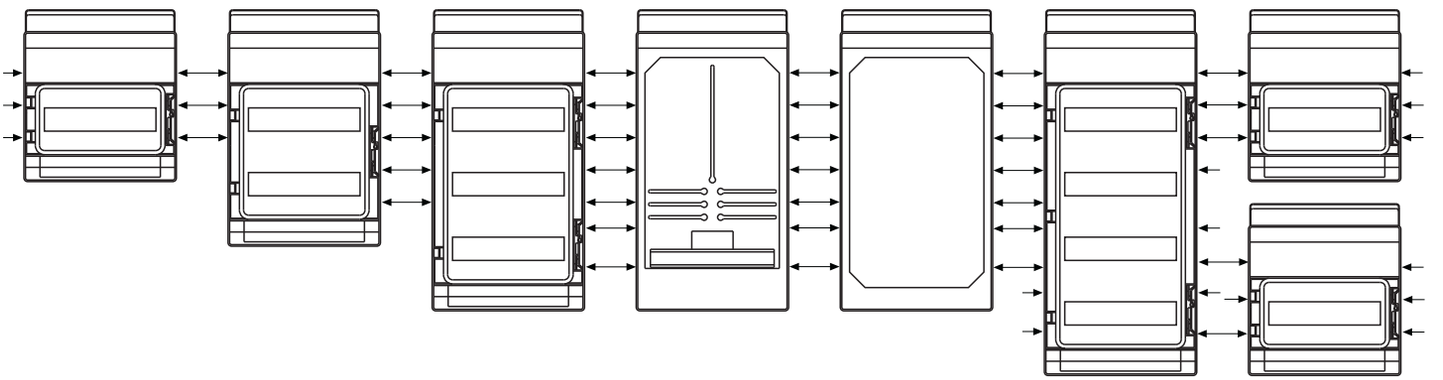
KV Circuit breaker boxes
6 modules



KV Circuit breaker boxes
9 modules

KV Circuit breaker / Meter and Empty boxes can be assembled laterally as shown below:

- in degree of protection IP 65 with threaded connecting glands AVS 16
- in degree of protection IP 54 with press-in connecting glands EVS 16



KV circuit
breaker boxes
12 modules

KV circuit
breaker boxes
2x12 modules,
KV 9220,
KV 9220 M

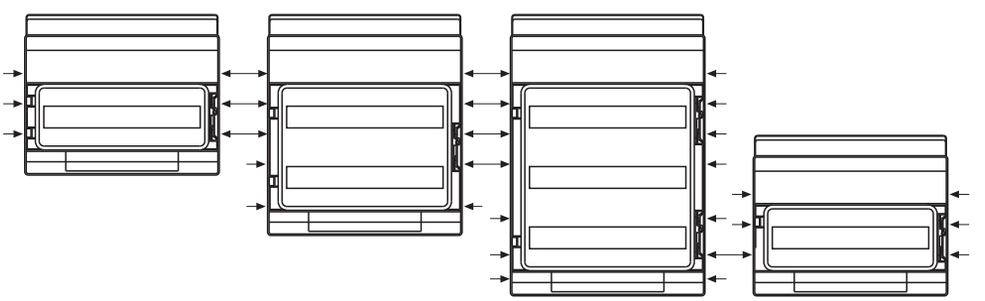
KV circuit
breaker boxes
3x12 modules,
KV 9330,
KV 9330 M

KWH Meter
boxes
KV 9338
KV 9337

KV empty
box
4x12 modules
KV 9440,
KV 9440 M

KV empty
box
4x12 modules
KV 9440
KV 9440 M

KV circuit
breaker boxes
12 modules

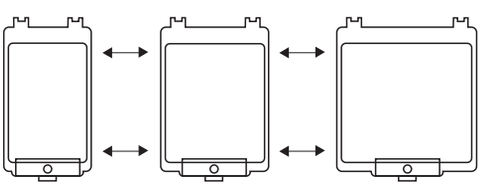


KV circuit
breaker boxes
18 modules

KV circuit
breaker boxes
2 x 18 modules,
KV 9230,
KV 9230 M

KV circuit
breaker boxes
3 x 18 modules,
KV 9350
KV 9350 M

KV circuit
breaker boxes
18 modules



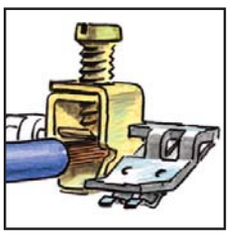
KG 9001

KG 9002

KG 9003

PE and N FIXCONNECT® terminal

Rated connecting capacity of PE and N terminals for copper conductors

Clamping unit	Corresponding cross-sections/copper			
	max. number	from - to max.	max. number	from - to max.
Screw-type terminal 25 mm²				
	1	25 mm², s	1	25 mm², f
	1	16 mm², s	1	16 mm², f
	1	10 mm², sol	1	10 mm², f
	3	6 mm², sol } Tested as connecting terminal for several conductors of the same cross-sections for using in one circuit	1	6 mm², f
	3	4 mm², sol	1	4 mm², f
	4	2.5 mm², sol	1	2.5 mm², f
	4	1.5 mm², sol	1	1.5 mm², f
Plug-in terminal 4 mm²	1	1.5 - 4 mm², sol	1	1.5 - 4 mm², f Without end ferrule; clamping unit has to be opened with a tool when conductor is inserted
				

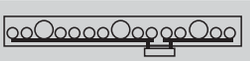
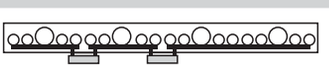
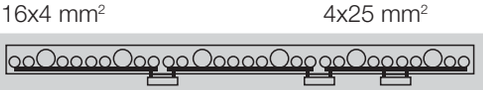
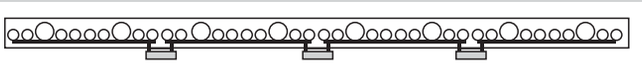
Current carrying capacity of the connecting device: 75 A
All terminals are secured against self loosening.

Terminal equipment and number of conductors to be connected

PE terminal for copper conductors

Number of modules	PE terminal up to 4 mm²	up to 25 mm²
3	 4x4 mm²	1x25 mm²
4.5 6	 4x4 mm²	2x25 mm²
9	 8x4 mm²	2x25 mm²
12	 12x4 mm²	2x25 mm²
18	 16x4 mm²	4x25 mm²
24 36 (3-row) 48	 24x4 mm²	6x25 mm²
36 (2-row) 54	 32x4 mm²	8x25 mm²

N terminal for copper conductors

Number of modules	N terminal up to 4 mm²	up to 25 mm²	plug-in jumper
3	 4x4 mm²	1x25 mm²	
4.5 6	 4x4 mm²	2x25 mm²	
9	 8x4 mm²	2x25 mm²	
12	 12x4 mm²	2x25 mm²	
18	 16x4 mm²	4x25 mm²	
24 36 (3-row) 48	 24x4 mm²	6x25 mm²	
36 (2-row) 54	 32x4 mm²	8x25 mm²	

KV circuit breaker boxes comply with the following standards and regulations:

- DIN EN 60670-24: Particular requirements for enclosures for housing protective devices and other power dissipating electrical equipment
- DIN 43880
  Built-in equipment for electrical installations; overall dimensions and related mounting dimensions
- IEC 60 999, Connecting devices
  Safety requirements forscrew-type and screwless-type clamping units for electrical copper conductors
- EN 60 529 / DIN VDE 0470 Part 1
  Degrees of protection provided by enclosures (IP-Code)

Table 4: Permissible power dissipation for distribution boards

Table 4	Permissible power dissipation P_{zul} for distribution boards for wall-mounting at overtemperature ΔT				
size	10 K	15 K	20 K	25 K	30 K
1-row	5.5 W	9.0 W	12.5 W	16.5 W	21.0 W
2-row	6.5 W	11.0 W	15.0 W	20.0 W	25.0 W
3-row	7.0 W	12.0 W	17.0 W	22.0 W	28.0 W
4-row	8.5 W	14.5 W	20.5 W	27.0 W	34.0 W

	KV Small-type distribution boards PS polystyrene			KV PC Small-type distribution boards PC polycarbonate	
	KV Small-type distribution boards and KWH Meter boxes	**Empty boxes**	**Cable entry ESM ..., EVS 16**	**KV PC Small-type distribution boards**	**Threaded connecting glands AVS 16**
Application area	**Degree of protection IP 54/65:** Suitable for indoor installation and outdoor installation, protected against weather influences: However, pay attention to the climatic effects on the installed equipment , for example, high or low ambient temperatures or formation of condensed water see technical information			The enclosures are suitable for outdoor installation - harsh environment and / or outdoor. The material is examined for UV resistance by the institute for plastics and thereby suitable for the outdoor installation during UV effect. However the climatic influences and effects on the equipment are to be considered.	
Ambient temperature					
- Average value over 24 hours	+ 35 °C	–	+ 35 °C	+ 35 °C	+ 55 °C
- Maximum value	+ 40 °C	+ 60 °C	+ 40 °C	+ 40 °C	+ 70 °C
- Minimum value	– 5 °C	– 25 °C	– 25 °C	– 5 °C	– 40 °C
Relative humidity	50% at 40 °C	–	-	–	–
- short-time	100% at 25 °C	–	-	–	–
Fire protection in the case of internal faults	Demands placed on electrical devices from standards and laws: Minimum requirements - Glow wire test in accordance with IEC 60 695-2-11: - 650 °C for boxes and cable glands - 850 °C for parts of insulating material necessary to retain current carrying parts in position				
Burning behaviour					
- Glow wire test IEC 60 695-2-11	750 °C	750 °C	750 °C	960 °C	750 °C
- UL Subject 94	V-2 flame-retardant self-extinguishing	V-2 flame-retardant self-extinguishing	– flame-retardant self-extinguishing	V-2 flame-retardant self-extinguishing	V-2 flame-retardant self-extinguishing
Degree of protection against mechanical load	IK08 (5 Joule)	IK08 (5 Joule)	–	IK08 (5 Joule)	–
Toxic behaviour	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free

“Halogen-free” in accordance with IEC 60754-2 “Common test methods for cables - Determination of the amount of halogen acid gas”.

For material properties see technical data.



Design fast, simply, more clever
www.ENYGUIDE.eu

ENYSTAR Distribution Boards up to 250 A

with door, in accordance with IEC 61439-3

- **combinable enclosure system**
- **degree of protection IP 66**
- **made from polycarbonate**
- **protection class II,** ⧈



Assembly instruction
ENYSTAR Distribution Boards
up to 250 A
according to IEC 61439-3
please request or download at
www.hensel-electric.de/en ->
Downloads

IEC 61439-3:
Interface characteristics of an assembly and
changes facing manufacturer's of an assembly (Panel builder) 246 - 247

System description / System design 248 - 253

Requirements concerning distribution boads intended to be operated
by ordinary persons (DBO) according to IEC 61439-3 254

Overview product range 256 - 257

Empty enclosures
Door locking with hand-operation 258 - 263
Door locking with tool-operation 264 - 269

Circuit breaker boxes
for the installation of DIN rail equipment **up to 63 A** according to DIN 43880,
with PE- and N terminals, 9 up to 54 modules 270 - 273
without PE- and N terminals, 12 up to 54 modules 274 - 278

Circuit breaker boxes
for the installation of DIN rail equipment **up to100 A** according to DIN 43880,
without PE- and N terminals, 12 up to 54 modules, 279 - 280
terminal box 280

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Techical details 301 - 316

Info **Further technical information can be found on the Internet**
www.hensel-electric.de -> Products

ENYSTAR®

ENYSTAR

Standard-conforming rating of distribution boards intended to be operated by ordinary persons (DBO) according to IEC 61439-3

The new EN 61439 - the standard for the construction of switchgear assemblies - brings changes that affect the planning of a switchgear assembly. In addition, new tasks and responsibilities are awaiting the manufacturer of a switchgear assembly.

Decisive for the optimal functioning of a switchgear assembly under operating conditions is the correct rating of the interface characteristics of the assembly. For this purpose, the assembly is considered as **BLACK-BOX** with four interface characteristics which shall ensure compatibility with the ratings of the circuits to which it is connected and the installation conditions and shall be declared by the assembly manufacturer using the criteria identified below.

Assembly considered as BLACK BOX with the four interface characteristics according to IEC 61439-3



Installation and ambient conditions

- For protected outdoor installation
- Degree of protection IP 66
- Combinable enclosure system, extendable in all directions
- 4 enclosure sizes in grid of 90 mm
- EMC compliant busbar system
- Wall-mounting



Operation and maintainance

- Distribution board up to 250 A
- Protection class II up to rated current of 250 A
- Flexible through standardised and tested kits
- Spacious connection areas
- Fulfill the requirements for operation by ordinary persons (DBO)

BLACK BOX
with 4 interfaces



ENYSTAR
Distribution Board

Combinable enclosure system, insulation-enclosed, total insulated, degree of protection IP 66, **for the assembly of ENYSTAR distribution boards up to 250 A intended to be operated by ordinary persons (DBO) in accordance with IEC 61439-3**

The requirements for all installed electrical functions within the assembly have been proved compliance with the applicable requirements of IEC 61439-3.

I_{nc} and RDF must be specified in the documentation.



Connection to the electrical network

- Electric circuit / final circuit
- Circuit-breaker up to 250 A
- Switch disconnector up to 250 A
- Fuse switch disconnector up to 250 A
- Bus-mounted fuse base up to 63 A
- Cable connection from top / from bottom
- Connection: conductors from copper / aluminum
- Optional connection of CEE sockets according to EN 60309 and sockets with earthing contact according to DIN 49440-1



Circuits and consumers

- Rated voltage U_N = 690 V a.c. / 1000 V d.c.
- Rated current I_N up to 250 A
- Circuit-breaker up to 250 A
- Switch disconnector up to 250 A
- Fuse switch disconnector up to 250 A
- 5-conductor systems
- Cable connection from top / from bottom

Changes facing the manufacturer of a switchgear assembly (Panel builder)

IEC 61439 - the standard for the assembly of switchgear assemblies and distribution boards - determines the safety requirements for electrical equipment for the compliance of protection objectives for people and facilities.
Requirements for products are more clearly defined and a new terminology is introduced.

BLACK BOX Specification

The designer specifies a switchgear assembly by defining the interface parameters as BLACK BOX.
Based on these interface specifications the manufacturer of a switchgear assembly has to rate and define the structure of the switchgear assembly.

Product presentation in media changed significantly

The standard has an effect as well on the documentation of products. Additional information, such as the rated current of circuits and the number of circuits, are now listed for each product as they are now required by designers and manufacturers for the construction of switchgear assemblies.

The international catalogue presents ENYSTAR empty and circuit breaker boxes.



Further enclosures with electrical functions for the assembly of ENYSTAR distribution boards up to 250 A, for example, with built-in busbars, circuit breakers, etc., see at: www.hensel-electric.de

For design and assembly according IEC 61439 / EN 61439 with ENYSTAR Distribution Boards up to 250 A please refer to the guide at www.hensel-elctric.de/61439.

The guide to design and assemble in accordance with EN 61439 for ENYSTAR distribution boards up to 250 A and Mi Power distribution boards up to 630 A can be downloaded:

www.hensel-electric.de/61439



Combinable enclosure system with doors

Distribution boards up to 250 A with door

combinable enclosure system
insulation-enclosed, degree of protection IP 66, made from polycarbonate,
for the assembly of distribution boards up to 250 A,
intended to be operated by ordinary persons in accordance with IEC 61439-3

Distribution Boards up to 250 A with Door

- for indoor and protected outdoor installation
- dust-proof and protected against water (IP 66)
- protection class II ⧈
- colour: grey, RAL 7035



Easy operation of the devices behind a door with protection against accidential contact.

Doors

- all enclosure sizes with door
- transparent and opaque
- door hinge changeable
- sealable
- locking facilities: lockable, door fasteners for tool and hand operation
- operation of the devices behind the door protected with covers
- no overhangig handles



Quick assembly

Quick Assembly

- closed or open enclosure walls,
  which can fast and easily be closed with closing plate sets
- integrated gaskets
- safe connectors

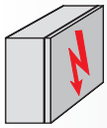


Multikey for door locking systems

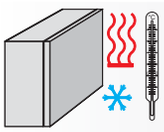
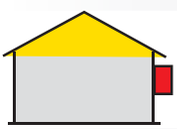
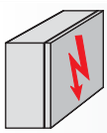
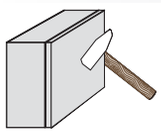
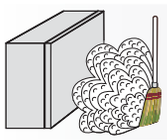
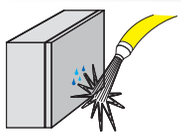
Multikey

Besides the standard locking system for tool-operation with slot screwdriver ENYSTAR doors can be operated as well with triangle 8 mm, square lock 8mm and double-bit. All four locking systems are operated by a Mulitkey.

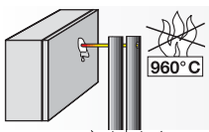
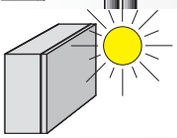
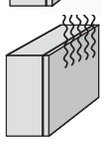
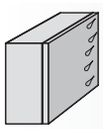
Electrical parameters

 **Electrical parameters**	rated voltage: max. 690 V a.c. rated insulation voltage: 690 V a.c., 1000 V d.c. rated current: max. 250 A rated short-time withstand current: max. 13 kA The design values are possibly reduced by the installed equipment technology, please refer to technical data of the product or index technical data.

System properties

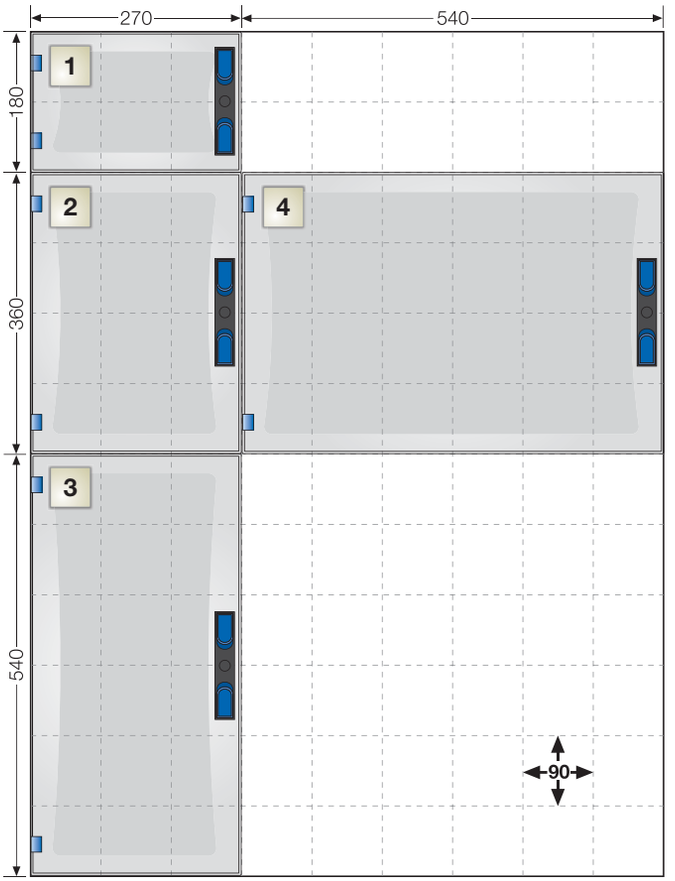
 **Environmental conditions**	ambient temperature: ■ for distribution boards in accordance with IEC 61439-3: -5 °C up to 35 °C, max. + 40 °C Relative humidity: 50% at 40 °C, 100% at 25 °C ■ for empty enclosures: - 25°C up to + 70 °C The ambient temperature for distribution boards is reduced by the installed equipment technology!
 **Application area**	**The enclosures are suitable for the protected outdoor installation and harsh environment** Hint: the climatic influences and effects on the equipment are to be considered, see technical details/operating and ambient conditions
 **Insulation**	insulated enclosures (protection class II) ⧈
 **Impact strength**	degree of protection against mechanical load IK 08 (5 Joule) in accordance with IEC 62262
 **Protection against foreign solid objects and direct contact**	dust-proof degree of protection IP **6**6
 **Protection against ingress of water with harmful effects**	protected against water degree of protection IP 6**6**

Material: Polycarbonate

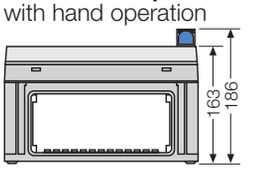
 **Burning behaviour**	glow wire test 960 °C in accordance with IEC 60695-2-11 flame-retardant, self-extinguishing
 **UV resistance**	UV resistance according to IEC 61439-1 the material is examined for UV resistance
 **Chemical resistance**	resistance against acid 10% and alkaline 10%, petrol and mineral oil
 **Toxic behavour**	silicone- and halogen-free
 **Corrosion resistance**	resistant to weather influences such as humidity, temperature, wind

Distribution board with door

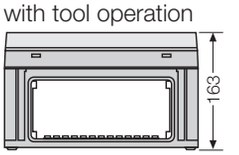
- combinable
- modular structure of enclosures in grid of 90 mm
- 4 enclosure sizes: 270 x 180 mm, 270 x 360 mm, 270 x 540 mm and 540 x 360 mm
- for the assembly of distribution boards up to 250 A
- all enclosures can also be used as single enclosures



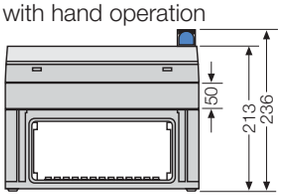
Enclosure depth
with hand operation



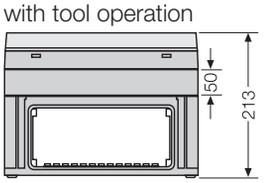
with tool operation



Extension frame
for extending installation depths by 50 mm
with hand operation



with tool operation



Combinable enclosures with door and closing plates

- 4 box sizes: 276 x 186 mm, 276 x 366 mm, 276 x 546 mm and 546 x 366 mm



Empty enclosures and circuit breaker boxes additionally with closing plate sets for closing enclosure walls



Enclosure walls closed via closing plates



Flanges to be ordered separately

Assignment of box walls

The assignment of box walls is effected via wall symbols that are assigned to each product. The individual figures 2 give an indication, which wall is concerned.

All box walls are listed in the fold-out of the coverpages.



ENYSTAR

Distribution boards

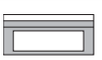
Box walls



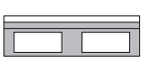
Wall 1 (180 mm)
Wall opening:
100 x 80 mm



Wall 2 (270 mm)
Wall opening:
190 x 80 mm



Wall 3 (360 mm)
Wall opening:
280 x 80 mm



Wall 4 (540 mm)
Wall opening:
2 x 190 x 80 mm

Combinable distribution boards with door





Empty enclosures
door locking
with **hand operation**

Operation and access also by unskilled persons



- Hand-operated locking facilities in areas,where electrotechnical unskilled persons operate equipment





Empty enclosures
door locking
with **tool operation**

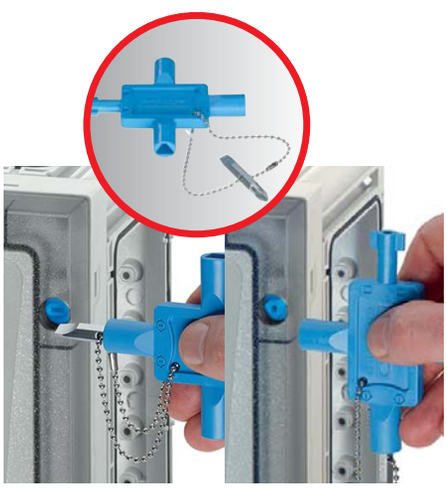
Access and operation only by skilled persons



- Locking option with key prevents un-authorized access



Circuit breaker boxes



- Multikey for door locking systems: Standard locking system for tool-operation with slot screwdriver and triangle 8 mm, optional square lock 8 mm and double-bit.

Combinable enclosures with door and closing plates

Empty enclosures and circuit breaker boxes with closing plates

Flanges to be ordered separately





Can be combined and extended in all directions

Because of the increasing requirements, flexibility is essential in the electrial installation.

ENYSTAR enclosures can be combined and arranged freely in order to adapt the system flexibly to the individual requirements in site: Combination next to each other or one above the other.

Large doors for all box sizes allow a simple accessibility of the electrical functions.



Combination of enclosures in vertical direction.



Combination of enclosures in horizontal direction.



Distribution boards intended to be operated by ordinary persons

Example 1:
Distribution board with
72 modules (6 x 12 x 18 mm)
built-up of 2 x FP 1318
with closing plates

Example 2:
Distribution board with 125 A feeding,
36 modules (3 x 12 x 18 mm) and
a terminal box for PE and N



1



2



ENYSTAR®

Connection Box

The ENYSTAR Connection Box allows a simple and fast installation of devices that must be operated externally. Such as plug devices, pushbuttons, switches or also touch panels.

The new Connection Box is installed via safe plug connectors.

The ENYSTAR Connection Box is available in different designs and standard equipments.









Distribution boards up to 250 A according to IEC 61439-3 „Distribution boards indended to be operated by ordinary persons“

Distribution boards are usually used in working place proximity. Their application is various.

Here the demands and requirements that result from the installation site must be adhered to.

General requirements concerning distribution boards

1. **Clear separation between operation area and distribution area**
   For areas in distribution boards to which unskilled persons have access, standards require special protective measures:
   - Life parts are to be protected against accidental contact by a cover.
   - Devices, which may be operated only by an electrical skilled person, are to be arranged in a separate area, which is to be opened only with tool.
2. **Fast and safe operating of the intended devices, e.g. series built-in equipment and switching devices**
3. **No removable covers or parts** so that electrotechnical unskilled persons can easyly operate.

Additional specific requirements when used in commercial and industrial applications:

1. **High degree of protection IP 66:** dust-proof and waterproof
2. **Robust material for use in rough environments:** high-quality thermoplastic material for high mechanical loads.
3. **Corrosion resistance:** Material resistant to corrosion by atmospheric humidity or industrial processes.

Modular distribution boards for special requirements in commercial and industrial applications ...

- Total insulated enclosures, protection class II ⧈
- High degree of protection IP 66: dust-proof and water-proof
- Corrosion-resistant enclosures by high-quality thermoplastic material
- High mechanical strength IK 08 for heavy duty usage in commercial and industrial applications

... and with clearly separated functional areas!

- Modular design for clear separation of access and operation areas for electrical skilled persons and unskilled persons.
- Large, transparent doors for a quick control and convenient operation of the built-in equipment
- Fast opening and closing of the doors in a single operation
- At any time an expandable, modular system





Operation
also by electrotechnical unskilled persons



Requirements in accordance with IEC 61439-3:

1. Only installation equipment, like series built-in equipment, fuses up to 63 A, circuit-breakers and IT-components are permitted. For the access a tool-operated door locking facility is **NOT** necessary.
2. Other switching devices must be installed behind separate lids or doors, which can only be opened using a tool: **protection against direct contact with hazardous live parts IP XXC**.

Access and operation
only by electrical skilled persons



To the following areas **only an electrical skilled person** may have access:

- feeding-in
- back-up fuse
- outgoing terminals.

Therefore access is possible **only with appropriate tools.** The access can be prevented by optionally lockable doors. Electrotechnical unskilled persons have no access here.





- Device mounting via DIN rails



- Device mounting via mounting plates



- Individual device installation into covers



- Hand-operated doors in areas to which unskilled persons have access for operating devices



- Tool-operated doors in areas to which only an electrical skilled person may have access



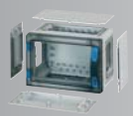
- Facilities for earth connection according to British Standard

Empty enclosures
hand-operated door lockings

with transparant doors



FP 0140
built-in dimensions
216x126x140 mm



FP 0141
built-in dimensions
216x126x140 mm
with closing plates



FP 0240
built-in dimensions
216x306x140 mm



FP 0241
built-in dimensions
216x306x140 mm
with closing plates



FP 0340
built-in dimensions
216x486x140 mm



FP 0341
built-in dimensions
216x486x140 mm
with closing plates



FP 0440
built-in dimensions
486x306x140 mm



FP 0441
built-in dimensions
486x306x140 mm
with closing plates



FP 0461
built-in dimensions
306x486x140 mm
with closing plates

with opaque doors



FP 0150
built-in dimensions
216x126x140 mm



FP 0151
built-in dimensions
216x126x140 mm
with closing plates



FP 0250
built-in dimensions
216x306x140 mm



FP 0251
built-in dimensions
216x306x140 mm
with closing plates



FP 0350
built-in dimensions
216x486x140 mm



FP 0351
built-in dimensions
216x486x140 mm
with closing plates



FP 0450
built-in dimensions
486x306x140 mm



FP 0451
built-in dimensions
486x306x140 mm
with closing plates



FP 0471
built-in dimensions
306x486x140 mm
with closing plates

Built-in equipment must be suitable for operation by electrotechnical unskilled persons and has to be protected by a cover against direct contact with hazardous life parts.

Empty boxes for the installation of different electrical devices either directly over attachments in the bottom or on DIN rails or mounting plates.

Empty enclosures
tool-operated door lockings

with transparant doors



FP 0100
built-in dimensions
216x126x140 mm



FP 0101
built-in dimensions
216x126x140 mm
with closing plates



FP 0210
built-in dimensions
216x306x140 mm



FP 0211
built-in dimensions
216x306x140 mm
with closing plates



FP 0310
built-in dimensions
216x486x140 mm



FP 0311
built-in dimensions
216x486x140 mm
with closing plates



FP 0400
built-in dimensions
486x306x140 mm



FP 0401
built-in dimensions
486x306x140 mm
with closing plates



FP 0411
built-in dimensions
306x486x140 mm
with closing plates

with opaque doors



FP 0120
built-in dimensions
216x126x140 mm



FP 0121
built-in dimensions
216x126x140 mm
with closing plates



FP 0230
built-in dimensions
216x306x140 mm



FP 0231
built-in dimensions
216x306x140 mm
with closing plates



FP 0330
built-in dimensions
216x486x140 mm
with closing plates



FP 0331
built-in dimensions
216x486x140 mm
with closing plates



FP 0420
built-in dimensions
486x306x140 mm



FP 0421
built-in dimensions
486x306x140 mm
with closing plates



FP 0431
built-in dimensions
306x486x140 mm
with closing plates

Empty boxes for the installation of different electrical devices either directly over attachments in the bottom or on DIN rails or mounting plates.

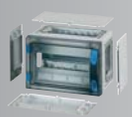
Circuit breaker boxes

with PE/N

for DIN rail equipment
up to 63 A



FP 1109
1x9x18 mm



FP 1108
1x9x18 mm
with closing
plates



FP 1219
2x12x18 mm



FP 1218
2x12x18 mm
with closing
plates



FP 1319
3x12x18 mm



FP 1318
3x12x18 mm
with closing
plates



FP 1409
2x27x18 mm
with closing
plates



FP 1408
2x27x18 mm
with closing
plates



FP 1418
3x17x18 mm
with closing
plates



FP 1211
1x12x18 mm
for miniature
circuit breakers
(MCB)

without PE/N

for DIN rail equipment
up to 63 A



FP 1105
1x12x18 mm
with closing
plates



FP 1215
2x12x18 mm
with closing
plates



FP 1315
3x12x18 mm
with closing
plates



FP 1415
3x17x18 mm
with closing
plates

Circuit breaker boxes for the installation of DIN rail equipment in accordance with DIN 43 880 from 9 up to 54 modules.

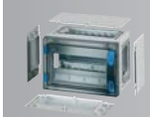
Circuit breaker boxes

without PE/N terminals

for DIN rail equipment
up to 63 A,
with removable DIN rail
rack and earth connection



FP 1106
1x9x18 mm



FP 1107
1x12x18 mm
with closing
plates



FP 1216
2x12x18 mm



FP 1217
2x12x18 mm
with closing
plates



FP 1316
3x12x18 mm



FP 1317
3x12x18 mm
with closing
plates



FP 1406
2x27x18 mm
with closing
plates



FP 1417
3x17x18 mm
with closing
plates

for DIN rail equipment
up to 100 A



FP 1101
1x12x18 mm



FP 1249
2x12x18 mm



FP 1349
3x12x18 mm



FP 1439
2x27x18 mm



FP 1211
1x12x18 mm
for miniature
circuit breakers
(MCB)
**with PE/N
terminals**



FP 1100
Terminal box

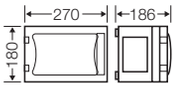
Circuit breaker boxes for the installation of DIN rail equipment in accordance with DIN 43 880 from 9 up to 54 modules.

ENYSTAR
Empty boxes with transparent door
Operation and access also by unskilled persons



FP 0140
Built-in dimensions W 216 x H 126 x D 140 mm
door locking with hand operation

PC | RAL 7035 | 2 / 1 Wall 1 / 2

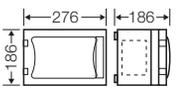


- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 1
- with transparent door
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 0141
Built-in dimensions W 216 x H 126 x D 140 mm
door locking with hand operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 1 Wall 1 / 2

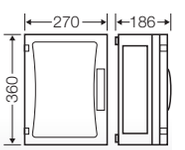


- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 1
- with transparent door
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order flanges separately



FP 0240
Built-in dimensions W 216 x H 306 x D 140 mm
door locking with hand operation

PC | RAL 7035 | 2 / 3 Wall 3 / 2

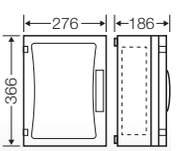


- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 2
- with transparent door
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 0241
Built-in dimensions W 216 x H 306 x D 140 mm
door locking with hand operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 3 Wall 3 / 2



- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 2
- with transparent door
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order flanges separately

ATTENTION

Built-in equipment must be suitable for operation by electrotechnical unskilled persons and has to be protected by a cover against direct contact with hazardous life parts.

ENYSTAR
Empty boxes with transparent door
Operation and access also by unskilled persons

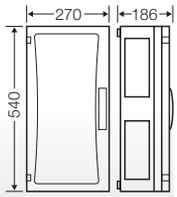


FP 0340

Built-in dimensions W 216 x H 486 x D 140 mm
door locking with hand operation

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 3
- with transparent door
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately

PC | RAL 7035 | 2 / 4 Wall 4 / 2



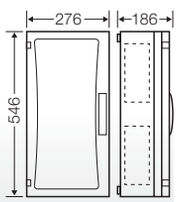


FP 0341

Built-in dimensions W 216 x H 486 x D 140 mm
door locking with hand operation
with closing plates for box walls

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 3
- with transparent door
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately

IP 66 | PC | RAL 7035 | 2 / 4 Wall 4 / 2



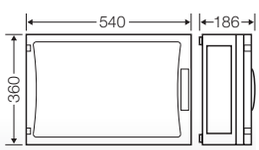


FP 0440

Built-in dimensions W 486 x H 306 x D 140 mm
door locking with hand operation

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 4
- with transparent door
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately

PC | RAL 7035 | 4 / 3 Wall 3 / 4



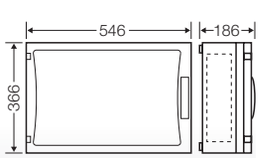


FP 0441

Built-in dimensions W 486 x H 306 x D 140 mm
door locking with hand operation
with closing plates for box walls

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 4
- with transparent door
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately

IP 66 | PC | RAL 7035 | 4 / 3 Wall 3 / 4



ATTENTION

Built-in equipment must be suitable for operation by electrotechnical unskilled persons and has to be protected by a cover against direct contact with hazardous life parts.

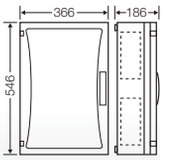
ENYSTAR
Empty boxes with transparent door
Operation and access also by unskilled persons



FP 0461

Built-in dimensions W 306 x H 486 x D 140 mm
door locking with hand operation
with closing plates for box walls





- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 4
- with transparent door
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately

ATTENTION

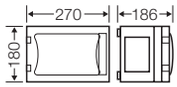
Built-in equipment must be suitable for operation by electrotechnical unskilled persons and has to be protected by a cover against direct contact with hazardous life parts.



FP 0150

Built-in dimensions W 216 x H 126 x D 140 mm
door locking with hand operation

PC | RAL 7035 | 2 / 1 Wall 1 / 2



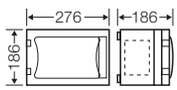
- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 1
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 0151

Built-in dimensions W 216 x H 126 x D 140 mm
door locking with hand operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 1 Wall 1 / 2



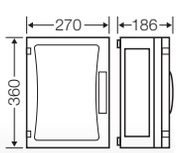
- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 1
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order flanges separately



FP 0250

Built-in dimensions W 216 x H 306 x D 140 mm
door locking with hand operation

PC | RAL 7035 | 2 / 3 Wall 3 / 2



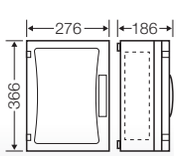
- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 2
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 0251

Built-in dimensions W 216 x H 306 x D 140 mm
door locking with hand operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 3 Wall 3 / 2



- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 2
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order flanges separately

ATTENTION

Built-in equipment must be suitable for operation by electrotechnical unskilled persons and has to be protected by a cover against direct contact with hazardous life parts.

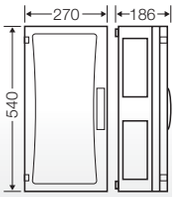


FP 0350

Built-in dimensions W 216 x H 486 x D 140 mm
door locking with hand operation

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 3
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately

PC | RAL 7035 | 2 / 4 Wall 4 / 2



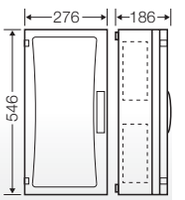


FP 0351

Built-in dimensions W 216 x H 486 x D 140 mm
door locking with hand operation
with closing plates for box walls

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 3
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately

IP 66 | PC | RAL 7035 | 2 / 4 Wall 4 / 2



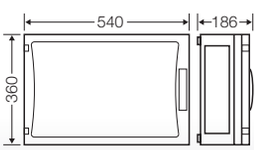


FP 0450

Built-in dimensions W 486 x H 306 x D 140 mm
door locking with hand operation

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 4
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately

PC | RAL 7035 | 4 / 3 Wall 3 / 4



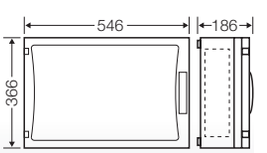


FP 0451

Built-in dimensions W 486 x H 306 x D 140 mm
door locking with hand operation
with closing plates for box walls

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 4
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately

IP 66 | PC | RAL 7035 | 4 / 3 Wall 3 / 4



ATTENTION

Built-in equipment must be suitable for operation by electrotechnical unskilled persons and has to be protected by a cover against direct contact with hazardous life parts.

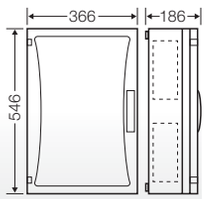


FP 0471

**Built-in dimensions W 306 x H 486 x D 140 mm
door locking with hand operation
with closing plates for box walls**



- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 4
- door locking sealable
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately



ATTENTION

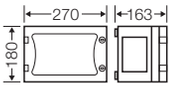
Built-in equipment must be suitable for operation by electrotechnical unskilled persons and has to be protected by a cover against direct contact with hazardous life parts.



FP 0100

Built-in dimensions W 216 x H 126 x D 140 mm
door fastener with tool operation

PC | RAL 7035 | 2 / 1 Wall 1 / 2



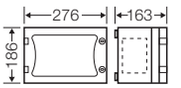
- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 1
- with transparent door
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 0101

Built-in dimensions W 216 x H 126 x D 140 mm
door fastener with tool operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 1 Wall 1 / 2



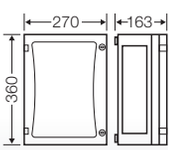
- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 1
- with transparent door
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order flanges separately



FP 0210

Built-in dimensions W 216 x H 306 x D 140 mm
door fastener with tool operation

PC | RAL 7035 | 2 / 3 Wall 3 / 2



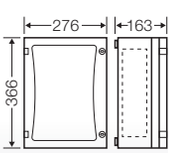
- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 2
- with transparent door
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 0211

Built-in dimensions W 216 x H 306 x D 140 mm
door fastener with tool operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 3 Wall 3 / 2



- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 2
- with transparent door
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order flanges separately

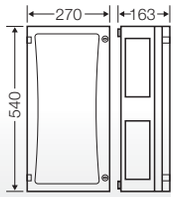
ENYSTAR
Empty boxes with transparent door
Access and operation only by skilled persons



FP 0310
Built-in dimensions W 216 x H 486 x D 140 mm
door fastener with tool operation

PC | RAL 7035 | 2 / 4 Wall 4 / 2

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 3
- with transparent door
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately

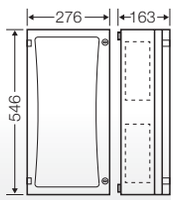




FP 0311
Built-in dimensions W 216 x H 486 x D 140 mm
door fastener with tool operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 4 Wall 4 / 2

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 3
- with transparent door
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately

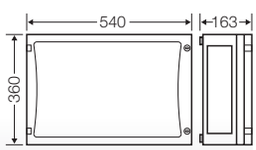




FP 0400
Built-in dimensions W 486 x H 306 x D 140 mm
door fastener with tool operation

PC | RAL 7035 | 4 / 3 Wall 3 / 4

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 4
- with transparent door
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately

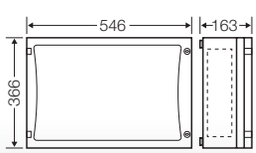




FP 0401
Built-in dimensions W 486 x H 306 x D 140 mm
door fastener with tool operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 4 / 3 Wall 3 / 4

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 4
- with transparent door
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately



ENYSTAR
Empty boxes with transparent door
Access and operation only by skilled persons

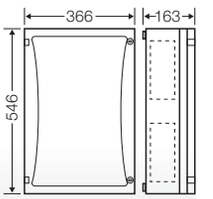


FP 0411

Built-in dimensions W 306 x H 486 x D 140 mm
door fastener with tool operation
with closing plates for box walls



- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- box size 4
- with transparent door
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately

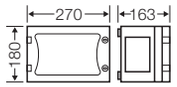




FP 0120

Built-in dimensions W 216 x H 126 x D 140 mm
door fastener with tool operation

PC | RAL 7035 | 2 / 1 Wall 1 / 2



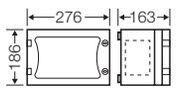
- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 1
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 0121

Built-in dimensions W 216 x H 126 x D 140 mm
door fastener with tool operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 1 Wall 1 / 2



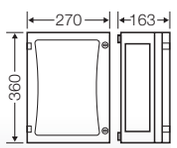
- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 1
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order flanges separately



FP 0230

Built-in dimensions W 216 x H 306 x D 140 mm
door fastener with tool operation

PC | RAL 7035 | 2 / 3 Wall 3 / 2



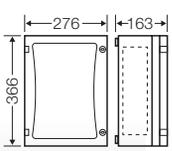
- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 2
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 0231

Built-in dimensions W 216 x H 306 x D 140 mm
door fastener with tool operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 3 Wall 3 / 2



- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 2
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 4 items
- order flanges separately

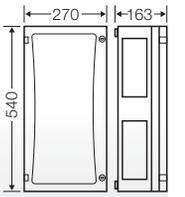


FP 0330

Built-in dimensions W 216 x H 486 x D 140 mm
door fastener with tool operation

PC | RAL 7035 | 2 / 4 Wall 4 / 2

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 3
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately



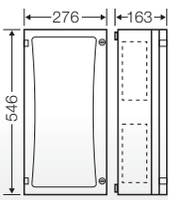


FP 0331

Built-in dimensions W 216 x H 486 x D 140 mm
door fastener with tool operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 4 Wall 4 / 2

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 3
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately



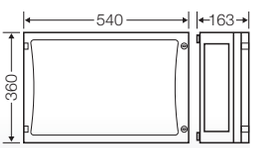


FP 0420

Built-in dimensions W 486 x H 306 x D 140 mm
door fastener with tool operation

PC | RAL 7035 | 4 / 3 Wall 3 / 4

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 4
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately



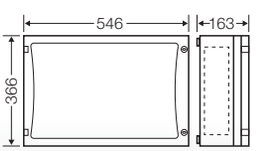


FP 0421

Built-in dimensions W 486 x H 306 x D 140 mm
door fastener with tool operation
with closing plates for box walls

IP 66 | PC | RAL 7035 | 4 / 3 Wall 3 / 4

- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 4
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately



ENYSTAR
Empty boxes with opaque door
Access and operation only by skilled persons

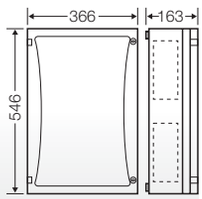


FP 0431

Built-in dimensions W 306 x H 486 x D 140 mm
door fastener with tool operation
with closing plates for box walls



- max. installation depth with built-in mounting plate 136 mm, with built-in DIN rail 125 mm
- with opaque door
- box size 4
- sealing device for door sealing order separately
- please order DIN rails, mounting plates or covers additionally
- connector: 6 items
- order flanges separately

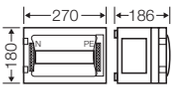




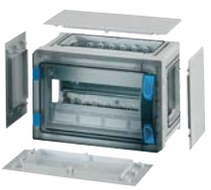
FP 1109

9 modules: 1 x 9 x 18 mm

PC · RAL 7035 · 2 / 1 Wall 1 / 2



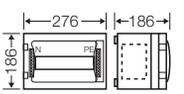
- 1-row
- box size 1
- FIXCONNECT® plug-in terminal technology for PE and N
- PE/N 2 x 25 mm², 8 x 4 mm², Cu each
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 1108

9 modules: 1 x 9 x 18 mm
with closing plates for box walls

IP 66 · PC · RAL 7035 · 2 / 1 Wall 1 / 2



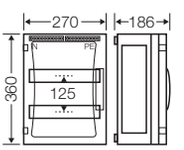
- 1-row
- box size 1
- FIXCONNECT® plug-in terminal technology for PE and N
- PE/N 2 x 25 mm², 8 x 4 mm², Cu each
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 4 items
- order flanges separately



FP 1219

24 modules: 2 x 12 x 18 mm

PC · RAL 7035 · 3 / 2 Wall 2 / 3



- 2-row
- box size 2
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 3 x 25 mm², 12 x 4 mm², Cu
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking sealable
- door locking with hand operation
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately

ENYSTAR
Circuit breaker boxes for the installation of DIN rail equipment up to 63 A
Operation and access also by unskilled persons

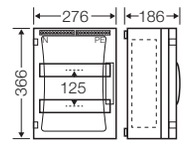


FP 1218

24 modules: 2 x 12 x 18 mm with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 3 Wall 3 / 2

- 2-row
- box size 2
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 3 x 25 mm², 12 x 4 mm², Cu
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 4 items
- order flanges separately



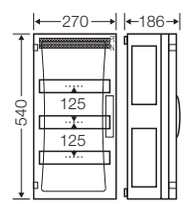


FP 1319

36 modules: 3 x 12 x 18 mm

PC | RAL 7035 | 2 / 4 Wall 4 / 2

- 3-row
- box size 3
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately



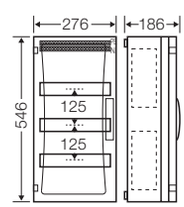


FP 1318

36 modules: 3 x 12 x 18 mm with closing plates for box walls

IP 66 | PC | RAL 7035 | 2 / 4 Wall 4 / 2

- 3-row
- box size 3
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 6 items
- order flanges separately



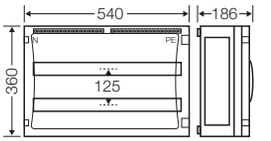
ENYSTAR
Circuit breaker boxes for the installation of DIN rail equipment up to 63 A
Operation and access also by unskilled persons



FP 1409

54 modules: 2 x 27 x 18 mm

PC | RAL 7035 | 4 / 3 Wall 3 / 4



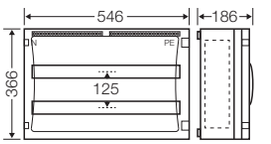
- 2-row
- box size 4
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately



FP 1408

54 modules: 2 x 27 x 18 mm
with closing plates for box walls

IP 66 | PC | RAL 7035 | 4 / 3 Wall 3 / 4



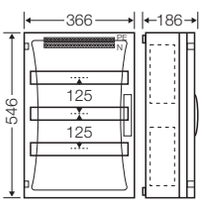
- 2-row
- box size 4
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 6 items
- order flanges separately



FP 1418

51 modules: 3 x 17 x 18 mm
with closing plates for box walls

IP 66 | PC | RAL 7035 | 3 / 4 Wall 4 / 3



- 3-row
- box size 4
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 6 items
- order flanges separately

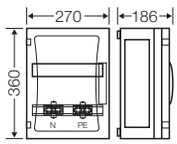
ENYSTAR
Circuit breaker boxes
for the installation of DIN rail equipment up to 63 A
Operation and access also by unskilled persons



FP 1211

PC | RAL 7035 | 2 / 3 Wall 3 / 2

12 modules: 1 x 12 x 18 mm
for miniature circuit breakers (MCB)



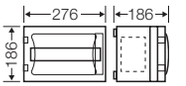
- 1-row
- box size 2
- with 1 DIN rail 216 mm wide (for installation depth of 72 mm)
- for installation of DIN rail equipment up to 100 A in accordance with DIN 43 880
- per PE/N 2 x 25 mm², 4 x 16 mm², Cu
- cover can be sealed
- with lockable blanking strips
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately

FP 1105



IP 66 | PC | RAL 7035 | 2 / 1 Wall 1 / 2

12 modules: 1 x 12 x 18 mm
without PE and N terminal
with closing plates for box walls



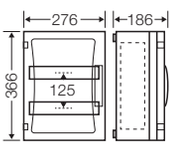
- 1-row
- box size 1
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- order PE/N terminals separately
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 4 items
- walls closed with closing plates, closing plate set included
- order flanges separately

FP 1215



IP 66 | PC | RAL 7035 | 2 / 3 Wall 3 / 2

24 modules: 2 x 12 x 18 mm
without PE and N terminal
with closing plates for box walls



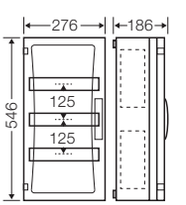
- 2-row
- box size 2
- order PE/N terminals separately
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 4 items
- walls closed with closing plates, closing plate set included
- order flanges separately

FP 1315



IP 66 | PC | RAL 7035 | 2 / 4 Wall 4 / 2

36 modules: 3 x 12 x 18 mm
without PE and N terminal
with closing plates for box walls



- 3-row
- box size 3
- order PE/N terminals separately
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 6 items
- walls closed with closing plates, closing plate set included
- order flanges separately

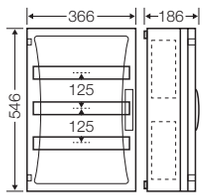
ENYSTAR
Circuit breaker boxes for the installation of DIN rail equipment up to 63 A
Operation and access also by unskilled persons



FP 1415



51 modules: 3 x 17 x 18 mm
without PE and N terminal
with closing plates for box walls



- 3-row
- box size 4
- order PE/N terminals separately
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 6 items
- walls closed with closing plates, closing plate set included
- order flanges separately

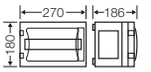
ENYSTAR
Circuit breaker boxes for the installation of DIN rail equipment up to 63 A
Operation and access also by unskilled persons



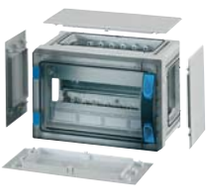
FP 1106

12 modules: 1 x 12 x 18 mm
without PE and N terminal

PC · RAL 7035 · 2 / 1 Wall 1 / 2



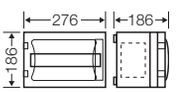
- 1-row
- box size 1
- order PE/N terminals separately
- with installation of a PE/N terminal the number of modules is reduced to 1 x 9 x 18 mm
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- with removable DIN rail rack and earth connection
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 1107

12 modules: 1 x 12 x 18 mm
without PE and N terminal
with closing plates for box walls

IP 66 · PC · RAL 7035 · 2 / 1 Wall 1 / 2



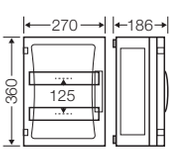
- 1-row
- box size 1
- order PE/N terminals separately
- with installation of a PE/N terminal the number of modules is reduced to 1 x 9 x 18 mm
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- with removable DIN rail rack and earth connection
- connector: 4 items
- walls closed with closing plates, closing plate set included
- order flanges separately



FP 1216

24 modules: 2 x 12 x 18 mm
without PE and N terminal

PC · RAL 7035 · 2 / 3 Wall 3 / 2



- 2-row
- box size 2
- order PE/N terminals separately
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- with removable DIN rail rack and earth connection
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



Removable DIN rail rack for
e.g. earth connection (British standard)

ENYSTAR
Circuit breaker boxes for the installation of DIN rail equipment up to 63 A
Operation and access also by unskilled persons

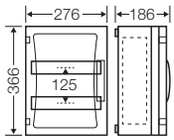


FP 1217

IP 66 | PC | RAL 7035 | 2 / 3 Wall 3 / 2

24 modules: 2 x 12 x 18 mm
without PE and N terminal
with closing plates for box walls

- 2-row
- box size 2
- order PE/N terminals separately
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- with removable DIN rail rack and earth connection
- connector: 4 items
- walls closed with closing plates, closing plate set included
- order flanges separately



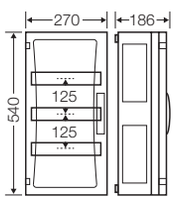


FP 1316

PC | RAL 7035 | 2 / 4 Wall 4 / 2

36 modules: 3 x 12 x 18 mm
without PE and N terminal

- 3-row
- box size 3
- order PE/N terminals separately
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- with removable DIN rail rack and earth connection
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately



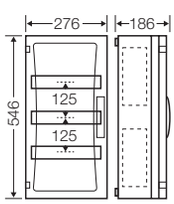


FP 1317

IP 66 | PC | RAL 7035 | 2 / 4 Wall 4 / 2

36 modules: 3 x 12 x 18 mm
without PE and N terminal
with closing plates for box walls

- 3-row
- box size 3
- order PE/N terminals separately
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- with removable DIN rail rack and earth connection
- connector: 6 items
- walls closed with closing plates, closing plate set included
- order flanges separately





Removable DIN rail rack for
e.g. earth connection (British standard)

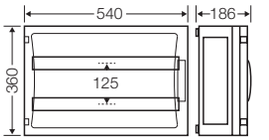
ENYSTAR
Circuit breaker boxes for the installation of DIN rail equipment up to 63 A
Operation and access also by unskilled persons



FP 1406

PC | RAL 7035 | 4 / 3 Wall 3 / 4

54 modules: 2 x 27 x 18 mm
without PE and N terminal



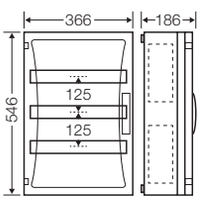
- 2-row
- box size 4
- order PE/N terminals separately
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- with removable DIN rail rack and earth connection
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately



FP 1417

IP 66 | PC | RAL 7035 | 3 / 4 Wall 4 / 3

51 modules: 3 x 17 x 18
without PE and N terminal
with closing plates for box walls



- 3-row
- box size 4
- order PE/N terminals separately
- for installation of DIN rail equipment up to 63 A in accordance with DIN 43880
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- with removable DIN rail rack and earth connection
- connector: 6 items
- walls closed with closing plates, closing plate set included
- order flanges separately



Removable DIN rail rack for
e.g. earth connection (British standard)

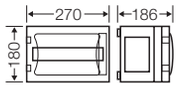
ENYSTAR
Circuit breaker boxes for the installation of DIN rail equipment up to 100 A
Operation and access also by unskilled persons



FP 1101

12 modules: 1 x 12 x 18 mm
without PE and N terminal

PC | RAL 7035 | 2 / 1 Wall 1 / 2



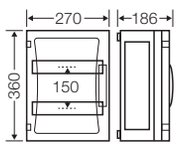
- 1-row
- box size 1
- for installation of DIN rail equipment up to 100 A in accordance with DIN 43 880
- use enclosure FP 1100 for N/PE terminals
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 1249

24 modules: 2 x 12 x 18 mm
without PE and N terminal

PC | RAL 7035 | 2 / 3 Wall 3 / 2



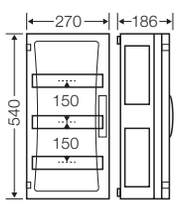
- 2-row
- box size 2
- for installation of DIN rail equipment up to 100 A in accordance with DIN 43 880
- use enclosure FP 1100 for N/PE terminals
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 1349

36 modules: 3 x 12 x 18 mm
without PE and N terminal

PC | RAL 7035 | 2 / 4 Wall 4 / 2



- 3-row
- box size 3
- for installation of DIN rail equipment up to 100 A in accordance with DIN 43 880
- use enclosure FP 1100 for N/PE terminals
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately

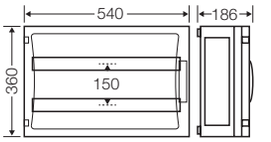
ENYSTAR
Circuit breaker boxes
for the installation of DIN rail equipment up to 100 A
Operation and access also by unskilled persons



FP 1439

54 modules: 2 x 27 x 18 mm
without PE and N terminal

PC | RAL 7035 | 4 / 3 Wall 3 / 4



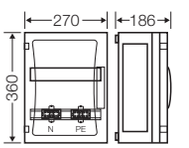
- 2-row
- box size 4
- for installation of DIN rail equipment up to 100 A in accordance with DIN 43 880
- use enclosure FP 1100 for N/PE terminals
- with transparent door
- door locking with hand operation
- door locking sealable
- with blanking strips for unused DIN rail openings
- with labelling strips
- connector: 6 items
- order closing plate sets, single closing plates and flanges separately



FP 1211

12 modules: 1 x 12 x 18 mm
for miniature circuit breakers (MCB)

PC | RAL 7035 | 2 / 3 Wall 3 / 2



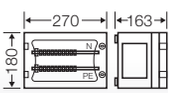
- 1-row
- box size 2
- with 1 DIN rail 216 mm wide (for installation depth of 72 mm)
- for installation of DIN rail equipment up to 100 A in accordance with DIN 43 880
- per PE/N 2 x 25 mm², 4 x 16 mm², Cu
- cover can be sealed
- with lockable blanking strips
- connector: 4 items
- order closing plate sets, single closing plates and flanges separately



FP 1100

Terminal box
per PE+N 12 x 1.5-16 mm², Cu, 1 x 4-35 mm², Cu

PC | RAL 7035 | 2 / 1 Wall 1 / 2



- rated current: 125 A
- box size 1
- with opaque door
- door fastener with tool operation
- sealing device for door sealing order separately
- order closing plate sets, single closing plates and flanges separately



Connection Box	282
Extension frames, DIN rails, spacer	283
Mounting plates for the installation of devices	284
Covers, sealing device for covers	285
Partition, blanking strips, spacer for DIN rail mounted device	286
PE / N terminals, main line branch terminals	287 - 289
Wall separators, closing plates	290 - 291
Metal inserts for closing plates	292
Flanges	293 - 294
Canopy	295
Ventilation / pressure compensation	296 - 297
Connectors, facility for sealing, Conversion kit for door fastener, door lock, dust protection cover, external brackets, mounting profiles	298 - 299

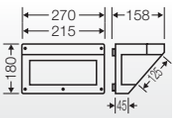


FP CB 210

Connection Box



- for mounting on box walls (270 mm)
- hinged mounting area
- for the installation of devices that must be operated externally, such as plug devices, push buttons and switches



Example:
the Connection Box allows a simple and fast installation of devices, that must be operated externally, such as plug devices, push buttons and switches.



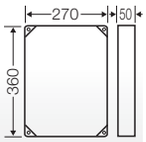




FP ZR 20

Extension frame
for enclosure size 2

- for extension of the installation depth by 50 mm
- inclusive fixing material
- suitable for fixing the cover FP AP 20 in different installation depths

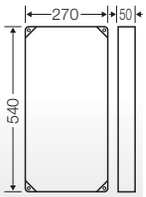




FP ZR 30

Extension frame
for enclosures size 3

- for extension of the installation depth by 50 mm
- inclusive fixing material
- suitable for the admission of cover FP AP 30 in different installation depths

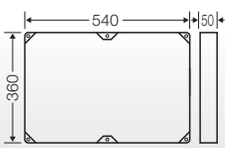




FP ZR 40

Extension frame
for enclosure size 4

- for extension of the installation depth by 50 mm
- inclusive fixing material
- suitable for the admission of cover FP AP 40 in different installation depths

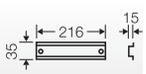




FP TS 27

DIN rail, length 216 mm

- in accordance with DIN EN 60715
- for ENYSTAR empty boxes sizes 1, 2 and 3
- for equipment or terminals with clip-on mounting
- with fixing screws





FP TS 36

DIN rail, length 306 mm

- in accordance with DIN EN 60715
- for ENYSTAR empty boxes sizes 2 and 4
- for equipment or terminals with clip-on mounting
- with fixing screws





FP TS 54

DIN rail, length 486 mm

- in accordance with DIN EN 60715
- for ENYSTAR empty boxes sizes 3 and 4
- for equipment or terminals with clip-on mounting
- with fixing screws

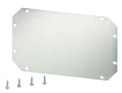




FP DS 02

Spacer
height: 29.5 mm or 53.5 mm

- for spacing DIN rails ENYSTAR
- 2 pieces
- with fixing screws for fixing on bottoms
- to change height turn spacer by 180°.



FP MP 10

Mounting plate
W 216 x H 126 mm

- for ENYSTAR empty boxes sizes 1, 2 and 3
- material thickness 4 mm
- with fixing screws

Lami-nated paper





FP MP 20

Mounting plate
W 216 x H 306 mm

- for ENYSTAR empty boxes sizes 2, 3 and 4
- material thickness 4 mm
- with fixing screws

Lami-nated paper



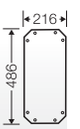


FP MP 30

Mounting plate
W 216 x H 486 mm

- for ENYSTAR empty boxes sizes 3 and 4
- material thickness 4 mm
- with fixing screws

Lami-nated paper



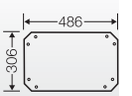


FP MP 40

Mounting plate
W 486 x H 306 mm

- for ENYSTAR empty boxes size 4
- material thickness 4 mm
- with fixing screws

Lami-nated paper





FP BZ 13

Fixing screw
length 13 mm

- for assembling DIN rails or mounting plates at the base of the box
- for material thicknesses of 2.5 to 4 mm
- self-tapping
- galvanised

Example:







FP AP 10

Cover without cut-outs
W 220 x H 130 mm

- for ENYSTAR enclosure size 1
- for retrofitting
- as protection cover or for installation of equipment

PC RAL 7035





FP AP 20

Cover without cut-outs
W 220 x H 310 mm

- for ENYSTAR enclosure size 2
- for retrofitting
- as protection cover or for installation of equipment

PC RAL 7035



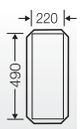


FP AP 30

Cover without cut-outs
W 220 x H 490 mm

- for ENYSTAR enclosure size 3
- for retrofitting
- as protection cover or for installation of equipment

PC RAL 7035



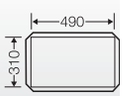


FP AP 40

Cover without cut-outs
W 490 x H 310 mm

- for ENYSTAR enclosure size 4
- for retrofitting
- as protection cover or for installation of equipment

PC RAL 7035





FP PL 2

Sealing device for covers
not suitable for circuit-breaker boxes

- can be retrofitted
- 2 pieces
- with fixing screws

Example:









FP TW 18

Partition
180 mm

- to push-in between enclosures

RAL 7035



FP TW 27

Partition
270 mm

- to push-in between enclosures

RAL 7035



FP TW 36

Partition
360 mm

- to push-in between enclosures
- except between two busbar boxes

RAL 7035



AS 12

Blanking strip
12 modules

- 12 x 18 mm, divisible every 9 mm
- for the covering of spare equipment openings, for material thickness up to 3 mm

RAL 7035



AS 18

Blanking strip
18 modules

- 18 X 18 mm, divisible every 9 mm
- for the covering of spare equipment openings, for material thickness up to 3 mm

RAL 7035



DAE 12

Spacer

- for improvement in the heat dissipation of DIN rail mounted devices
- consisting of 12 items

RAL 7035



FC PN 20

PE and N terminal
PE/N 2 x 25 mm², 8 x 4 mm², Cu each

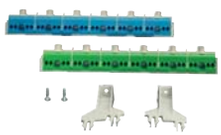
- for installation on DIN rails in accordance with IEC 60 715, top hat profile 35 mm
- for boxes with 1 x 12 modules (through terminal reduction to 9 modules)
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- current carrying capacity: 75 A



FP FC 24

PE and N terminal
per PE/N 3 x 25 mm², 12 x 4 mm², Cu

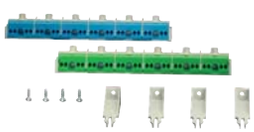
- for enclosures with 2 x 12 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- with fixing screws
- current carrying capacity: 75 A
- N separable for various potentials



FP FC 36

PE and N terminal
per PE/N 6 x 25 mm², 24 x 4 mm², Cu

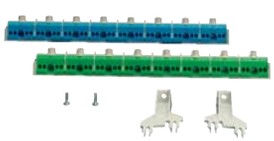
- for enclosures with 3 x 12 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- with fixing screws
- current carrying capacity: 75 A
- N separable for various potentials



FP FC 54

PE and N terminal
per PE/N 6 x 25 mm², 24 x 4 mm², Cu

- for enclosures with 2 x 27 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- with fixing screws
- current carrying capacity: 75 A
- N separable for various potentials



FP FC 51

PE and N terminal
per PE/N 8 x 25 mm², 32 x 4 mm², Cu

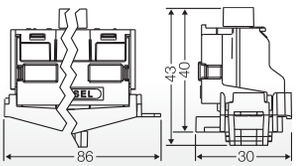
- for enclosures with 3 x 17 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- with fixing screws
- current carrying capacity: 75 A
- N separable for various potentials



FC PE 10

PE terminal
2 x 25 mm², 8 x 4 mm², Cu

- for boxes with 1 x 12 modules (through terminal reduction to 9 modules)
- for installation on DIN rails in accordance with IEC 60 715, top hat profile 35 mm
- FIXCONNECT® plug-in technology, for terminal technology refer to index technical data
- current carrying capacity: 75 A





FP FC 054

PE terminal
6 x 25 mm², 24 x 4 mm², Cu

- for enclosures with 2 x 12 modules, 3 x 12 modules, 2 x 27 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- with fixing screws
- current carrying capacity: 75 A



FP FC 051

PE terminal
8 x 25 mm², 32 x 4 mm², Cu

- for enclosures with 3 x 17 modules
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- with fixing screws
- current carrying capacity: 75 A



FC BS 5

FIXCONNECT® labelling system
set with 5 pieces

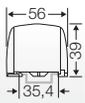
- labelling system for FIXCONNECT® plug-in terminals, not for terminals 2x25 / 4x4 mm²
- for attaching of labelling strips or marking with felt tip pen



KKL 34

Main line branch terminal
per pole 4 x 1.5-25 mm² as L1-L3, Cu

- 3-pole as connecting terminal 25 mm²
- for installation on DIN rails in accordance with IEC 60 715, top hat profile 35 mm
- current carrying capacity: 80 A
- width: 61 mm

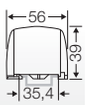




KKL 48

Main line branch terminal
per pole 4 x 1.5-25 mm² as L1-L3;
8 x 1.5-25 mm², as N, Cu

- 4-pole as connecting terminal 25 mm²
- for installation on DIN rails in accordance with IEC 60 715, top hat profile 35 mm
- current carrying capacity: 80 A
- width: 100 mm

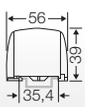




KKL 54

Main line branch terminal
per pole 4 x 1.5-25 mm² as L1-L3;
4 x 1.5-25mm² as N;
4 x 1.5-25 mm² as PE, Cu

- 5-pole as connecting terminal 25 mm²
- for installation on DIN rails in accordance with IEC 60 715, top hat profile 35 mm
- current carrying capacity: 80 A
- width: 100 mm





FP WT 1

Wall separator

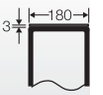
- for connecting enclosure walls of different sizes (refer to technical data)
- for insertion in bases of enclosures
- with 2 fixing elements



FP VP 18

Closing plate
180 mm

- with 2 fixing elements
- without knockouts

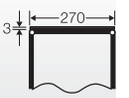




FP VP 27

Closing plate
270 mm

- with 2 fixing elements
- without knockouts

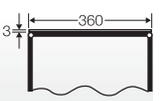




FP VP 36

Closing plate
360 mm

- with 2 fixing elements
- without knockouts







FP VS 10

Closing plate set
box size 1

- 2 x for box wall 1 (180 mm) and 2 x for box wall 2 (270 mm)
- with 8 fixing elements
- without knockouts



FP VS 20

Closing plate set
box size 2

- 2 x for box wall 2 (270 mm) and 2 x for box wall 3 (360 mm)
- with 8 fixing elements
- without knockouts



FP VS 30

Closing plate set
box size 3

- 6 x for box wall 2 (270 mm)
- with 12 fixing elements
- without knockouts



FP VS 40

Closing plate set
box size 4

- 4 x for box wall 2 (270 mm) and 2 x for box wall 3 (360 mm)
- with 12 fixing elements
- without knockouts



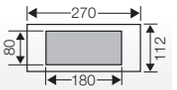


FP VM 27

Metal insert for closing plates

- box size 2 (270 mm)
- for earthing of metal armoured cables
- without knockouts

mounting width	215 mm
mounting height	80 mm



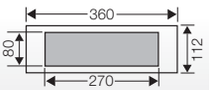


FP VM 36

Metal insert for closing plates

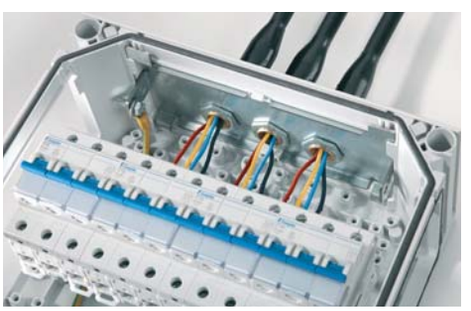
- for box wall 3 (360 mm)
- for earthing of metal armoured cables
- without knockouts

mounting width	215 mm
mounting height	80 mm



Earth connection according to Britsh Standard installation via built-in metal insert.





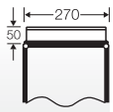


FP FG 200

Flange
without knockouts

- box size 2 (270 mm)
- attached enclosure connectors: 2 items

mounting width	240 mm
mounting height	92 mm



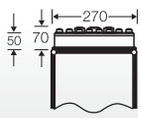


FP FG 222

IP 65

Flange
sealing range Ø 6-30 mm

- sealing range: 17 x Ø 6-13 mm, 2 x Ø 9-17 mm, 2 x Ø 8-23 mm, 1 x Ø 11-30 mm
- box size 2 (270 mm)
- attached enclosure connectors: 2 items
- with integrated grommets for cable entry

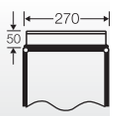




FP FM 225

Flange
knockouts: 7 x M 16/25, 13 x M 20/25

- box size 2 (270 mm)
- attached enclosure connectors: 2 items

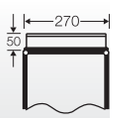




FP FM 232

Flange
knockouts: 8 x M 25/32, 2 x M 25/32/40

- box size 2 (270 mm)
- attached enclosure connectors: 2 items

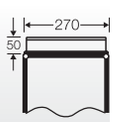




FP FM 240

Flange
knockouts: 2 x M 25/32, 5 x M 25/32/40

- box size 2 (270 mm)
- attached enclosure connectors: 2 items

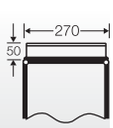




FP FM 263

Flange
knockouts: 2 x M 20, 2 x M 25/32,
2 x M 32/40/50, 1 x M 40/50/63

- box size 2 (270 mm)
- attached enclosure connectors: 2 items



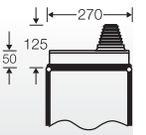


FP FG 272

Flange
sealing range: 1 x Ø 30-72 mm

- box size 2 (270 mm)
- attached enclosure connectors: 2 items

IP 65



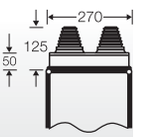


FP FG 273

Flange
sealing range: 2 x each Ø 30-72 mm

- box size 2 (270 mm)
- attached enclosure connectors: 2 items

IP 65





FP FG 282

Cable insert
sealing range: 2 x each Ø 30-72 mm

- divisible for cable insertion from the front
- box size 2 (270 mm)
- attached enclosure connectors: 2 items
- degree of protection IP 65 only with additional strain and pressure relief (e.g. FP ZE 272)

IP 65



FP ZE 272

Cable strain relief
for 2 cables with max. 60 mm external diameter

- box size 2 (270 mm)
- with fixing screws



FP GS 27

Box fin
for inserting cables across 2 boxes

- removable
- for box walls 270 mm
- can be retrofitted

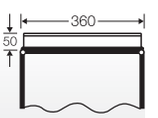


FP FG 300

Flange
without knockouts

- for box wall 3 (360 mm)
- attached enclosure connectors: 2 items

mounting width	330 mm
mounting height	92 mm



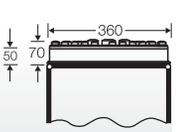


FP FG 331

Flange
sealing range Ø 6-30 mm

- sealing range: 22 x Ø 6-13 mm, 6 x Ø 9-17 mm, 2 x Ø 8-23 mm, 1 x Ø 11-30 mm
- for box wall 3 (360 mm)
- attached enclosure connectors: 2 items
- with integrated grommets for cable entry

IP 65





FP DB 27

Canopy
for box wall 270 mm

- W 270 x D 245 mm
- attached enclosure connectors: 2 items



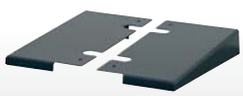


FP DB 36

Canopy
for box wall 300 mm

- W 360 x D 245 mm
- attached enclosure connectors: 2 items

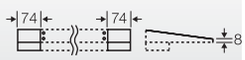




Mi DB 01

Canopy end plate

- for canopies FP DB xx and Mi DB xx



Application of canopy:





FP BF 18

Ventilation flange
180 mm

IP 44

- for ventilation of ENYSTAR Distribution boards in the event of extremely high internal temperatures or a risk of water condensation
- for vertical installation on box walls
- with 2 fixing elements



FP BF 27

Ventilation flange
270 mm

IP 44

- for ventilation of ENYSTAR Distribution boards in the event of extremely high internal temperatures or a risk of water condensation
- for vertical installation on box walls
- with 2 fixing elements



FP BF 36

Ventilation flange
360 mm

IP 44

- for ventilation of ENYSTAR Distribution boards in the event of extremely high internal temperatures or a risk of water condensation
- for vertical installation on box walls
- with 2 fixing elements



BE 44

Ventilation insert

IP 44

Ventilation

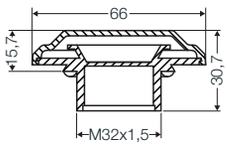




BM 32

Pressure compensation element for M 32 knockouts

IP 65 | ASA/PC Blend | RAL 7016



- for the reduction of condensation by pressure compensation in power distribution systems
- ISO thread M 32 x 1.5
- bore-hole: Ø 32.3 mm
- wall thickness of up to 8 mm
- with counter nut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one pressure compensation element BM 32 must be used per 42 litres (42000 cm³) of enclosure volume.
- Example: enclosure size 30 cm x 60 cm x 17 cm = 30600 cm³ = 30,6 litres. Number of necessary BM 32 (M32) = 1 piece.
- technical changes reserved

Pressure compensation





FP GV 10

Connector

RAL 7035

- when converting existing installations
- for connection of enclosures or fixation of flanges
- set with 10 pieces



FP PL 3

Facility for sealing

- for door sealing
- can be retrofitted
- 2 pieces



FP TS 1

Door lock
converting kit to key operation

- for subsequent installation in hand operated door locking system



FP TS 2

Spare key

- for door lock FP TS 1
- 2 pieces



FP TW 1

Tool operation
conversion kit to tool operation

- can be retrofitted



FP TW 2

Tool key for double-bit
conversion kit to tool operation

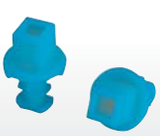
- can be retrofitted



FP TW 3

Tool key for triangular lock, 8 mm
conversion kit to tool operation

- can be retrofitted



FP TW 4

Tool key for sqare lock, 8 mm
conversion kit to tool operation

- can be retrofitted



US 1

Multikey

- triangular 8 mm, square 8 mm, double-bit and slot



DS 1

Triangular key 8 mm



FP TA 1

Dust protection cover for door fasteners after removing the key operation device

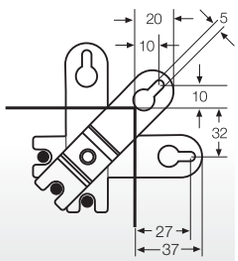
- can be retrofitted
- set with 10 pieces



FP AL 40

4 stainless steel external brackets

- for external fixing of enclosures





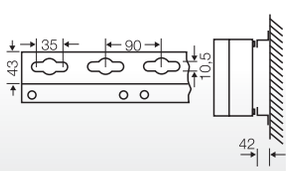
FP MS 1

Profile for wall mounting

RAL 7016

- for ENYSTAR distribution board assemblies up to 810 x 1260 mm
- with 8 screws, washers and nuts for fastening of enclosures

length	1980 mm
material	sendzimir galvanised steel profile with structured powder coating





Varnishing pen RAL 7016

12 ml

RAL 7016



Operating and ambient conditions	302
Standards and requirements	303
Detail dimensions in mm	304 - 305
Rated power dissipation of empty boxes	306 - 307
Assembly of enclosures	308 - 312
Device installation, wiring	314 - 316

ENYSTAR
Technical details
Operating and ambient conditions

	Enclosures with door and closing plates Empty enclosures FP 0...	Circuit breaker boxes FP 1...
Application area	**Suitable for indoor installation and outdoor installation, protected against weather influences** However, pay attention to the climatic effects on the installed equipment, for example, high or low ambient temperatures or formation of condensed water see technical information	
Ambient temperature - Average value over 24 hours - Maximum value - Minimum value	 – + 70 °C – 25 °C	 + 35 °C + 40 °C – 5 °C The ambient temperature for enclosures with electrcal funtions (distribution boards) is reduced by the installed equipment technology!
Relative humidity - short-time	Adhere to the assembly instructions issued by the manufacturer.	50% at 40 °C 100% at 25 °C
Fire protection in the event of internal faults	Demands placed on electrical devices from standards and laws: Minimum requirements - Glow wire test in accordance with IEC 60 695-2-11: - 650 °C for boxes and cable glands - 850 °C for conducting components	
Burning behaviour - Glow wire test IEC 60 695-2-11 - UL Subject 94	 960 °C V-2 flame-retardant self-extinguishing	 960 °C V-2 flame-retardant self-extinguishing
Degree of protection against mechanical load	IK 08 (5 Joule)	IK 08 (5 Joule)
Toxic behaviour	halogen-free [1] silicone-free	halogen-free [1] silicone-free

[1] "Halogen-free" in accordance with IEC 60754-2 "Common test methods for cables - Determination of the amount of halogen acid gas".

For material properties see technical data.

ENYSTAR distribution boards comply with the requirements of the IEC 61439-3

Distribution boards assembled and wired according to manufacturer data without essential deviations from the original type or system.

To meet these requirements for Hensel ENYSTAR Distribution boards, the following must be noted:

1. The distribution boards must consist of the verified enclosures documented in this list.

2. The wiring of the equipment must be carried out with the cross-sections and conductor types indicated in Table “Rating of insulated conductors in switchgear assemblies”, Index Technics.

3. Once the distribution board is completed, a routine test must be carried out in accordance with this standard.

4. The test must be certified with a test report.

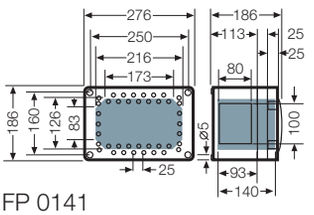
5. The assembly must be provided with a manufacturer’s identification mark.
   Compliance with important data such as
   - limit of temperature rise
   - dielectric strength
   - IP degrees of protection
   - creepage distances and clearances
   is verified for this system.

Standards and regulations

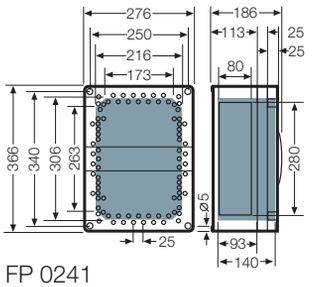
- IEC 61439-3
  ... low-voltage switchgear and controlgear assemblies intended to be in places where unskilled persons have access to their use - distribution boards
- IEC 60999, connecting devices
  Safety requirements for screw-type and screwless-type clamping units for electrical copper conductors
- DIN EN 50262
  Metric threaded cable glands for electrical installations
- DIN 43880
  Built-in equipment for electrical installations; overall dimensions and related mounting dimensions
- IEC 60529 / DIN VDE 0470 Part 1
  Degrees of protection provided by enclosures (IP-Code)

= usable installation space with mounted cable glands

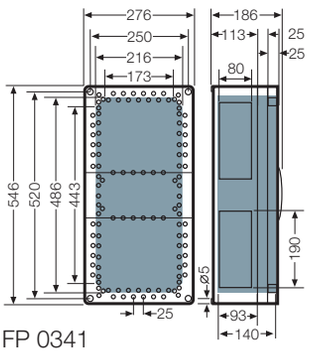
ENYSTAR distribution boards with door lockings for hand operation and closing plates



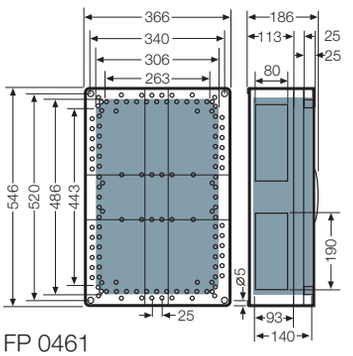
FP 0141
FP 0151



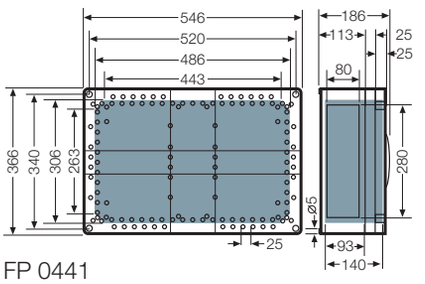
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FP 0251



FP 0341
FP 0351

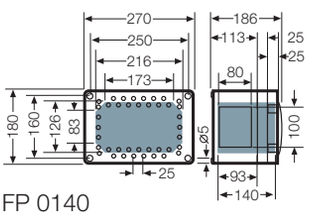


FP 0461
FP 0471

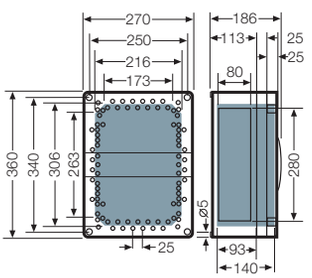


FP 0441
FP 0451

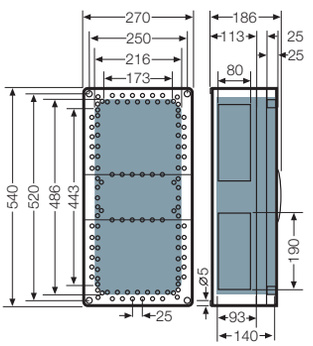
ENYSTAR distribution boards with door lockings for hand operation



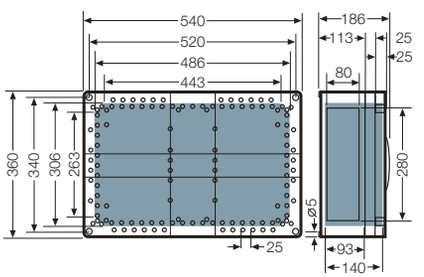
FP 0140
FP 0150



FP 0240
FP 0250

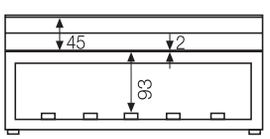


FP 0340
FP 0350



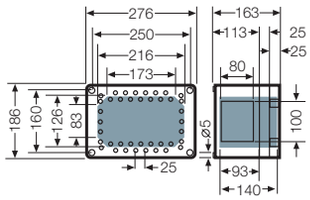
FP 0440
FP 0450

Mounting depth for device installation in covers

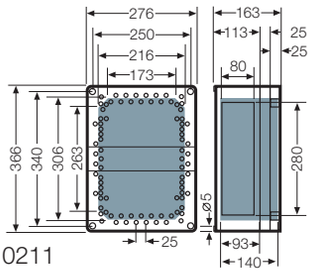


= usable installation space with mounted cable glands

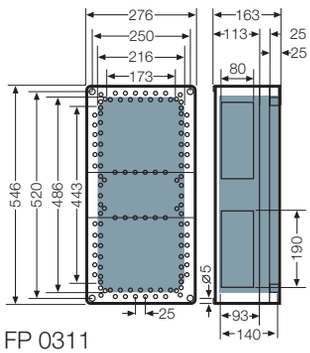
ENYSTAR distribution boards with door lockings for tool-operation and closing plates



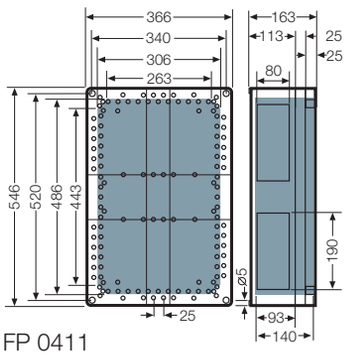
FP 0101
FP 0121



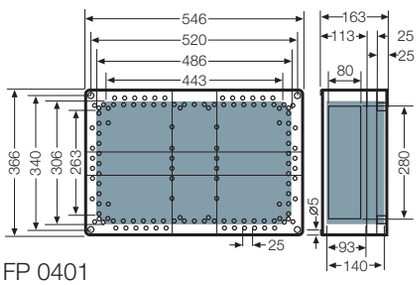
FP 0211
FP 0231



FP 0311
FP 0331

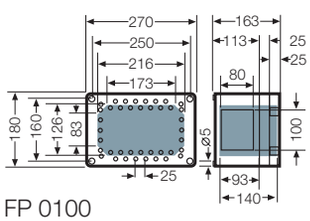


FP 0411
FP 0431

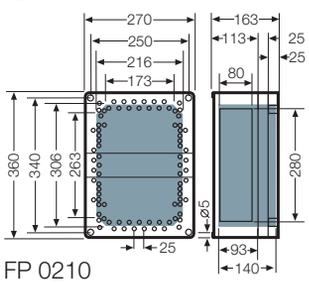


FP 0401
FP 0421

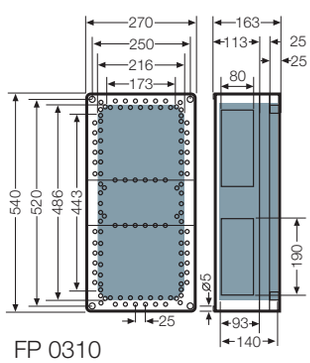
ENYSTAR distribution boards with door lockings for tool-operation



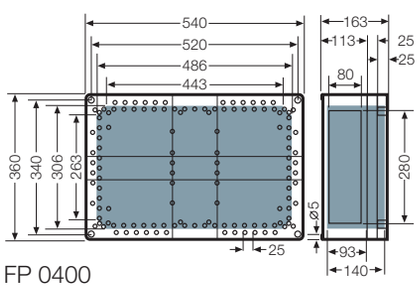
FP 0100
FP 0120



FP 0210
FP 0230

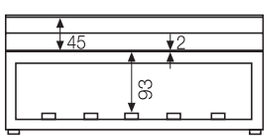


FP 0310
FP 0330

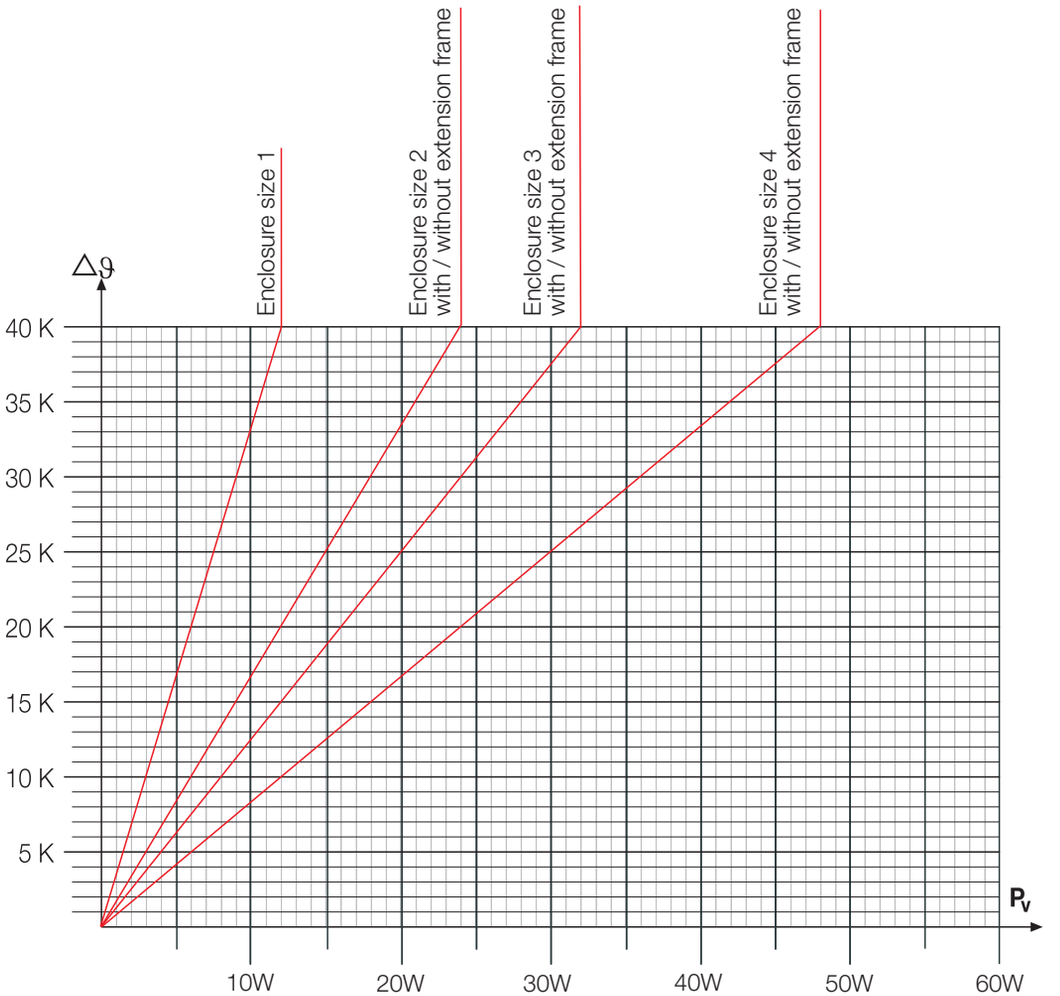


FP 0400
FP 0420

Mounting depth for device installation in covers



Temperature rise (Δϑ) with ENYSTAR enclosures by power dissipation of electrical devices



ENYSTAR distribution board Enclosure size	dimensions (WxH) in mm	rated power dissipation P_{ab} in Watt per kelvin assembled enclosures
Enclosure size 1	270 x 180	0.3
Enclosure size 2	270 x 360	0.6
Enclosure size 3 with / without extension frame	270 x 540	0.8
Enclosure size 4 with / without extension frame	540 x 360	1.2

Note!

The maximally permissible operating temperature inside the enclosures (ϑ_{imax}) is determined by:

1st Maximally permissible ambient temperature of the installed electrical devices (please consider data of the equipment manufacturers)

2nd Category temperature of the internal wiring and the inserted cables

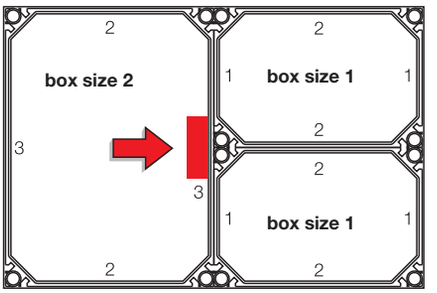
3rd Temperatur resistance of the enclosure materials and the cable entries etc.

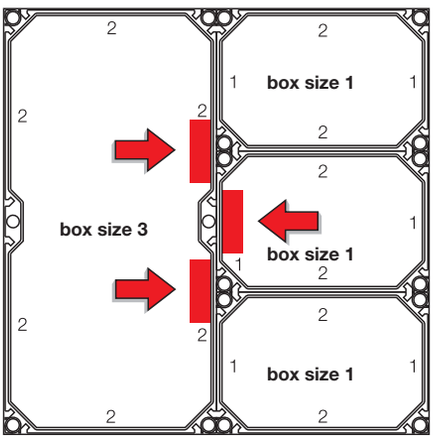
Example: calculation of the maximum rated power dissipation (P_V)	
maximally permissible operating temperature inside the enclosure(s) (ϑ_{imax}):	e.g. 55 °C
ambient temperature of the enclosure(s) (ϑ_U):	25 °C
maximally permissible heating up inside the enclosure:	$\Delta\vartheta = \vartheta_{imax} - \vartheta_U$ = 55 °C - 25 °C = 30 K
maximum permissible power dissipation of the installed equipment inclusive wiring (P_V) in accordance with diagram: enclosure size 3 (540 x 270 x 163 mm):	
enclosures in assemblies:	P_V = 24 W

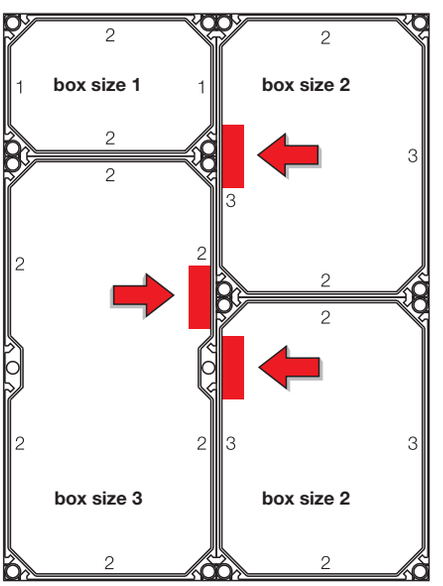
Example: calculation of the operating temperature inside the enclosure (ϑ_i)	
ambient temperature of the enclosure(s) (ϑ_U):	25 °C
rated power dissipation of the installed electrical equipment (P_V):	24 W
heating up inside the enclosures in accordance with diagram over:	$\Delta\vartheta$
enclosure size 3 (540 x 270 x 163 mm):	
assembled enclosures:	$\Delta\vartheta$ = 30 K; $\vartheta_i = \vartheta_U + \Delta\vartheta$ = 25 °C + 30 K = 55 °C

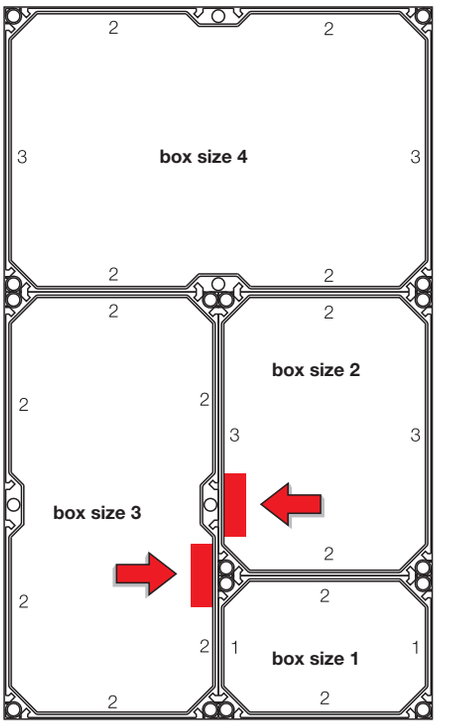
Combination of enclosures with connectors and wall separators

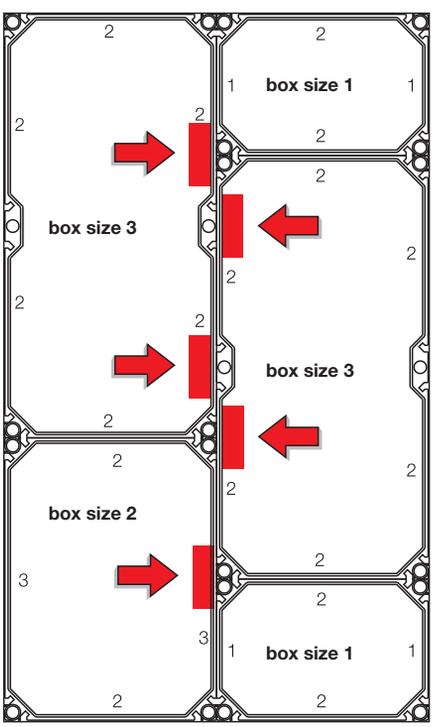
At this point a wall separator is necessary for the enclosure combination.











Fast assembly and mounting

All necessary gaskets are integral part of the enclosures. The enclosures are interconnected among themselves by easily pushing-in of connectors. No tools are necessary.

Connectors are attached to the enclosures in sufficient number. For reconstruction or extensions of existing distribution boards connectors FP GV 10 (set consists of 10 pieces) can be supplemented.

The connection of enclosures is not only co-ordinated with enclosures of the same size.
By means of wall separators also different sized enclosures can be combined.

Wall separators provide for high rigidity and tightness at the connection points of the enclosures, degree of protection IP 66.

Connection of enclosures

Assemble enclosues by push-ing-in enclosed connectors.





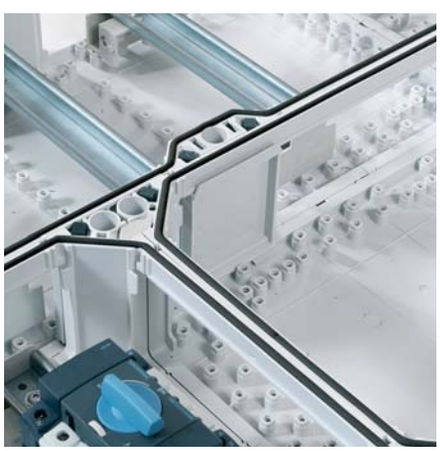
Inserting wall separators

Use wall separators to connect different sized enclosure walls.









Closing walls via closing plates

Insert closing plates into openings of outer walls of the distribution board and fix them with enclosure connectors.





Cable entry - opening knockouts in flanges

Knock out the appropriate cable entries within flanges with screwdriver.





Cable glands

Insert cable gland into the appropriate knockout and fasten with lock nut.





Closing of enclosure walls with flanges for cable entry

Insert flanges for cable entry into open outer walls of the distribution board and fix them with enclosure connectors.

A wide range of flanges for the cable entry is available.

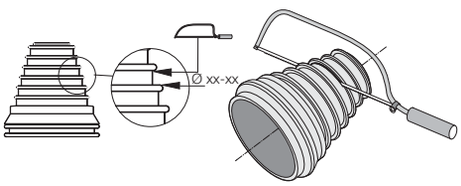


Installation of cable inserts
Saw the box fin.
Afterwards the cable insert is mounted and fixed via enclosure connectors and the rubber entries can be inserted.

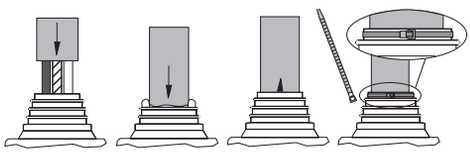




Adjust stepped grommet on the cable diameter.



Insert cable and fix it with the cable ties.





Insert the cable into the box from the front.

Box fin
provides an easier wiring across two boxes.

Saw out fin in box wall.





Insert box fin and fix via fixing wedges.



Installation of extension frame
Fix attachments for extension frame in base of enclosure. Place extension frame on base of enclosure and screw it.





Support for protection cover is adjustable in height.





Click protection cover into place depending on the height of the electric devices (height adjustable).







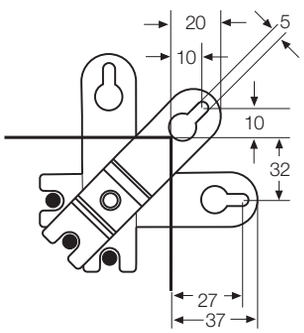
FP ZR ..
Extension frame
for extension of the installation depth by 50 mm

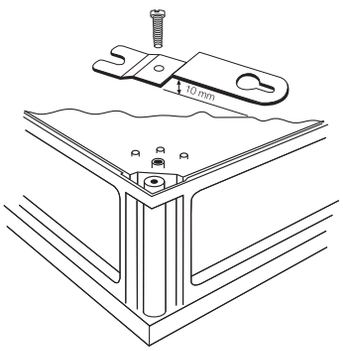
External brackets made from stainless steel
for external box fixing





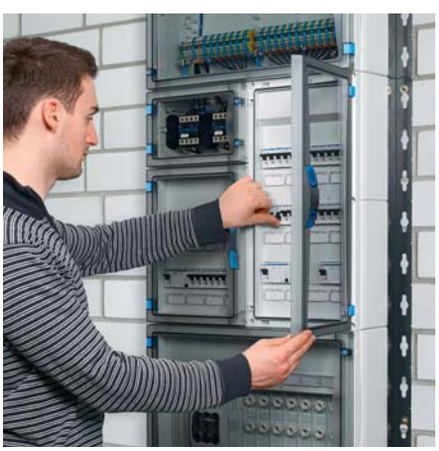
FP AL 40 (4 pieces)



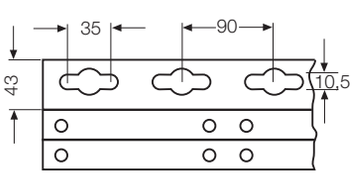


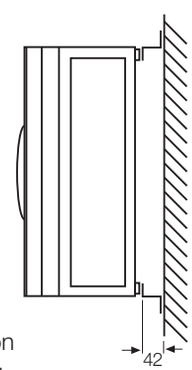
Mounting profile
for wall-mounting of ENYSTAR distribution boards, steel profile,
length 1980 mm
FP MS 1





Fixing matrix of mounting profile





Note:
Please fix mounting profile in vertical position as possible in order to give occation to cable routing behind the assembly.

For cutting to the required length fix mounting profile for example with a clamp to a desk.

Transport
Regarding transportation it is recommendable to protect the assembly against deflection. For that please screw the assembly to a solid timber.

Device installation on mounting plates or DIN rails

Fix installation devices on mounting plate via self-threading screws.

Using screws for fixing mounting plates onto bottom of boxes.





Mount DIN-rails right away on the bottom of bases or via spacers in heights of 29.5 mm or 53.5 mm.





Device installation into covers

Pre-drill the cut-outs at the corners and saw them out of the cover.

Use a piercing saw with coarse toothed saw blade for plastics.
Install device.

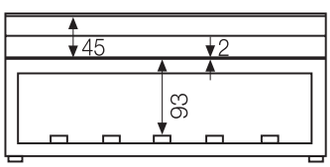




Snap cover into door frame from the rear.
Afterwards, screw door-frame with door and cover onto base of enclosure.







Installation depth for equipment installation in covers

Sealing

For installation in all enclosures except circuit breaker boxes.

Sealing device is screwed on enclosure bottom.

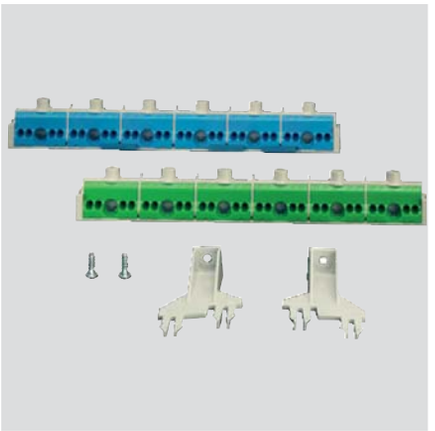
Open pre-moulded opening for sealing device (drill Ø 5 mm) and screw the cover with frame.

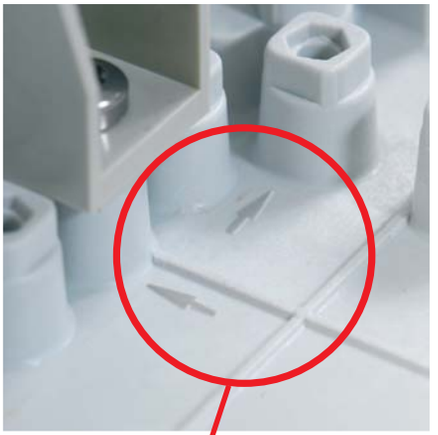




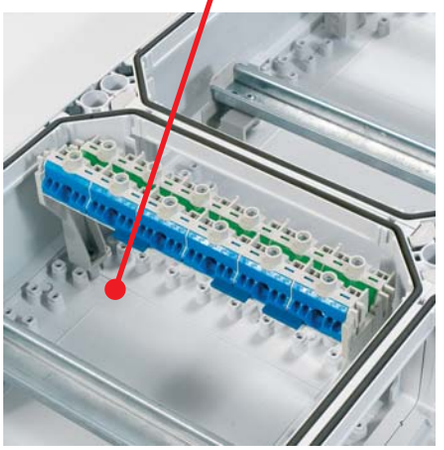
Then screw the frame with door and cover onto base of enclosure.
Seal the cover.

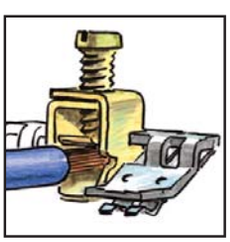










Clamping unit	Corresponding cross-sections/copper				
	max. number	from - to max.		max. number	from - to max.
Screw-type terminal 25 mm²					
	1 1 1 3 3 4 4	25 mm², s 16 mm², s 10 mm², sol 6 mm², sol 4 mm², sol 2.5 mm², sol 1.5 mm², sol	Tested as connecting terminal for several conductors of the same cross-sections for using in one circuit	1 1 1 1 1 1 1	25 mm², f 16 mm², f 10 mm², f 6 mm², f 4 mm², f 2.5 mm², f 1.5 mm², f
Plug-in terminal 4 mm² 	1	1.5 - 4 mm², sol		1	1.5 - 4 mm², f Without end ferrule; clamping unit has to be opened with a tool when conductor is inserted

Current carrying capacity of the connecting device: 75 A
All terminals are secured against self loosening.


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Mi Power Distribution Boards up to 630 A

- **combinable enclosure system**
- **degree of protection IP 65**
- **made from polycarbonate**
- **protection class II, ⧈**
- **in accordance with IEC 61439-2**



Assembly instruction
Mi Power Distribution Boards
up to 630 A
according to IEC 61439-2
please request or download at
www.hensel-electric.de/en ->
Downloads

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Info **Further technical information can be found on the Internet**
www.hensel-electric.de -> Products

ENYMOD

Mi Distribution Boards

Standard-conforming rating of power switchgear and controlgear assemblies according to IEC 61439-2

The new IEC 61439 - the standard for the construction of switchgear assemblies - brings changes that affect the planning of a switchgear assembly. In addition, new tasks and responsibilities are awaiting the manufacturer of a switchgear assembly.

Decisive for the optimal functioning of a switchgear assembly under operating conditions is the correct rating of the interface characteristics of the assembly. For this purpose, the assembly is considered as **BLACK-BOX** with four interface characteristics which shall ensure compatibility with the ratings of the circuits to which it is connected and the installation conditions and shall be declared by the assembly manufacturer using the criteria identified below.

Assembly considered as BLACK BOX with the four interface characteristics according to IEC 61439-2

Installation and ambient conditions

- For the protected outdoor installation
- Degree of protection IP 65
- Combinable enclosure system, extendable in all directions
- 6 enclosure sizes in a grid of 150 mm
- EMC compliant busbar system
- Wall-mounting or floor-standing

Operation and maintainance

- Electrical functions intended to be operated by electrotechnical skilled or unskilled persons
- Protection class II up to a rated current of 630 A
- Flexible by standardised and tested kits
- Spacious connection areas

BLACK BOX
with 4 interfaces



Mi Power Distribution Board (PSC)

Combinable enclosure system, insulation-enclosed, total insulated, degree of protection IP 65, for the assembly of power switchgear and controlgear assemblies (PSC) up to 630 A in accordance with IEC 61439-2.

The requirements for all installed electrical functions within the assembly have been proved compliance with the applicable requirements of IEC 61439-2.

I_{nc} and RDF must be specified in the documentation.

Connection to the electrical network

- Electric circuit / final circuit
- Circuit-breaker up to 630 A
- Switch disconnector up to 630 A
- Fuse switch disconnector up to 630 A
- Bus-mounted fuse base up to 63 A
- Connecton with cable from above / from below
- Connection: conductors from copper / aluminium
- Optional connection of CEE sockets according to EN 60309 and sockets with earthing contact

Circuits and consumers

- Rated voltage U_n = 690 V a.c. / 1000 V d.c.
- Rated current I_N up to 630 A
- Circuit-breaker up to 630 A
- Switch disconnector up to 630 A
- Fuse switch disconnector up to 630 A
- 5-conductor system
- Connecton with cable from above / from below

Changes facing the manufacturer of a switchgear assembly (Panel builder)

IEC 61439 - the standard for the assembly of switchgear assemblies and distribution boards - determines the safety requirements for electrical equipment for the compliance of protection objectives for people and facilities. Requirements for products are more clearly defined and a new terminology is introduced.

BLACK BOX Specification

The designer specifies a switchgear assembly by defining the interface parameters as BLACK BOX.
Based on these interface specifications the manufacturer of a switchgear assembly has to rate and define the structure of the switchgear assembly.

Product presentation in media changed significantly

The standard has an effect as well on the documentation of products. Additional information, such as the rated current of circuits and the number of circuits, are now listed for each product as they are now required by designers and manufacturers for the construction of switchgear assemblies.

The international catalogue presents Mi empty and circuit breaker boxes.



Further enclosures with electrical functions for the assembly of ENYSTAR distribution boards up to 250 A, for example, with built-in busbars, circuit breakers, etc., see at: www.hensel-electric.de

For design and assembly according IEC 61439 / EN 61439 with Mi Distribution Boards up to 630 A please refer to the guide at www.hensel-elctric.de/61439.

The guide to design and assemble in accordance with EN 61439 for ENYSTAR distribution boards up to 250 A and Mi Power distribution boards up to 630 A can be downloaded:

www.hensel-electric.de/61439



Power distribution boards up to 630 A as power switchgear and controlgear assembly (PSC) in accordance with IEC 61439 Part 2



Mi Distribution boards are particulary suitable for the application in challenging industrial and demanding ambient conditions and difficult environments.



Mi Distribution boards are dust and water-resistant and can withstand the highest loads.



All enclosures with transparent or opaque lids

Mi Power distribution boards up to 630 A

combinable enclosure system
insulation-enclosed, total insulated, degree of protection IP 65,
for the assembly of power switchgear and controlgear assembly (PSC)
up to 630 A in accordance with IEC 61439 Part 2

- Boxes can also be used as a single box
- Degree of protection IP 65: dust-proof and jet water-proof
- **Application area: Mi enclosures are suitable for for the protected outdoor installation - harsh environment and /or outdoor.**

Material:

- Polycarbonate
- Burning behaviour: Glow wire test in accordance with IEC 60 695-2-11, self-extinguishing, flame-retardant
- UV-resistance in accordance with IEC 61439-1, Clause 10.2.4: The material is examined for UV resistance.
- Toxic behaviour: silicone- and halogen-free
- Chemical resistance: resistant against acid, lye, benzene and mineral oil

Enclosure System:

- Covers made from thermoplastic
- Covers with protected and captive marking labels
- Cover plates for mounting electrical equipment
- Large wall openings enable the wiring within the distribution boards
- Cable entry via metric knockouts in all box walls, via flanges with metric knockouts or elastic membranes or cable inserts with up to 74 mm cable diameter
- Wall fixing right away in the boxes, via external brackets or via mounting profiles
- Facility for lead seal and locking
- Hinges for lids and heavy-duty hinge joints for operating installation device within a large area
- Connection Box for the installation of devices that must be operated externally, such as plugs, pushbuttons and switches
- Mi empty boxes and single empty boxes conform to the RoHS Directive 2011/65/EC

Electrical parameters

Electrical parameters	rated voltage: max. 690 V a.c. rated insulation voltage: 690 V a.c., 1000 V d.c. rated current: max. 630 A rated short-time withstand current: max. 21 kA The design values are possibly reduced by the installed equipment technology, please refer to technical data of the product or index technical data.

System properties

Environmental conditions	ambient temperature: ■ for distribution boards in accordance with IEC 61439-2: -5 °C up to 35 °C, max. + 40 °C Relative humidity: 50% at 40 °C, 100% at 25 °C ■ for empty enclosures: - 25 °C up to + 70 °C The ambient temperature for distribution boards is reduced by the installed equipment technology!
Application area	**The enclosures are suitable for the protected outdoor installation and harsh environment** Hint: the climatic influences and effects on the equipment are to be considered, see technical details/operating and ambient conditions
Insulation	insulated enclosures (protection class II) ⧈
Impact strength	degree of protection against mechanical load IK 08 (5 Joule) in accordance with IEC 62262
Protection against foreign solid objects and direct contact	dust-proof, degree of protection IP **6**5
Protection against ingress of water with harmful effects	protected against water, degree of protection IP 6**5** Note: Single enclosures without any flanges and components mounted in the lid provide degree of protection IP 66

Material: Polycarbonate

Burning behaviour	glow wire test 960 °C in accordance with IEC 60695-2-11 flame-retardant, self-extinguishing
UV resistance	UV resistance according to IEC 61439-1 the material is examined for UV resistance
Chemical resistance	resistance against acid 10% and alkaline 10%, petrol and mineral oil
Toxic behavour	silicone- and halogen-free
Corrosion resistance	resistant to weather influences such as humidity, temperature, wind

Dependent on the system

Dependent on material

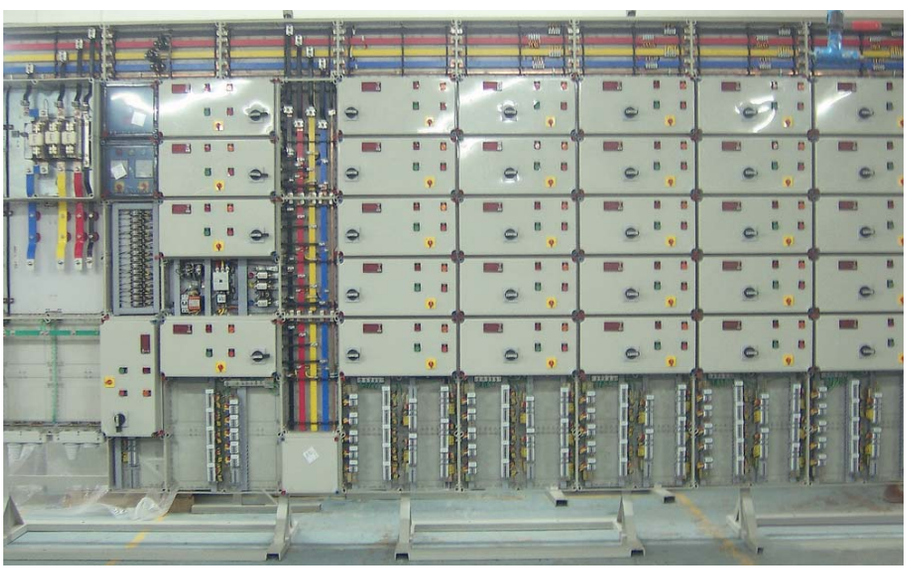
Tested and certified by ASTA



Key benefits

Material	Thermoplastic material
Corrosion-proof	yes
Degree of protection	IP 65 (dust proof, water proof)
Protection against mechanical impact	no lasting deformations, elastic
Weight	”light“
Subsequent handling (such as openings)	”easy“
Transparent lids	standard offer
Operating area	partial opening range via lids of individual enclosures
Adaptability to location	by arrangement of modular enclosures
Combinability / Expandability	in all directions by combinable enclosures including electrical functions
Availability in the market	immediately with standard modules and accessories

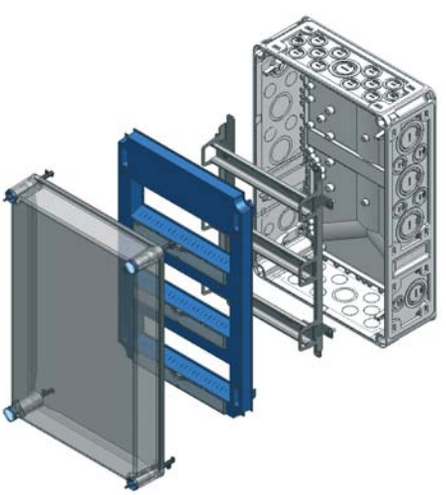
Suitable also for typical devices or the installation of armoured cables with earth connections



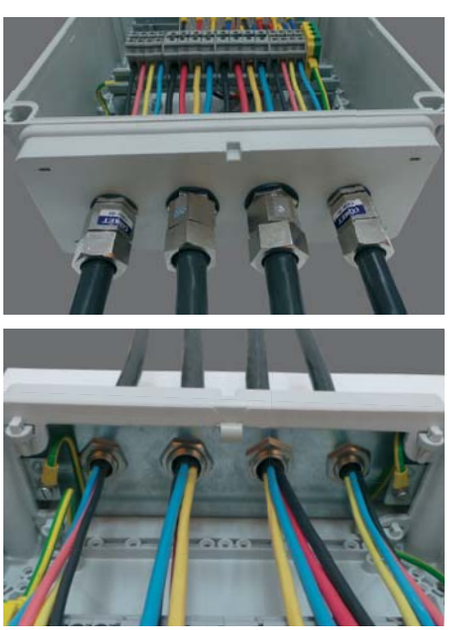
Application:
Motor Control Centre based on Mi System
This Motor Control Centre installed in a big paper mill consists of 33 feeders ranging from 2.2 kW to 50 kW including complete wiring with main incomer of 630 A.

Application:
Removable DIN rail rack for integrated earth bounding in each Mi Circuit breaker box.

Cable entry for armoured cables via metal glands for earth connection according to British Standards.



Integrated earth bounding in each circuit breaker box



Cable entry for armoured cables via metal glands

Combinable and extendable in all directions

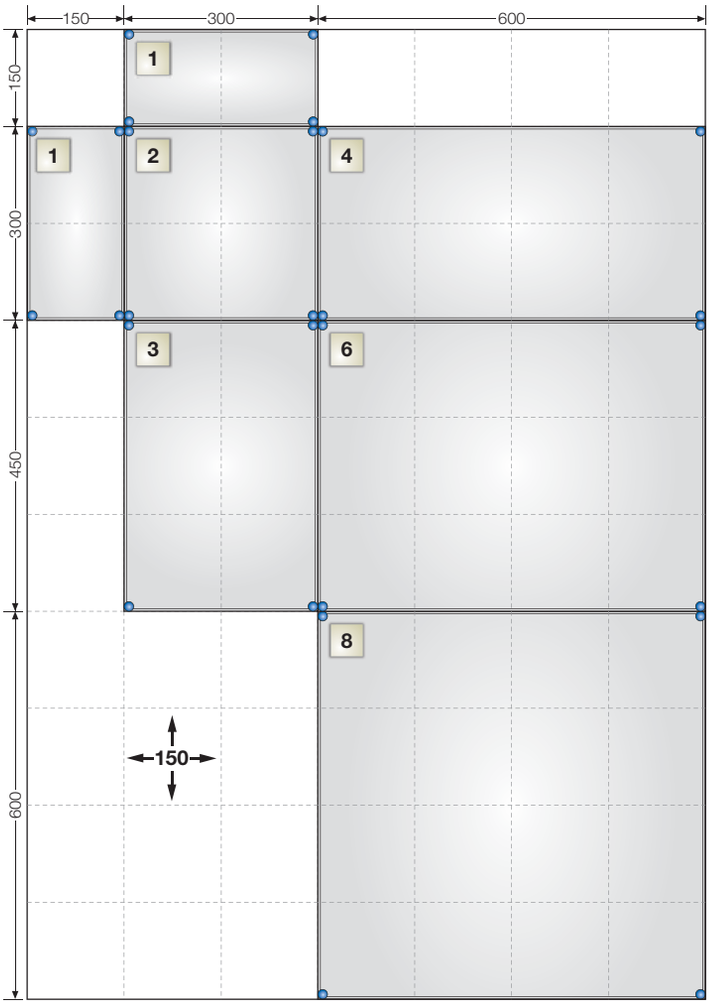
Application examples





Mi Distribution boards

- modular enclosure system in grid of 150 mm
- 5 enclosure sizes:
  150 x 300 mm,
  300 x 300 mm,
  450 x 300 mm,
  600 x 300 mm,
  600 x 450 mm and
  600 x 600 mm
- for the assembly of power switchgear and controlgear assemblies (PSC) up to 630 A
- Enclosures can be used as well as single boxes.



The **modular design** in a basic grid of 150 mm allows free design of the outer form. The enclosures can be combined in all directions. Obstacles at the building structure can be easily circumvented.

Different enclosure depths allow the installation of equipment of different heights (Fig. 1).
With an extension frame the depth of the enclosure sizes 4 and 8 can be extended by 85 mm (Fig. 2).

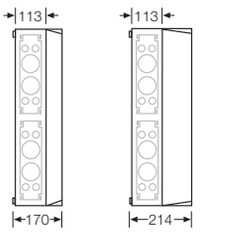


Bild 1

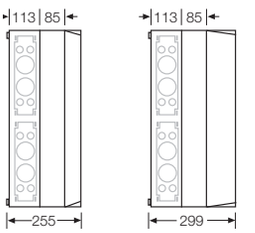


Bild 2

Assignment of box walls:

The assignment of box walls is effected via wall symbols that are assigned to each product. The individual figures 2 give an indication, which wall is concerned.

All box walls are listed in the fold-out of the coverpages.



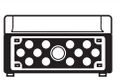
ENYMOD

Mi Distribution boards
Box walls with metric cable entries

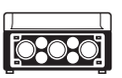
Wall 1
1 x M 20
1 x M 32/40



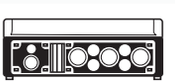
Wall 2
2 x M 20
10 x M 25
1 x M 32/40



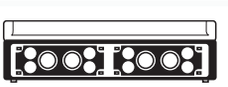
Wall 3
4 x M 25
3 x M 40/50



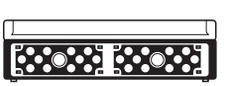
Wall 4
1 x M 20
4 x M 25
1 x M 32/40
3 x M 40/50

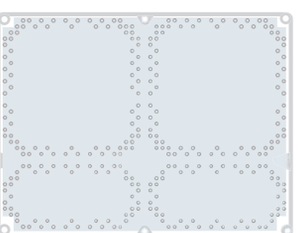


Wall 5
8 x M 32
4 x M 40/50



Wall 6
4 x M 20
20 x M 25
2 x M 32/40





Enclosure size 6 (600x450 mm)

Due to an enlarged terminal compartment directly in the housing, some electrical functions can be installed more economical.
An additional enclosure for wiring is not necessary.





- Equipment can be installed via DIN rails which are fastened on spacers



- Equipment can be installed via mounting plates as well



- Installation of equipment in cover plates



- Boxes can be assembled to larger units



- Blanking strips (attached) for unused sections in equipment openings of protection covers



- Facilities for earth connection according to British Standard

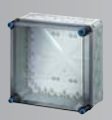
Empty enclosures
transparent or opaque lids



Mi 0100
built-in dimensions
275x125x146 mm



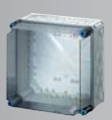
Mi 0101
built-in dimensions
275x125x146 mm



Mi 0200
built-in dimensions
275x275x146 mm



Mi 0201
built-in dimensions
275x275x146 mm



Mi 0210
built-in dimensions
275x275x191 mm



Mi 0211
built-in dimensions
275x275x191 mm



Mi 0220
built-in dimensions
275x275x115 mm
hinged lid



Mi 0221
built-in dimensions
275x275x115 mm
hinged lid



Mi 0300
built-in dimensions
275x425x146 mm



Mi 0301
built-in dimensions
275x425x146 mm



Mi 0310
built-in dimensions
275x425x191 mm



Mi 0311
built-in dimensions
275x425x191 mm



Mi 0400
built-in dimensions
275x575x146 mm



Mi 0401
built-in dimensions
275x575x146 mm



Mi 0410
built-in dimensions
275x575x191 mm



Mi 0411
built-in dimensions
275x575x191 mm



Mi 0600
built-in dimensions
575x425x146 mm



Mi 0601
built-in dimensions
575x425x146 mm



Mi 0800
built-in dimensions
575x575x146 mm



Mi 0801
built-in dimensions
575x575x146 mm

Empty boxes for the installation of different electrical devices either directly over attachments in the base of the enclosures or on DIN rails or mounting plates.

Empty enclosures
hinged transparent or opaque lids



Mi 9100
built-in dimensions
122x272x146 mm,
hinged lid



Mi 9101
built-in dimensions
122x272x146 mm,
hinged lid



Mi 9200
built-in dimensions
275x275x146 mm,
hinged lid



Mi 9201
built-in dimensions
275x275x146 mm,
hinged lid



Mi 9210
built-in dimensions
275x275x191 mm,
hinged lid



Mi 9211
built-in dimensions
275x275x191 mm,
hinged lid



Mi 9300
built-in dimensions
275x425x146 mm,
hinged lid



Mi 9301
built-in dimensions
275x425x146 mm,
hinged lid



Mi 9310
built-in dimensions
275x425x191 mm,
hinged lid



Mi 9311
built-in dimensions
275x425x191 mm,
hinged lid



Mi 9400
built-in dimensions
275x575x146 mm,
hinged lid



Mi 9401
built-in dimensions
275x575x146 mm,
hinged lid



Mi 9410
built-in dimensions
275x575x191 mm,
hinged lid



Mi 9411
built-in dimensions
275x575x191 mm,
hinged lid

Empty boxes with hinged lids applicable as single empty box for he installation of device via DIN rails or mounting plates. The lid keeps permanently connected to the box. Built-in devices can be easily operated and for example measurements conveniently carried out with both hands.

Circuit breaker boxes
without PE/N



Mi 1109
1x9x18 mm,
PE+N



Mi 1112
1x12x18 mm,
PE+N

Mi 1115
1x12x18 mm
without PE+N



Mi 1224
2x12x18 mm,
PE+N

Mi 1225
2x12x18 mm
without PE+N



Mi 1220
2x12x18 mm,
PE+N,
Scharnierdeckel

Mi 1226
2x12x18 mm
without PE+N,
hinged lid



Mi 1336
3x12x18 mm,
PE+N

Mi 1335
3x12x18 mm
without PE+N



Mi 1448
4x12x18 mm,
PE+N



Mi 1440
3x12x18 mm,
1 DIN rail,
without PE+N



Mi 1456 *
2x28x18 mm,
PE+N

Mi 1455 *
2x28x18 mm
without PE+N



Mi 1684 *
2x28x18 mm and
2x12x18 mm
PE+N

Mi 1683 *
2x28x18 mm and
2x12x18 mm
without PE+N



Mi 1884 *
3x28x18 mm,
PE+N

Mi 1885 *
3x28x18 mm
without PE+N



Mi 1111
1x12x18 mm,
PE+N,
1 hinged lid

Mi 1117
1x12x18 mm,
without PE+N,
1 hinged flap



Mi 1222
2x12x18 mm,
PE+N,
2 hinged flaps

Mi 1227
2x12x18 mm,
without PE+N,
2 hinged flaps



Mi 1333
3x12x18 mm,
PE+N,
3 hinged flaps

Mi 1337
3x12x18 mm,
without PE+N,
3 hinged flaps



Mi 1444
4x12x18 mm,
PE+N,
4 hinged flaps

Mi 1445
4x12x18 mm,
without PE+N,
4 hinged flaps



Mi 1443
3x12x18 mm,
1 DIN rail,
without PE+N,
3 hinged flaps



Mi 1281
for miniature
circuit breakers
1x6x18 mm,
PEN

Circuit breaker boxes
removable DIN rail rack and earth connection



Mi 1118 *
1x12x18 mm,
without PE+N



Mi 1228 *
2x12x18 mm,
without PE+N



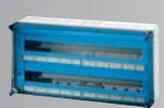
Mi 1221 *
2x12x18 mm,
without PE+N
with hinged lid



Mi 1338 *
3x12x18 mm,
without PE+N



Mi 1446 *
4x12x18 mm,
without PE+N



Mi 1455 *
2x28x18 mm,
without PE+N



Mi 1686 *
2x28x18 mm and
2x12x18 mm



Mi 1885 *
3x28x18 mm,
without PE+N



Mi 1119 *
1x12x18 mm,
without PE+N,
1 hinged flap



Mi 1229 *
2x12x18 mm,
without PE+N,
2 hinged flaps



Mi 1339 *
3x12x18 mm,
without PE+N,
3 hinged flaps



Mi 1449 *
4x12x18 mm,
without PE+N,
4 hinged flaps



* With removable DIN rail rack or earth connection

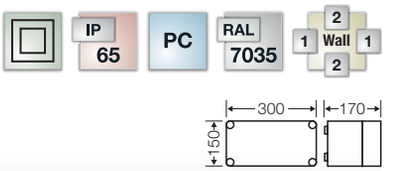
Circuit breaker boxes for the installation of DIN rail equipment in accordance with DIN 43880 from 9 to 84 modules.
Unused DIN rail openings in covers are stripped with attached blanking strips.



Mi 0100

Built-in dimensions W 275 x H 125 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 1
- please order DIN rails, mounting plates or covers additionally
- with transparent lid
- lid fasteners for tool operation

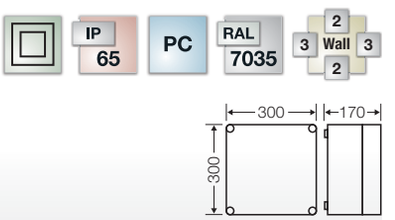




Mi 0200

Built-in dimensions W 275 x H 275 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- with transparent lid
- lid fasteners for tool operation

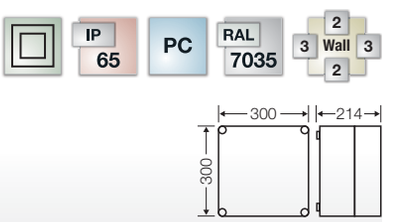




Mi 0210

Built-in dimensions W 275 x H 275 x D 195 mm

- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- with transparent lid
- lid fasteners for tool operation

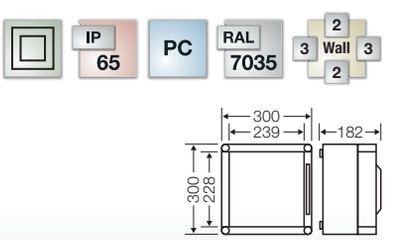




Mi 0220

Built-in dimensions W 275 x H 275 x D 119 mm

- max. installation depth with built-in mounting plate 115 mm, with built-in DIN rail 104 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- with hinged lid for built-in equipment with protection cover which must be operated
- with transparent lid
- lid fasteners for tool operation

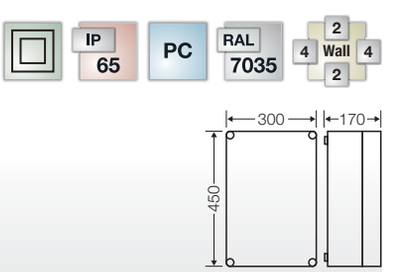




Mi 0300

Built-in dimensions W 275 x H 425 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 3
- please order DIN rails, mounting plates or covers additionally
- with transparent lid
- lid fasteners for tool operation

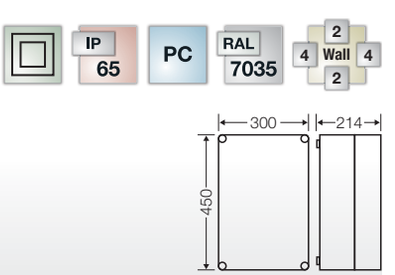




Mi 0310

Built-in dimensions W 275 x H 425 x D 195 mm

- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 3
- please order DIN rails, mounting plates or covers additionally
- with transparent lid
- lid fasteners for tool operation



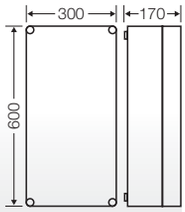


Mi 0400

Built-in dimensions W 275 x H 575 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 4
- please order DIN rails, mounting plates or covers additionally
- with transparent lid
- lid fasteners for tool operation





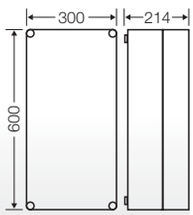


Mi 0410

Built-in dimensions W 275 x H 575 x D 195 mm

- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 4
- please order DIN rails, mounting plates or covers additionally
- with transparent lid
- lid fasteners for tool operation





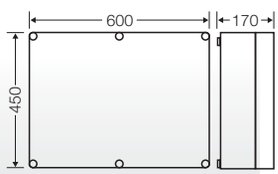


Mi 0600

Built-in dimensions W 575 x H 425 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 6
- please order DIN rails, mounting plates or covers additionally
- with transparent lid
- lid fasteners for tool operation





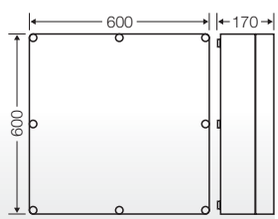


Mi 0800

Built-in dimensions W 575 x H 575 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 8
- please order DIN rails, mounting plates or covers additionally
- cable entry only possible via flange
- with transparent lid
- lid fasteners for tool operation



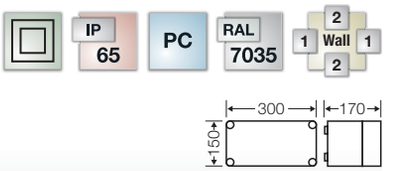




Mi 0101

Built-in dimensions W 275 x H 125 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 1
- please order DIN rails, mounting plates or covers additionally
- with opaque lid
- lid fasteners for tool operation

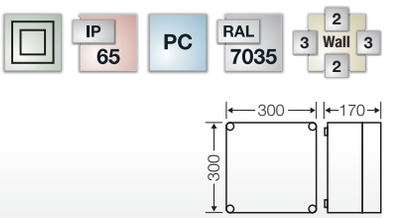




Mi 0201

Built-in dimensions W 275 x H 275 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- with opaque lid
- lid fasteners for tool operation

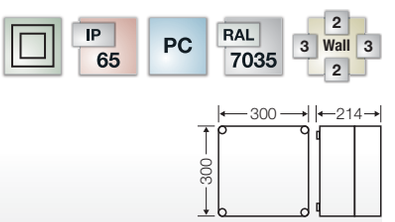




Mi 0211

Built-in dimensions W 275 x H 275 x D 195 mm

- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- with opaque lid
- lid fasteners for tool operation

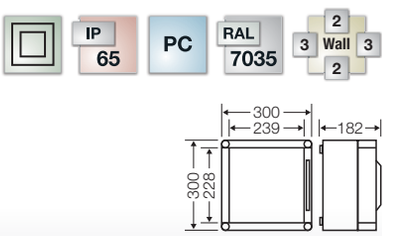




Mi 0221

Built-in dimensions W 275 x H 275 x D 119 mm

- max. installation depth with built-in mounting plate 115 mm, with built-in DIN rail 104 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- with hinged lid for built-in equipment with protection cover which must be operated
- with opaque lid
- lid fasteners for tool operation

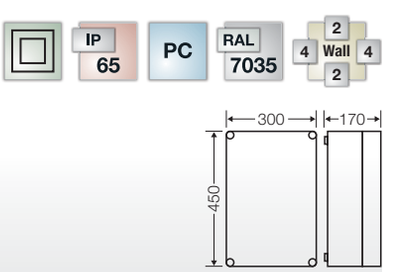




Mi 0301

Built-in dimensions W 275 x H 425 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 3
- please order DIN rails, mounting plates or covers additionally
- with opaque lid
- lid fasteners for tool operation

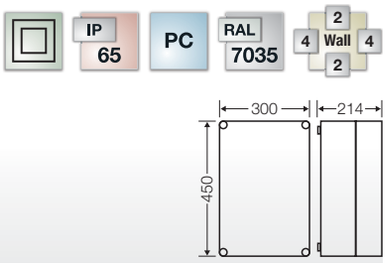




Mi 0311

Built-in dimensions W 275 x H 425 x D 195 mm

- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 3
- please order DIN rails, mounting plates or covers additionally
- with opaque lid
- lid fasteners for tool operation

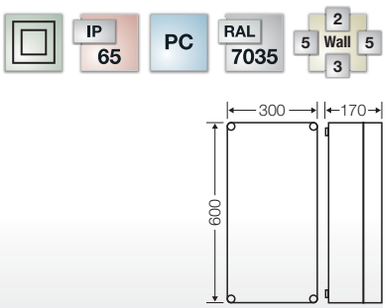




Mi 0401

Built-in dimensions W 275 x H 575 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 4
- please order DIN rails, mounting plates or covers additionally
- with opaque lid
- lid fasteners for tool operation

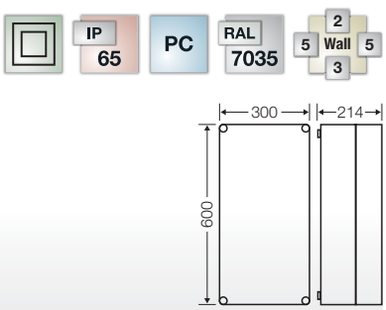




Mi 0411

Built-in dimensions W 275 x H 575 x D 195 mm

- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 4
- please order DIN rails, mounting plates or covers additionally
- with opaque lid
- lid fasteners for tool operation

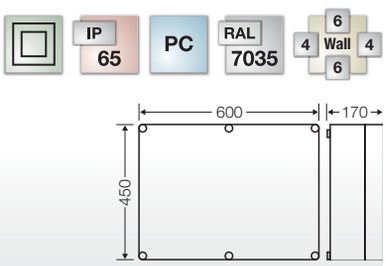




Mi 0601

Built-in dimensions B 575 x H 425 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 6
- please order DIN rails, mounting plates or covers additionally
- with opaque lid
- lid fasteners for tool operation

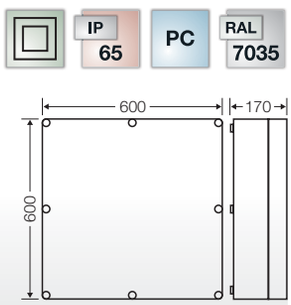




Mi 0801

Built-in dimensions W 575 x H 575 x D 150 mm

- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 8
- please order DIN rails, mounting plates or covers additionally
- cable entry only possible via flange
- with opaque lid
- lid fasteners for tool operation

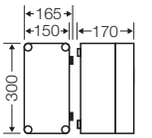




Mi 9100

Built-in dimensions W 125 x H 275 x D 150 mm





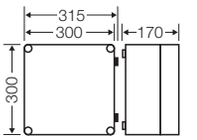
- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 1
- please order DIN rails, mounting plates or covers additionally
- 3 walls with metric knockouts for cable entry and assembly
- trilaterally combinable
- lid hinges attached
- with transparent, hinged lid
- lid fasteners for tool operation



Mi 9200

Built-in dimensions W 275 x H 275 x D 150 mm





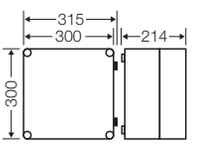
- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with transparent, hinged lid
- lid fasteners for tool operation



Mi 9210

Built-in dimensions W 275 x H 275 x D 195 mm





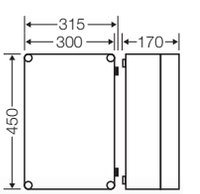
- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with transparent, hinged lid
- lid fasteners for tool operation



Mi 9300

Built-in dimensions W 275 x H 425 x D 150 mm



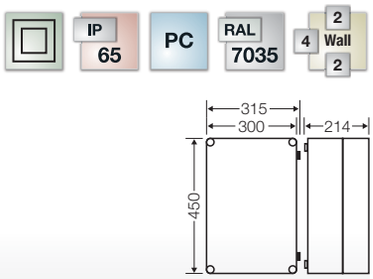


- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 3
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with transparent, hinged lid
- lid fasteners for tool operation



Mi 9310

Built-in dimensions W 275 x H 425 x D 195 mm



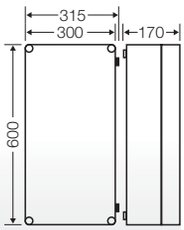
- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 3
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with transparent, hinged lid
- lid fasteners for tool operation



Mi 9400

Built-in dimensions W 275 x H 575 x D 150 mm





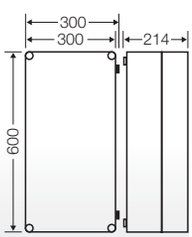
- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 4
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with transparent, hinged lid
- lid fasteners for tool operation



Mi 9410

Built-in dimensions W 275 x H 575 x D 195 mm





- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 4
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with transparent, hinged lid
- lid fasteners for tool operation

Assembly example: Empty boxes with hinged lids
Applicable as single empty box for the installation of device via DIN rails or mounting plates.
Easy and fast assembly. Lid suitable for the installation of signallers.

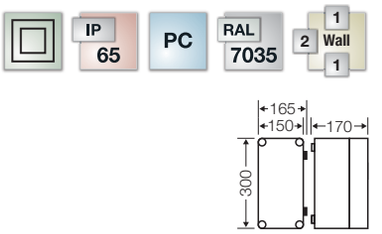






Mi 9101

Built-in dimensions W 125 x H 275 x D 150 mm



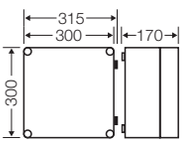
- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 1
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with opaque, hinged lid
- lid fasteners for tool operation



Mi 9201

Built-in dimensions W 275 x H 275 x D 150 mm





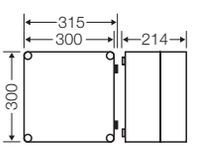
- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with opaque, hinged lid
- lid fasteners for tool operation



Mi 9211

Built-in dimensions W 275 x H 275 x D 195 mm





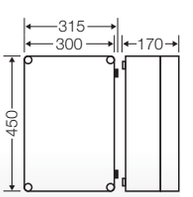
- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 2
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with opaque, hinged lid
- lid fasteners for tool operation



Mi 9301

Built-in dimensions W 275 x H 425 x D 150 mm





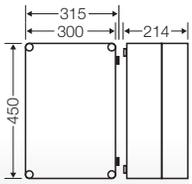
- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 3
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with opaque, hinged lid
- lid fasteners for tool operation



Mi 9311

Built-in dimensions W 275 x H 425 x D 195 mm





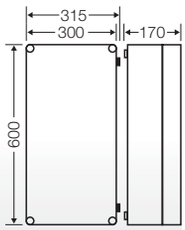
- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 3
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with opaque, hinged lid
- lid fasteners for tool operation



Mi 9401

Built-in dimensions W 275 x H 575 x D 150 mm





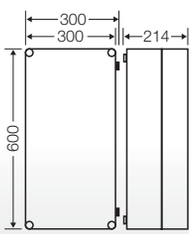
- max. installation depth with built-in mounting plate 146 mm, with built-in DIN rail 135 mm
- box size 4
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with opaque, hinged lid
- lid fasteners for tool operation



Mi 9411

Built-in dimensions W 275 x H 575 x D 195 mm

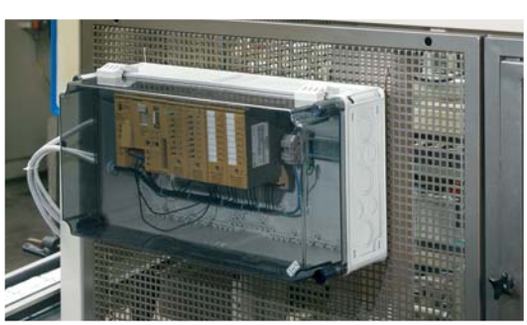




- max. installation depth with built-in mounting plate 191 mm, with built-in DIN rail 180 mm
- box size 4
- please order DIN rails, mounting plates or covers additionally
- trilaterally combinable
- 3 walls with metric knockouts for cable entry and assembly
- lid hinges attached
- with opaque, hinged lid
- lid fasteners for tool operation

Assembly example: Empty boxes with hinged lids
Applicable as single empty box for the installation of device via DIN rails or mounting plates.
Easy and fast assembly. Lid suitable for the installation of signallers.





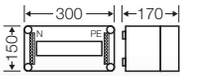


Mi 1109

9 modules: 1 x 9 x 18 mm

IP 65 | PC | RAL 7035 | 2 / 1 Wall 1 / 2

- 1-row
- FIXCONNECT® plug-in terminal technology for PE and N
- PE/N 2 x 25 mm², 8 x 4 mm², Cu each
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



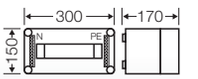


Mi 1112

12 modules: 1 x 12 x 18 mm

IP 65 | PC | RAL 7035 | 2 / 1 Wall 1 / 2

- 1-row
- with screw-type terminals for PE/N, for copper conductors
- per PE/N 10 x 16 mm², Cu
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



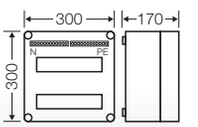


Mi 1224

24 modules: 2 x 12 x 18 mm

IP 65 | PC | RAL 7035 | 2 / 3 Wall 3 / 2

- 2-row
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 3 x 25 mm², 12 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



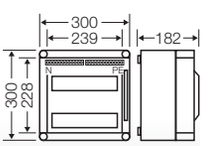


Mi 1220

24 modules: 2 x 12 x 18 mm

IP 65 | PC | RAL 7035 | 2 / 3 Wall 3 / 2

- 2-row
- with hinged lid
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 3 x 25 mm², 12 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



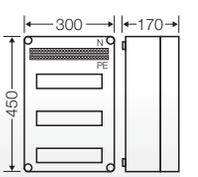


Mi 1336

36 modules: 3 x 12 x 18 mm

IP 65 | PC | RAL 7035 | 2 / 4 Wall 4 / 2

- 3-row
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



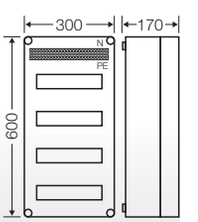


Mi 1448

48 modules: 4 x 12 x 18 mm

IP 65 | PC | RAL 7035 | 2 / 5 Wall 5 / 3

- 4-row
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation

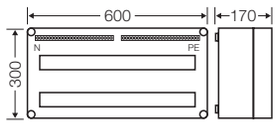




Mi 1456

56 modules: 2 x 28 x 18 mm





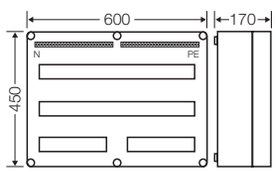
- 2-row
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed



Mi 1684

80 modules: 2 x 28 x 18 mm and 2 x 12 x 18 mm





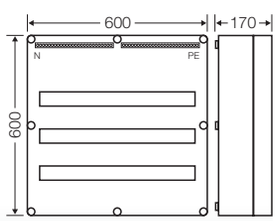
- 3-row
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed



Mi 1884

84 modules: 3 x 28 x 18 mm





- 3-row
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed
- cable entry only possible via flange



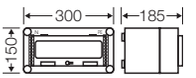
Assembly example:
Removable DIN rail rack for earth connection



Mi 1111

12 modules: 1 x 12 x 18 mm





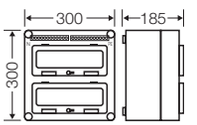
- 1-row
- with 1 hinged flap
- hinged flap lockable with accessories
- with screw-type terminals for PE/N, for copper conductors
- per PE/N 10 x 16 mm², Cu
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



Mi 1222

24 modules: 2 x 12 x 18 mm





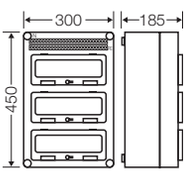
- 2-row
- with 2 hinged flaps
- hinged flap lockable with accessories
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 3 x 25 mm², 12 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



Mi 1333

36 modules: 3 x 12 x 18 mm





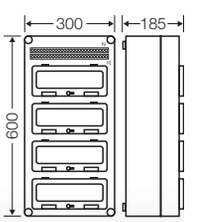
- 3-row
- with 3 hinged flaps
- hinged flap lockable with accessories
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



Mi 1444

48 modules: 4 x 12 x 18 mm





- 4-row
- with 4 hinged flaps
- hinged flap lockable with accessories
- FIXCONNECT® plug-in terminal technology for PE and N
- per PE/N 6 x 25 mm², 24 x 4 mm², Cu
- N separable for various potentials
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation

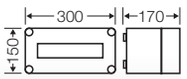


Mi 1115

12 modules: 1 x 12 x 18 mm
without PE and N terminal

- 1-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation

IP 65 | PC | RAL 7035 | 2 / 1 Wall 1 / 2



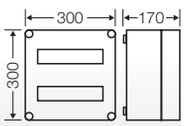


Mi 1225

24 modules: 2 x 12 x 18 mm
without PE and N terminal

- 2-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation

IP 65 | PC | RAL 7035 | 2 / 3 Wall 3 / 2



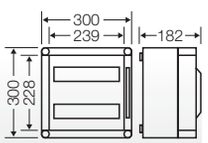


Mi 1226

24 modules: 2 x 12 x 18 mm
without PE and N terminal
with hinged lid

- 2-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation

IP 65 | PC | RAL 7035 | 2 / 3 Wall 3 / 2



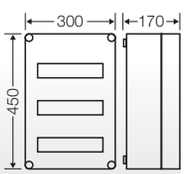


Mi 1335

36 modules: 3 x 12 x 18 mm
without PE and N terminal

- 3-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation

IP 65 | PC | RAL 7035 | 2 / 4 Wall 4 / 2



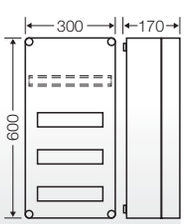


Mi 1440

36 modules: 3 x 12 x 18 mm
without PE and N terminal
with additional DIN rail

- 4-row
- with 1 DIN rail 216 mm wide (for installation depth of 72 mm)
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation

IP 65 | PC | RAL 7035 | 2 / 5 Wall 5 / 3



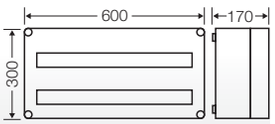


Mi 1455

56 modules: 2 x 28 x 18 mm
without PE and N terminal



- 2-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection



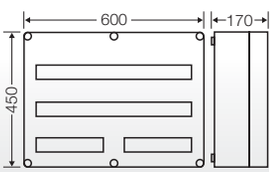


Mi 1683

80 modules: 2 x 28 x 18 mm and
2 x 12 x 18 mm
without PE and N terminal



- 3-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection



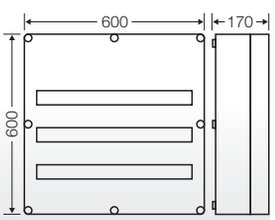


Mi 1885

84 modules: 3 x 28 x 18 mm
without PE and N terminal



- 3-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- cable entry only possible via flange





Assembly example:
Removable DIN rail rack for earth connection

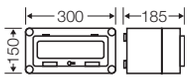


Mi 1117

12 modules: 1 x 12 x 18 mm
without PE and N terminal

IP 65 | PC | RAL 7035 | 2 / 1 Wall 1 / 2

- 1-row
- with 1 hinged flap
- hinged flap lockable with accessories
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



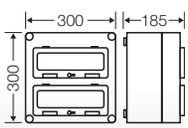


Mi 1227

24 modules: 2 x 12 x 18 mm
without PE and N terminal

IP 65 | PC | RAL 7035 | 2 / 3 Wall 3 / 2

- 2-row
- with 2 hinged flaps
- hinged flap lockable with accessories
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



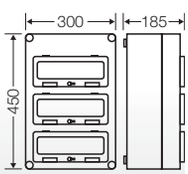


Mi 1337

36 modules: 3 x 12 x 18 mm
without PE and N terminal

IP 65 | PC | RAL 7035 | 2 / 4 Wall 4 / 2

- 3-row
- with 3 hinged flaps
- hinged flap lockable with accessories
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



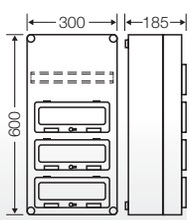


Mi 1443

36 modules: 3 x 12 x 18 mm
without PE and N terminal
with additional DIN rail

IP 65 | PC | RAL 7035 | 2 / 5 Wall 5 / 3

- 4-row
- with 3 hinged flaps
- hinged flap lockable with accessories
- with 1 DIN rail 216 mm wide (for installation depth of 72 mm)
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



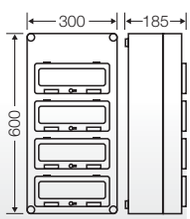


Mi 1445

48 modules: 4 x 12 x 18 mm
without PE and N terminal

IP 65 | PC | RAL 7035 | 2 / 5 Wall 5 / 3

- 4-row
- with 4 hinged flaps
- hinged flap lockable with accessories
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation



Mi Distribution Boards
Circuit breaker boxes for miniature circuit-breakers (MCB)

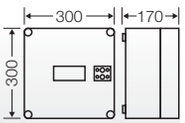


Mi 1281

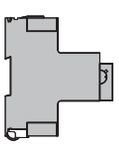
6 modules: 1 x 6 x 18 mm for miniature circuit breakers (MCB)



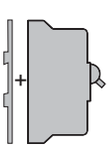
- 1-row
- with 1-pole main branch terminal for copper conductors
- protection cover can be sealed, with lockable cover strip
- lid fasteners for hand operation
- PEN 2 x 25 mm², 2 x 16 mm², Cu, round conductors



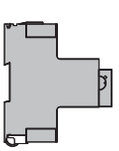
Note:
Prepared for the installation of currently commercially available miniature circuit-breakers (MDB)



for example
ABN Type XHA 3..-4
Hager Type HTN..E
etc.
SHA
(voltage dependent)



for example
ABN Type S 701/S 703
+ adapter for DIN rail
S 700 BT3
(1 pc. for S 701, 2 pc. for S 703)
SHU (voltage dependent)



for example
ABB Type S 80.-...
SHU (voltage dependent)

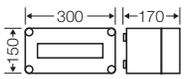


Mi 1118

12 modules: 1 x 12 x 18 mm
without PE and N terminal

- 1-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed

IP 65 | PC | RAL 7035 | 2 / 1 Wall 1 / 2



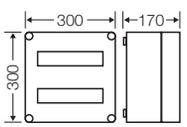


Mi 1228

24 modules: 2 x 12 x 18 mm
without PE and N terminal

- 2-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed

IP 65 | PC | RAL 7035 | 2 / 3 Wall 3 / 2



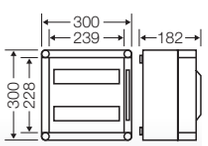


Mi 1221

24 modules: 2 x 12 x 18 mm
without PE and N terminal
with hinged lid

- 2-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed

IP 65 | PC | RAL 7035 | 2 / 3 Wall 3 / 2



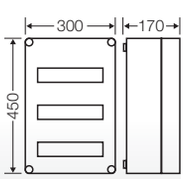


Mi 1338

36 modules: 3 x 12 x 18 mm
without PE and N terminal

- 3-row
- for installation of DIN rail equipment in accordance with DIN 43880
- with blanking strips for unused DIN rail openings
- order PE/N terminals separately
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed

IP 65 | PC | RAL 7035 | 2 / 4 Wall 4 / 2





Assembly example:
Removable DIN rail rack for earth connection

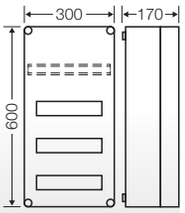


Mi 1446

36 modules: 3 x 12 x 18 mm
without PE and N terminal
with additional DIN rail



- 4-row
- with 1 DIN rail 216 mm wide (for installation depth of 72 mm)
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed



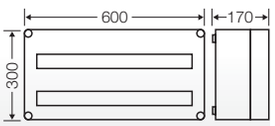


Mi 1455

56 modules: 2 x 28 x 18 mm
without PE and N terminal



- 2-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection



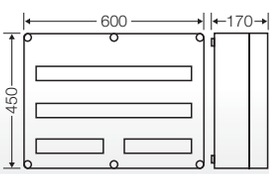


Mi 1683

80 modules: 2 x 28 x 18 mm and
2 x 12 x 18 mm
without PE and N terminal



- 3-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection



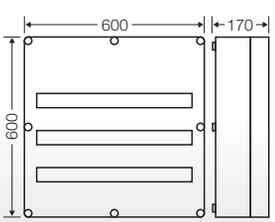


Mi 1885

84 modules: 3 x 28 x 18 mm
without PE and N terminal



- 3-row
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- cable entry only possible via flange





Assembly example:
Removable DIN rail rack for earth connection

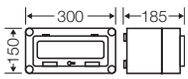


Mi 1119

12 modules: 1 x 12 x 18 mm
without PE and N terminal

IP 65 | PC | RAL 7035 | 2 / 1 Wall 1 / 2

- 1-row
- with 1 hinged flap
- hinged flap lockable with accessories
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed



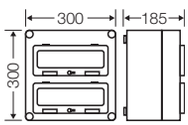


Mi 1229

24 modules: 2 x 12 x 18 mm

IP 65 | PC | RAL 7035 | 2 / 3 Wall 3 / 2

- 2-row
- with 2 hinged flaps
- hinged flap lockable with accessories
- for installation of DIN rail equipment in accordance with DIN 43880
- without PE and N terminal
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed



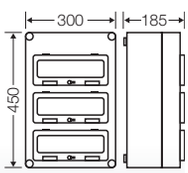


Mi 1339

36 modules: 3 x 12 x 18 mm
without PE and N terminal

IP 65 | PC | RAL 7035 | 2 / 4 Wall 4 / 2

- 3-row
- with 3 hinged flaps
- hinged flap lockable with accessories
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed



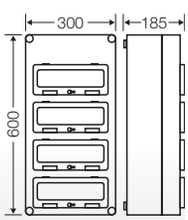


Mi 1449

48 modules: 4 x 12 x 18 mm
without PE and N terminal

IP 65 | PC | RAL 7035 | 2 / 5 Wall 5 / 3

- 4-row
- with 4 hinged flaps
- hinged flap lockable with accessories
- for installation of DIN rail equipment in accordance with DIN 43880
- order PE/N terminals separately
- with blanking strips for unused DIN rail openings
- lid fasteners for hand operation
- with removable DIN rail rack and earth connection
- DIN rail rack can be earthed





Assembly example:
Removable DIN rail rack for earth connection



Connection Box	349
Extension frames, DIN rails, spacers	350 - 351
Mounting plates, fixing screws	352 - 353
Covers, blanking strips	354 - 355
Terminals	356 - 358
Wall gasket, wall separator, fixing spares	359
Flanges	360 - 362
Pressure compensation element, canopy	363
Conversion kits for lid fasteners	364
Hinges for lids	365
Hinged flap, protection covers for hinged flaps	366
Components for wall mounting	367 - 368

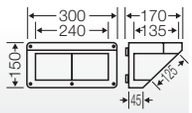


Mi CB 10

Connection Box



- for the installation of devices that must be operated externally, such as plug devices, push buttons and switches
- for mounting to box walls 300 mm
- hinged mounting area
- with wall gasket



Example:
The Connection Box allows a simple and fast installation of devices that must be operated externally.

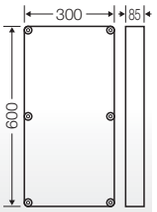




Mi ZR 4

Extension frame
for enclosure size 4

- for extension of the installation depth by 85 mm
- degree of protection IP 65 is maintained with use of up to two extension frames
- inclusive fixing material

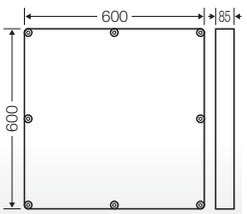




Mi ZR 8

Extension frame
for enclosure size 8

- for extension of the installation depth by 85 mm
- degree of protection IP 65 is maintained with use of up to two extension frames
- inclusive fixing material





Mi TS 15

DIN rail
length 134 mm

- in accordance with DIN EN 60715
- for Mi Empty box size 1
- for equipment or terminals with clip-on mounting
- with fixing screws





Mi TS 30

DIN rail
length 284 mm

- in accordance with DIN EN 60715
- for Mi empty box sizes 1 to 8
- for equipment or terminals with clip-on mounting
- with fixing screws





Mi TS 45

DIN rail
length 434 mm

- in accordance with DIN EN 60715
- for Mi empty box size 3
- for equipment or terminals with clip-on mounting
- with fixing screws





Mi TS 60

DIN rail
length 584 mm

- in accordance with DIN EN 60715
- for Mi empty box sizes 4 and 8
- for equipment or terminals with clip-on mounting
- with fixing screws





Mi DS 25

Spacer
height: 25 mm

- for spacing DIN-rails Mi TS ..
- 2 pieces
- with fixing screws for base of box and DIN rail



Mi DS 50

Spacer
height: 50 mm

- for spacing DIN-rails Mi TS ..
- 2 pieces
- with fixing screws for base of box and DIN rail

Mi MP 1

Mounting plate
W 259 x H 115 mm

- material thickness 4 mm
- for Mi-Empty boxes sizes 1, 2, 3, 4, 6
- with fixing screws

Lami-nated paper



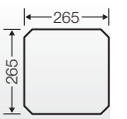


Mi MP 2

Mounting plate
W 265 x H 265 mm

- material thickness 4 mm
- for Mi-Empty boxes sizes 2, 3, 4, 6, 8
- with fixing screws

Lami-nated paper



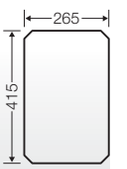


Mi MP 3

Mounting plate
W 265 x H 415 mm

- material thickness 4 mm
- for Mi-Empty boxes sizes 3, 4, 6
- with fixing screws

Lami-nated paper

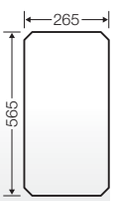


Mi MP 4

Mounting plate
W 265 x H 565 mm

- material thickness 4 mm
- for Mi-Empty boxes sizes 4, 6, 8
- with fixing screws

Lami-nated paper



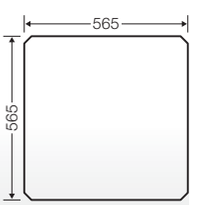


Mi MP 8

Mounting plate
W 565 x H 565 mm

- material thickness 4 mm
- for Mi Empty box size 8
- with fixing screws

Lami-nated paper





Mi BZ 11

Fixing screw
length 11 mm

- for assembling DIN rails or mounting plates at the base of the box
- for material thicknesses of 1 to 2.5 mm
- self-tapping
- galvanised



Mi BZ 13

Fixing screw
length 13 mm

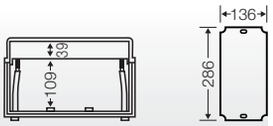
- for assembling DIN rails or mounting plates at the base of the box
- for material thicknesses of 2.5 to 4 mm
- self-tapping
- galvanised



Mi EP 01

Cover
for Mi empty box size 1

- for retrofitting
- cover without cut-outs made of plastics, as protection cover or for the installation of devices
- with fastening material

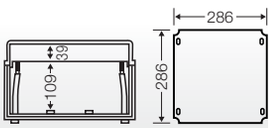




Mi EP 02

Cover
for Mi empty box size 2

- for retrofitting
- cover without cut-outs made of plastics, as protection cover or for the installation of devices
- with fastening material

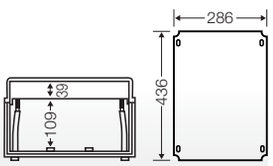




Mi EP 03

Cover
for Mi empty box size 3

- for retrofitting
- cover without cut-outs made of plastics, as protection cover or for the installation of devices
- with fastening material

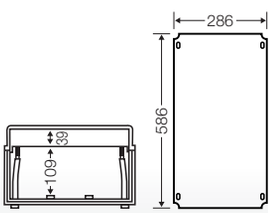




Mi EP 04

Cover
for Mi empty box size 4

- for retrofitting
- cover without cut-outs made of plastics, as protection cover or for the installation of devices
- with fastening material





AS 12

Blanking strip
12 modules

RAL 7035

- 12 x 18 mm, divisible every 9 mm
- for the covering of spare equipment openings, for material thickness up to 3 mm



AS 18

Blanking strip
18 modules

RAL 7035

- 18 X 18 mm, divisible every 9 mm
- for the covering of spare equipment openings, for material thickness up to 3 mm



DAE 12

Spacer

RAL 7035

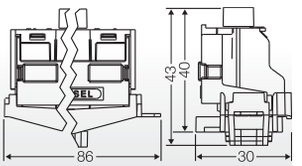
- for improvement in the heat dissipation of DIN rail mounted devices
- consisting of 12 items



FC L 10

Terminal
2 x 25 mm², 8 x 4 mm², Cu

- for installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm
- FIXCONNECT® plug-in technology, for terminal technology refer to index technical data
- current carrying capacity: 75 A

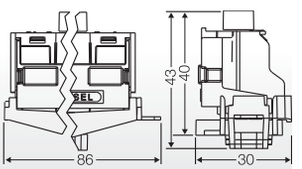




FC N 10

N terminal
2 x 25 mm², 8 x 4 mm², Cu

- for installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm
- FIXCONNECT® plug-in technology, for terminal technology refer to index technical data
- current carrying capacity: 75 A

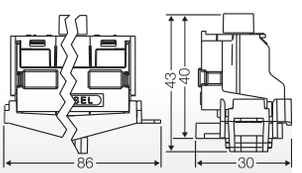




FC PE 10

PE terminal
2 x 25 mm², 8 x 4 mm², Cu

- for boxes with 1 x 12 modules (through terminal reduction to 9 modules)
- for installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm
- FIXCONNECT® plug-in technology, for terminal technology refer to index technical data
- current carrying capacity: 75 A

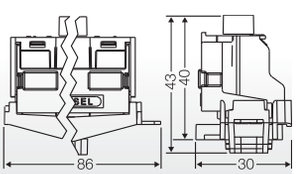




FC PN 10

PE and N terminal
per PE/N 1 x 25 mm², 4 x 4 mm² Cu

- for installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm
- FIXCONNECT® plug-in terminal technology, for terminal technology refer to technical data
- current carrying capacity: 75 A





FC BS 5

FIXCONNECT® labelling system
set with 5 pieces

- labelling system for FIXCONNECT® plug-in terminals, not for terminals 2x25 / 4x4 mm²
- for attaching of labelling strips or marking with felt tip pen



FC PN 30

PE and N terminal
per PE/N 3 x 25 mm², 12 x 4 mm², Cu

- 1-row
- FIXCONNECT® plug-in technology, for terminal technology refer to index technical data
- current carrying capacity: 75 A

PE+N x cross section	3 x 25 mm² 12 x 4 mm² 1-row
conductor material	Cu



FC PN 60

PE and N terminal
per PE/N 6 x 25 mm², 24 x 4 mm², Cu

- 2-row
- FIXCONNECT® plug-in technology, for terminal technology refer to index technical data
- current carrying capacity: 75 A
- Not applicable in boxes Mi 1456, Mi 1455, Mi 1884 and Mi 1885

PE+N x cross section	6 x 25 mm² 24 x 4 mm² 2-row
conductor material	Cu



FC N 30

N terminal
per N 6 x 25 mm², 24 x 4 mm², Cu

- 1-row
- FIXCONNECT® plug-in technology, for terminal technology refer to index technical data
- current carrying capacity: 75 A

number x cross-section per N	6 x 25 mm² 24 x 4 mm² 1-row
conductor material	Cu



FC PE 30

PE terminal
per PE 6 x 25 mm², 24 x 4 mm², Cu

- 1-row
- FIXCONNECT® plug-in technology, for terminal technology refer to index technical data
- current carrying capacity: 75 A

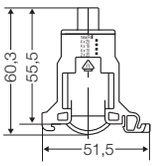
number x cross-section per PE	6 x 25 mm² 24 x 4 mm² 1-row
conductor material	Cu



KKL 25

Connecting terminal
Rated connecting capacity: 6-35 mm², Cu

- as a connecting terminal
- for installation on DIN rails in accordance with IEC 60 715, top hat profile 35 mm
- current carrying capacity: 102 A
- 1-pole 6 x 6 mm² sol, 6 x 10 mm² sol/ f*, 4 x 16 mm² s/ f*, 4 x 25 mm² s/ f*, 2 x 35 mm² s/ f* each
  f* = with gas-tight end ferrule
- with two connected clamping units



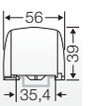
rated insulation voltage	Ui = 690 V a.c./d.c.
dismantling length	16 mm
tightening torque for terminal	3.0 Nm



KKL 34

Main line branch terminal
per pole 4 x 1.5-25 mm² as L1-L3, Cu

- 3-pole as connecting terminal 25 mm²
- for installation on DIN rails in accordance with IEC 60 715, top hat profile 35 mm
- current carrying capacity: 80 A
- width: 61 mm

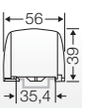




KKL 48

Main line branch terminal
per pole 4 x 1.5-25 mm² as L1-L3;
8 x 1.5-25 mm², as N, Cu

- 4-pole as connecting terminal 25 mm²
- for installation on DIN rails in accordance with IEC 60 715, top hat profile 35 mm
- current carrying capacity: 80 A
- width: 100 mm

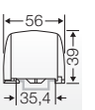




KKL 54

Main line branch terminal
per pole 4 x 1.5-25 mm² as L1-L3;
4 x 1.5-25mm² as N;
4 x 1.5-25 mm² as PE, Cu

- 5-pole as connecting terminal 25 mm²
- for installation on DIN rails in accordance with IEC 60 715, top hat profile 35 mm
- current carrying capacity: 80 A
- width: 100 mm

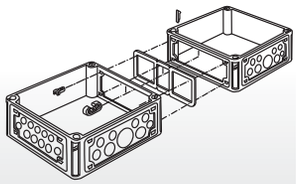




Mi WD 2

Wall gasket
for box walls 150/300 mm

- for the assembly of Mi boxes
- consisting of 1 seal, 4 wedge links, 1 bracket





Mi WT 1

Wall separator

- for subdivision of 300 mm box walls into 2 x 150 mm in case of flange or box assembly



Mi BE

Fixing spares
4 connectors

- for the assembly of Mi boxes
- when converting existing installations

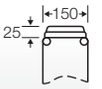


Mi FP 15

Flange
without knockouts

- box wall 150 mm
- with fixing wedges and seal

mounting width	65 mm
mounting height	88 mm





Mi FM 15

Flange
knockouts 3 x M 20, 1 x M 32/40/50

- box wall 150 mm
- with fixing wedges and seal



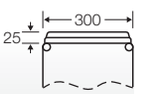


Mi FP 20

Flange
without knockouts

- box wall 300 mm
- with fixing wedges and seal

mounting width	215 mm
mounting height	88 mm

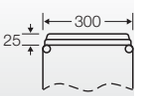




Mi FM 20

Flange
knockouts 15 x M 16, 15 x M 20

- box wall 300 mm
- with fixing wedges and seal

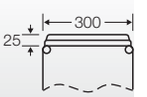




Mi FM 25

Flange
knockouts: 19 x M 16/25

- box wall 300 mm
- with fixing wedges and seal

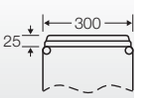




Mi FM 32

Flange
knockouts: 8 x M 25/32, 1 x M 25/32/40

- box wall 300 mm
- with fixing wedges and seal

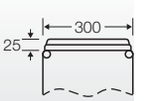




Mi FM 40

Flange
knockouts: 2 x M 25/32, 5 x M 32/40

- box wall 300 mm
- with fixing wedges and seal

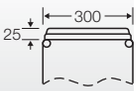




Mi FM 50

Flange
knockouts: 2 x M 20, 4 x M 32/40/50

- box wall 300 mm
- with fixing wedges and seal

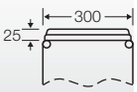




Mi FM 60

Flange
knockouts: 3 x M 40/50/63

- box wall 300 mm
- with fixing wedges and seal



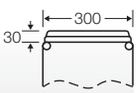


Mi FP 38

Flange
sealing range Ø 7-29 mm

- cable entry via integrated elastic membranes
- sealing range: 29 x Ø 7-12 mm, 4 x Ø 7-14 mm, 4 x Ø 11-20 mm, 1 x Ø 16-29 mm
- box wall 300 mm
- with fixing wedges and seal

IP 65



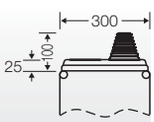


Mi FP 70

Flange
sealing range: 1 x Ø 30-72 mm

- box wall 300 mm
- with fixing wedges and seal

IP 65



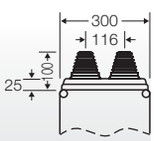


Mi FP 72

Flange
sealing range: 2 x each Ø 30-72 mm

- box wall 300 mm
- with fixing wedges and seal

IP 65

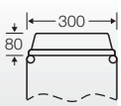




Mi FM 63

Flange with cable arrangement space
knockouts: 3 x M 40/50/63

- box wall 300 mm
- with fixing wedges and seal

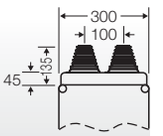




Mi FP 82

Cable insert
sealing range: 2 x each Ø 30-72 mm

- box wall 300 mm
- divisible for cable insertion from the front
- degree of protection IP 54 only with additional strain and pressure relief (e.g. Mi ZE 62)





KST 82

Stepped grommet
sealing range: Ø 30-72 mm

TPE RAL 7035

- for retrofitting of cable insertion Mi FP 82
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25° to + 35 °C



Mi FP 30

Metal insert for flanges



TPE RAL 7035

- for earthing of metal armoured cables
- box wall 300 mm
- without knockouts



Mi ZE 62

Cable strain relief
for 2 cables with max. 60 mm external diameter

- with fixing rail 284 mm long
- to be used only in connection with cable insertion Mi FP 82



Mi GS 30

Box fin
for inserting cables across 2 boxes

- for box walls 300 mm
- removable
- can be retrofitted

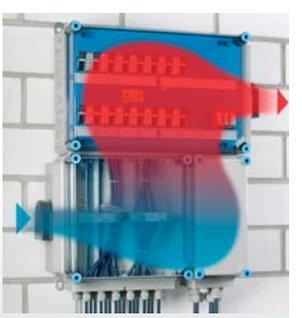


Mi BF 44

IP 44

Ventilation flange
for vertical installation on box walls

- box wall 300 mm
- for ventilation of Mi-Distribution boards in the event of extremely high internal temperatures or a risk of water condensation





BE 44

IP 44

Ventilation insert

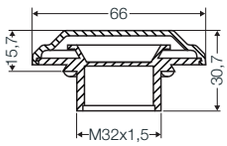


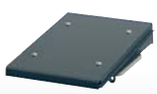
BM 32

Pressure compensation element for M 32 knockouts

IP 65 | ASA/PC Blend | RAL 7016

- for the reduction of condensation by pressure compensation in power distribution systems
- ISO thread M 32 x 1.5
- bore-hole: Ø 32.3 mm
- wall thickness of up to 8 mm
- with counter nut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25° to + 55 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one pressure compensation element BM 32 must be used per 42 litres (42000 cm³) of enclosure volume.
- Example: enclosure size 30 cm x 60 cm x 17 cm = 30600 cm³ = 30,6 litres. Number of necessary BM 32 (M32) = 1 piece
- technical changes reserved



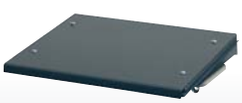


Mi DB 15

Canopy for box wall 150 mm

- with fixing wedges and seal
- suitable for outdoor installation, UV resistant



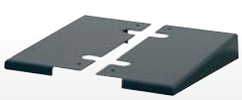


Mi DB 30

Canopy for 300 mm box walls

- with fixing wedges and seal
- suitable for outdoor installation, UV resistant





Mi DB 01

Canopy end plate

- for canopies FP DB xx and Mi DB xx



Pressure compensation element BM 32



Canopy





Mi PL 2

Sealing cap

- 2 sealing caps for converting the lid fasteners



Mi SR 4

Conversion set
for manual operation on tool operation

- 4 fastening covers



Mi SN 4

Conversion set
for converting lid fasteners from tool to manual operation

- 4 manual actuators



Mi DV 01

Locking device insertion

- only in connection with Mi PL 2, Mi SR 4 or Mi SN 4



Mi ZS 11

Lid lock
with locking device I

- Is being used instead of fasteners for hand or tool operation in order to prevent unauthorised opening of the lids
- consisting of: cylinder lock, keys, locking device insertion, dust cover



Mi ZS 12

Lid lock
with locking device II

- Is being used instead of fasteners for hand or tool operation in order to prevent unauthorised opening of the lids
- consisting of: cylinder lock, keys, locking device insertion, dust cover



Mi DR 04

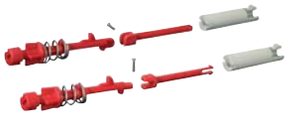
Lid fastener for tool operation
triangle 8 mm

- is used instead of fasteners for hand- or tool operation, in order to make unauthorized opening of lids more difficult
- 4 locking devices with triangle 8 mm and key



DS 1

Triangular key 8 mm



Mi ZS 20

Mi hinge for lids
for Mi boxes sizes 1, 2, 3, 4

- for operating installation device within a large area. The lid keeps permanently connected to the box.
- when assembling several boxes, the insertion can only be carried out for the external boxes.



Mi ZS 40

Mi hinge for lids
for Mi boxes sizes 1 to 8

- for operating installation device within a large area. The lid keeps permanently connected to the box.
- wall connectors or flanges are necessary for assembly
- not applicable in boxes with covers



Mi ZS 60

Mi hinge for lids
for Mi boxes sizes 4 and 8
with extension frame

- for operating installation device within a large area. The lid keeps permanently connected to the box.
- wall connectors or flanges are necessary for assembly
- not applicable in boxes with covers

Example:
Mi hinges for lids enable to operate installation device within a large area





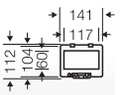


Mi KL 6

Hinged flap
opening dimensions 117 x 60 mm

IP 65

- with drill and saw template
- modules 1 x 6 x 18 mm
- sealable
- lockable with hinged flap lock
- inclusive fixing material
- wall thickness 1.5-4.5 mm



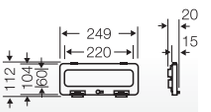


Mi KL 12

Hinged flap
opening dimensions 220 x 60 mm

IP 65

- with drill and saw template
- modules 1 x 12 x 18 mm
- sealable
- lockable with hinged flap lock
- inclusive fixing material
- wall thickness 1.5-4 mm



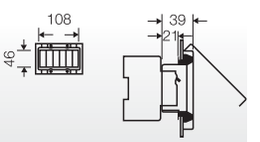


Mi BS 6

Protection cover
for Mi KL 6

- with fixing screws

modules	6 1 x 6 x 18 mm



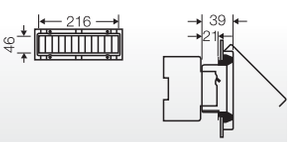


Mi BS 12

Protection cover
for Mi KL 12

- with fixing screws

modules	12 1 x 12 x 18 mm





Mi SK 01

Hinged flap lock

- for retrofitting in hinged flaps of 6 or 12 modules width
- for protecting the switchgear located behind the hinged flap against unauthorised access
  (only effective in connection with lid lock Mi ZS ..)
- consisting of: 1 lock (Mi KL), 2 keys, 1 grooved pin

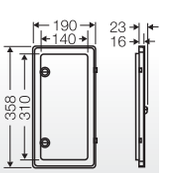


NZ KL 54

KWH meter window flap
standard opening dimensions 140 x 310 mm

IP 54

- in accordance with DIN 43 870
- for tool or manual operation
- can be locked with padlock (clip diameter max. 6 mm)
- complete with screws
- sealable





Mi SA 2

Dust protection cover

- for box sizes 1 to 4
- for 2 lid fittings



Mi AL 40

4 stainless steel external brackets

- for external fixing of enclosures

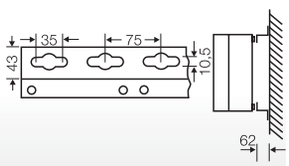


Mi MS 2

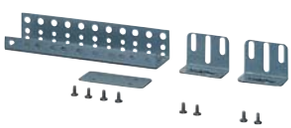
RAL 7016

Profile for wall mounting

- for Mi distribution board assemblies up to 900 x 1200 mm
- with 8 screws M6 x 16, washers and nuts for mounting enclosures



length	1950 mm
material	sendzimir galvanised steel profile with structured powder coating



MX 0101

Sheet steel RAL 7016

Mounting profile set
U-profile for constructing a mounting frame

- constisting of:
  1 x mounting rail, 2 x fixing brackets,
  1 x flat connector with connecting screws

length	1950 mm
material	sheet steel, galvanised and powder-coated

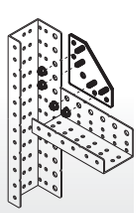


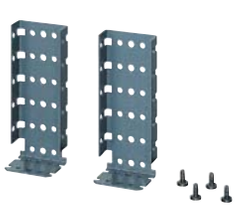
MX 0112

Sheet steel

Frame connector set
for constructing a mounting frame

- fixing elements for T or L connections
- consisting of: 2 couplers with screws and nuts





MX 0105

Sheet steel RAL 7016

Coupler set
for constructing a mounting frame

- 2 x couplers with connecting screws

material	sheet steel, galvanised and powder-coated

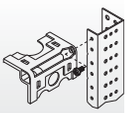




MX 0111

Screw for box fixing

- set with 12 pieces
- M 6 x 16
- self-tapping for fixing the Mi box onto mounting profile MX 0101





Varnishing pen RAL 7016

12 ml

RAL 7016



Operating and ambient conditions	370
Standards and regulations	371
Dimensions in mm	372
Terminal technology PE and N terminals	373
Rated power dissipation of empty boxes	374 - 375
Opening enclosure walls, assembly	376
Flanges, cable entry	377
Cable insertion, extension frame	378
Device installation, mounting plates, DIN rails, covers	379 - 380
Wall mounting, floor-standing	381

	Empty enclosures Mi 0... Mi 9...	Circuit breaker boxes Mi 1...
Application area	**Suitable for indoor installation and outdoor installation, protected against weather influences** However, pay attention to the climatic effects on the installed equipment , for example, high or low ambient temperatures or formation of condensed water see technical information	
	Resistance to occasional cleaning procedures (direct jet) with high-pressure cleaner without cleaning additives, water pressure: max 100 bar, water temperature: Max. 80 °C, distance => 0.15 m, in accordance with IP 69K requirements, single enclosure without lid equipment (no enclosure assembly), **enclosure and cable glands at least IP 65.**	
Ambient temperature - Average value over 24 hours - Maximum value - Minimum value	– + 70 °C – 25 °C	+ 35 °C + 40 °C – 5 °C The ambient temperature is reduced at distribution boares by the installed equipment technology!
Relative humidity - short-time	– –	50% at 40 °C 100% at 25 °C
Fire protection in the event of internal faults	Demands placed on electrical devices from standards and laws: Minimum requirements - Glow wire test in accordance with IEC 60 695-2-11: - 650 °C for boxes and cable glands - 850 °C for conducting components	
Burning behaviour - Glow wire test IEC 60 695-2-11 - UL Subject 94	 960 °C V-2 flame-retardant self-extinguishing	 960 °C V-2 flame-retardant self-extinguishing
Degree of protection against mechanical load	IK 08 (5 Joule)	IK 08 (5 Joule)
Toxic behaviour	halogenfree [1] silicone-free	halogenfree [1] silicone-free

[1] “Halogen-free” in accordance with IEC 60754-2 “Common test methods for cables - Determination of the amount of halogen acid gas”.

For material properties see technical data.

Mi Distribution Boards comply with the requirements of the IEC 61439-2

Distribution boards assembled and wired according to manufacturer data without essential deviations from the original type or system.

To meet these requirements for Hensel Mi Distribution Boards, the following must be noted:

1. The distribution boards must consist of the verified enclosures documented in this list.

2. The wiring of the equipment must be carried out with the cross-sections and conductor types indicated in Table “Rating of insulated conductors in switchgear assemblies”, Index Technics.

3. Once the distribution board is completed, a routine test must be carried out in accordance with this standard.

4. The test must be certified with a test report.

5. The assembly must be provided with a manufacturer’s identification mark.
   Compliance with important data such as
   - limit of temperature rise
   - dielectric strength
   - IP degrees of protection
   - creepage distances and clearances
   is verified for this system.

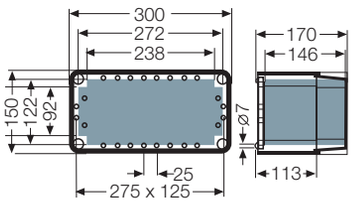
Standards and regulations

- IEC 61439-2
  Low-voltage switchgear and controlgear assemblies –
  Part 2: Power switchgear and controlgear assemblies
- IEC 60999, connecting devices
  Safety requirements for screw-type and screwless-type clamping units
  for electrical copper conductors
- DIN EN 50262
  Metric threaded cable glands for electrical installations
- DIN 43880
  Built-in equipment for electrical installations; overall dimensions
  and related mounting dimensions
- IEC 60529
  Degrees of protection provided by enclosures (IP-Code)

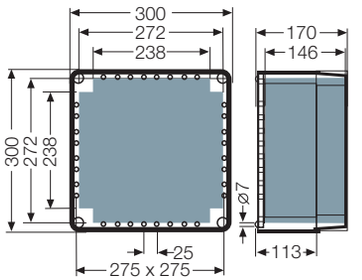
Dimensions of the interior installation depth with installed mounting plates.

The width of Mi Empty boxes Mi 9... enlarges about 15 mm because of the laterally mounted lid hinges, refer to product pages.

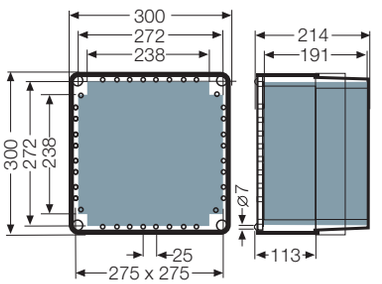
= usable installation space with mounted cable glands



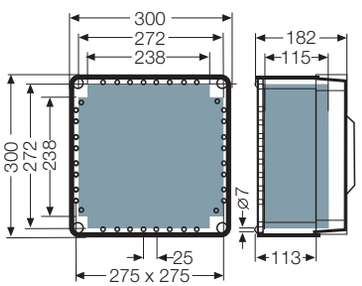
Mi 0100
Mi 0101
Mi 9100
Mi 9101



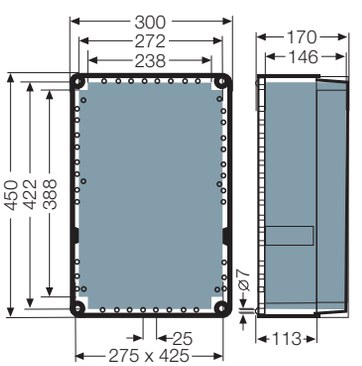
Mi 0200
Mi 0201
Mi 9200
Mi 9201



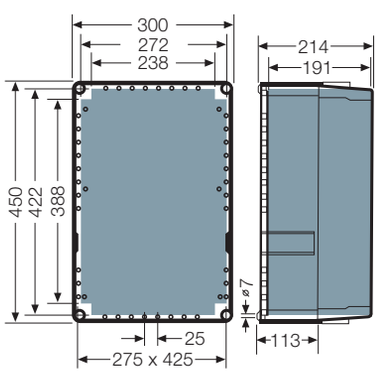
Mi 0210
Mi 0211
Mi 9210
Mi 9211



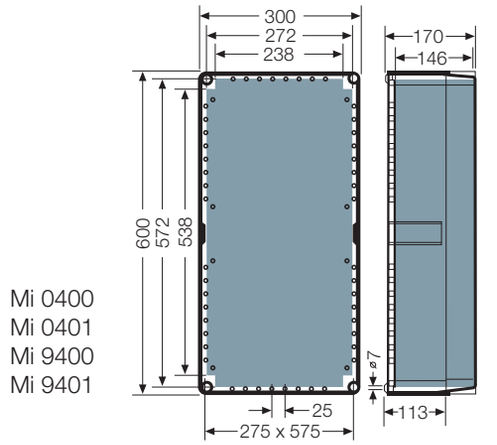
Mi 0220
Mi 0221



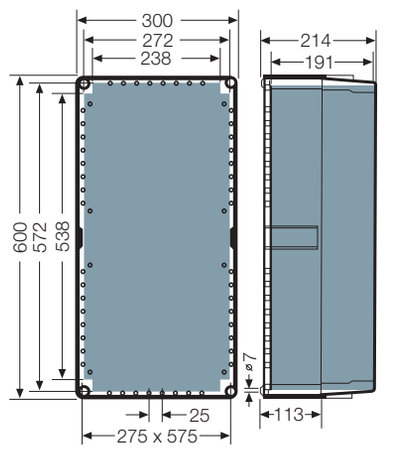
Mi 0300
Mi 0301
Mi 9310
Mi 9311



Mi 0310
Mi 0311
Mi 9310
Mi 9311

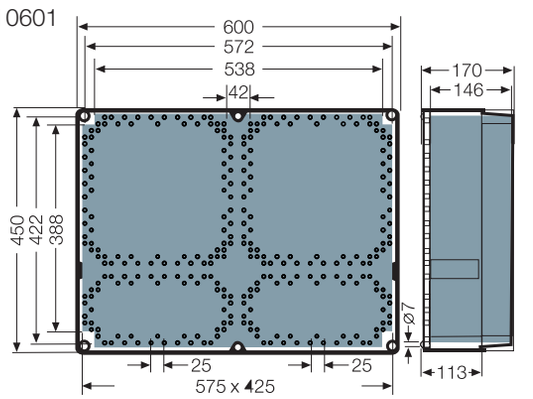


Mi 0400
Mi 0401
Mi 9400
Mi 9401

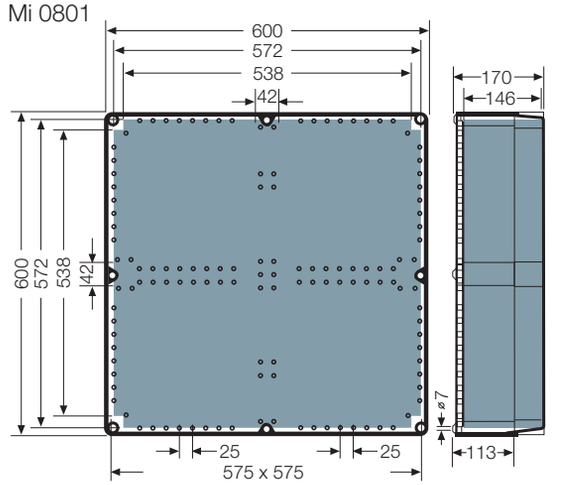


Mi 0410
Mi 0411
Mi 9410
Mi 9411

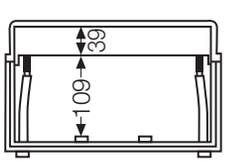
Mi 0600
Mi 0601



Mi 0800
Mi 0801



Installation of equipment in protection plates:
Pre-drill the sections at the corners, then saw away the section from the protection plate by using a piercing saw at middle to low cutting speed.
Use coarse toothed saw blades for plastics (e.g. Bosch T 101 B).

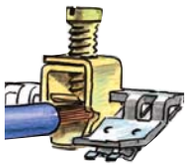


PE und N

FIXCONNECT®-Klemme

Rated connecting capacity of PE and N terminals

Current carrying capacity:
75 A

Clamping unit	Corresponding cross-sections / copper			
	max. number	from - to max.	max. number	from - to max.
 Screw-type terminal 25 mm²	1	25 mm², s	1	25 mm², f
	1	16 mm², s	1	16 mm², f
	1	10 mm², sol	1	10 mm², f
	3	6 mm², sol	1	6 mm², f
	3	4 mm², sol	1	4 mm², f
	4	2.5 mm², sol	1	2.5 mm², f
	4	1.5 mm², sol	1	1.5 mm², f
	Tested as connecting terminal for several conductors of the same cross-sections for using in one circuit			
 Plug-in terminal 4 mm²	1	1.5 - 4 mm², sol	1	1.5 - 4 mm², f Without end ferrule; clamping unit has to be opened with a tool when conductor is inserted.

Terminal equipment and number of conductors to be connected

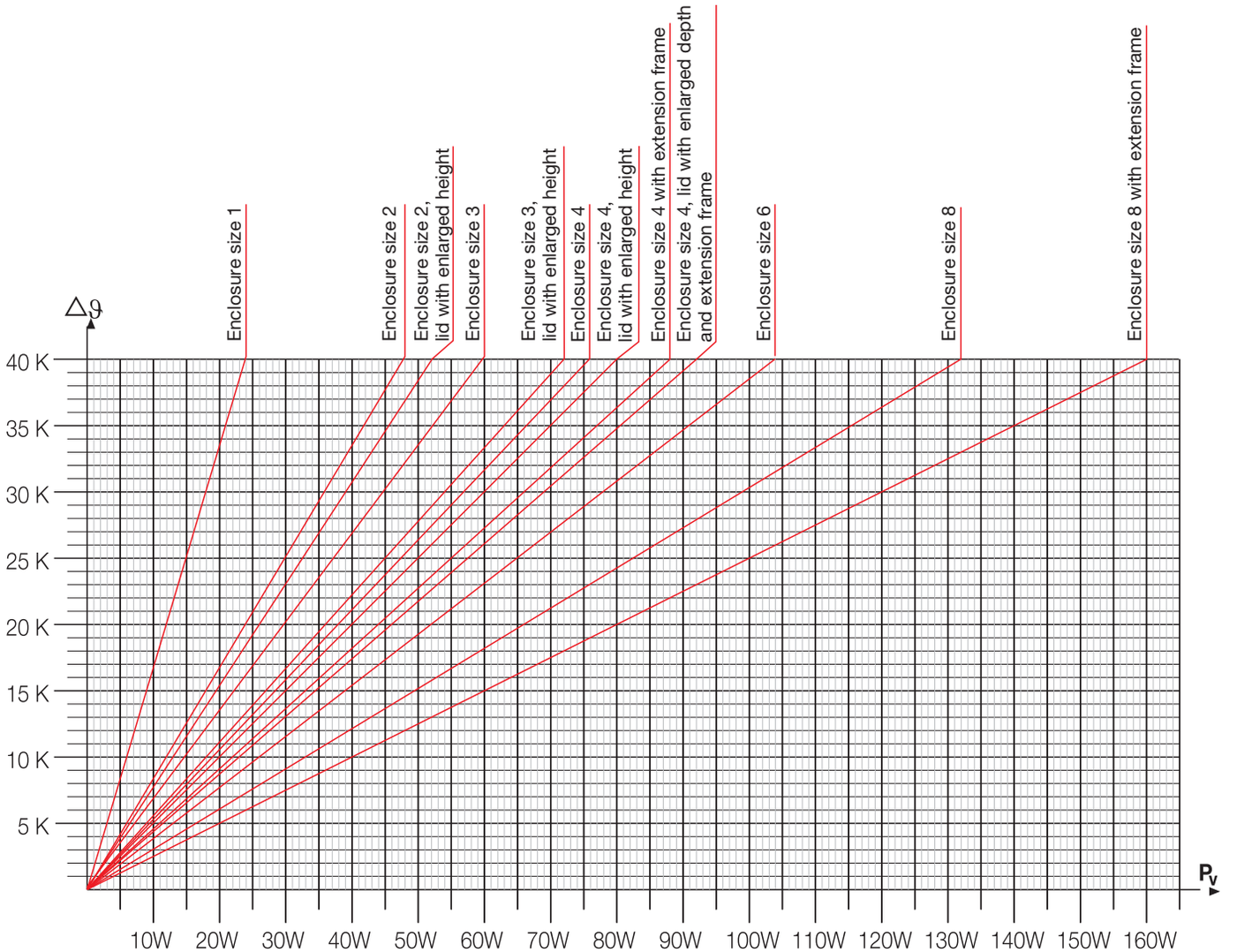
PE terminal

Number of modules	Mounted in Mi Circuit breaker boxes	PE terminal	
		up to 4 mm²	up to 25 mm²
24 (2-row)	Mi 1224 Mi 1220 Mi 1222	 12x4 mm²	2x25 mm²
36 (3-row) 48 (4-row)	Mi 1336 Mi 1333 Mi 1448 Mi 1444	 24x4 mm²	6x25 mm²

N terminal

Number of modules	Mounted in Mi Circuit breaker boxes	N terminal		
		up to 4 mm²	up to 25 mm²	plug-in jumper
24 (2-row)	Mi 1224 Mi 1220 Mi 1222	 12x4 mm²	3x25 mm²	
36 (3-row) 48 (4-row)	Mi 1336 Mi 1333 Mi 1448 Mi 1444	 24x4 mm²	6x25 mm²	

Temperature rise (Δϑ) with Mi-Distribution boards by power dissipation of electrical devices



Mi distribution boards enclosure sizes	dimensions (WxHxD) in mm	rated power dissipation P_{ab} in Watt per Kelvin assembled enclosures
enclosure size 1	300 x 150 x 170	0.6
enclosure size 2	300 x 300 x 170	1.2
enclosure size 2, lid with enlarged depth	300 x 300 x 214	1.3
enclosure size 3	300 x 450 x 170	1.5
enclosure size 3, lid with enlarged depth	300 x 450 x 214	1.8
enclosure size 4	300 x 600 x 170	1.9
enclosure size 4, lid with enlarged depth	300 x 600 x 214	2.0
enclosure size 4 with extension frame	300 x 600 x 255	2.2
enclosure size 4, lid with enlarged depth and extension frame	300 x 600 x 299	2.3
enclosure size 6	450 x 600 x 170	2.6
enclosure size 8	600 x 600 x 170	3.3
enclosure size 8 with extension frame	600 x 600 x 255	4.0

Note!

The maximally permissible operating temperature inside the enclosures (J_{imax}) is determined by:

1st maximally permissible ambient temperature of the installed electrical devices (please consider data of the equipment manufacturers)

2nd category temperature of the internal wiring and the inserted cables

3rd temperature resistance of the enclosure materials and the cable entries etc.

Example: calculation of the maximum rated power dissipation (P_V)	
maximally permissible operating temperature inside the enclosure(s) (ϑ_{imax}):	e.g. 55 °C
ambient temperature of the enclosure(s) (ϑ_U):	25 °C
maximally permissible heating up inside the enclosure:	$\Delta\vartheta = \vartheta_{imax} - \vartheta_U$ = 55 °C - 25 °C = 30 K
maximum permissible power dissipation of the installed equipment inclusive wiring (P_V) in accordance with diagram:	enclosure size 3 (450 x 300 x 170 mm)
assembled enclosures:	P_V = 45 W

Example: calculation of the operating temperature inside the enclosure (ϑ_i)	
ambient temperature of the enclosure(s) (ϑ_U):	25 °C
rated power dissipation of the installed electrical equipment (P_V):	30 W
heating up inside the enclosures in accordance with diagram over:	$\Delta\vartheta$
enclosure size 3 (450 x 300 x 170 mm) assembled enclosures:	$\Delta\vartheta$ = 17 K; $\vartheta_i = \vartheta_U + \Delta\vartheta$ = 25 °C + 17 K = 42 °C

Assembly of Mi distribution boards according to assembly draft

Pre-assembled and tested enclosures with electrical functions



Knock out of box walls for electrical connection and cable entry

Box walls are knocked out for the electrical connection within the distribution board.

For the assembly of the enclosures, the appropriate openings of the wedge joints are knocked out as well.





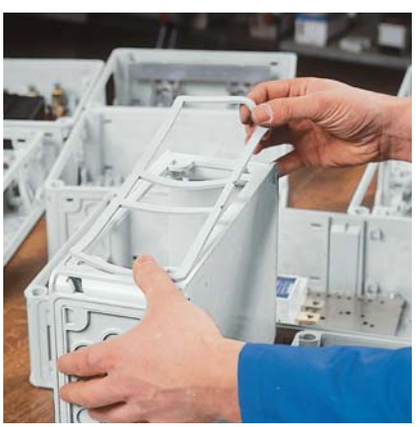
Assembly of boxes

For sealing the boxes in position , a self-adhesive wall gasket is stuck to the box wall (applies to closed box walls, too.)

The box assembly is carried out by a wedge connection.

To increase stability, press wall clamps onto the box fins.

Use a wall separator for subdividing 300 mm box walls into two 150 mm walls for flange or box mounting.



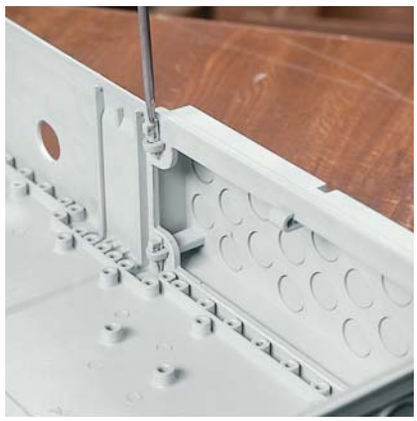






Flanges

Attach flanges by means of 4 wedge links and 1 clamp to the box wall.

Cable entry

Knock out the appropriate cable entries within flanges or box walls with screwdriver.




Cable glands

Insert cable gland into the appropriate knockout and fasten with lock nut.




Assembly of cable insertion

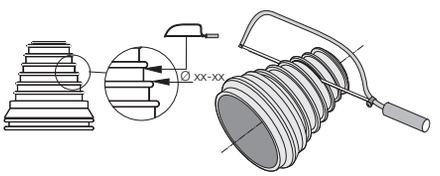
Knock out the respective box wall and saw out the upper box fin next to the wedge fastening.



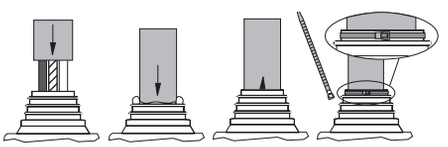


Screw mount the cable insertion and insert the rubber entries.

Adjust stepped grommet on the cable diameter.



Insert cable and fix it with cable ties.



Insert the cable into the box from the front.



Installation of extension frame

Fix attachments for extension frame in base of enclosure.



Right:
Place extension frame on base of enclosure.

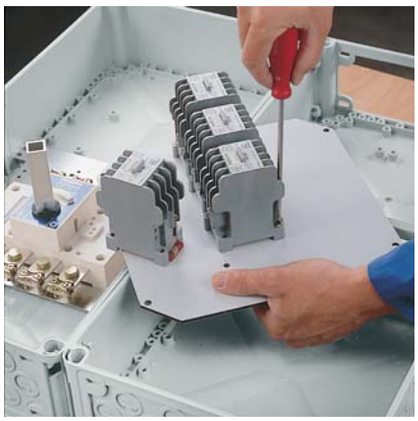


Fix extension frame with screws onto base of enclosure.



Device installation on mounting plates or DIN rails

Fasten installation devices on mounting plates with self-threading screws.



Screw mounting plate onto base of box.

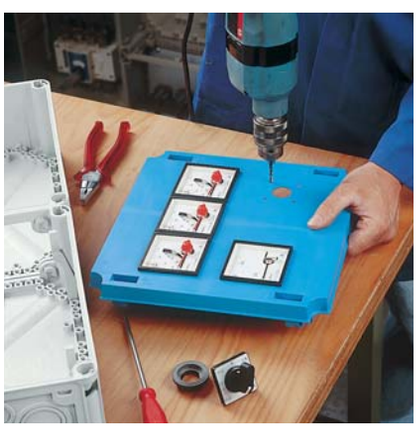
Mount DIN rails directly onto base of boxes or on spacers Mi DS .. in heights of 25 or 50 mm.





Installaton of equipment in cover plates

Pre-drill the sections at the corners and saw out with piercing saw. Use saw blades with rough teeth for plastics.





Screw support for the protection cover Mi EP .. onto base of box.

Attach protection cover.

Close unused equipment openings in protection covers with attached blanking strips.





Device installation in circuit breaker boxes

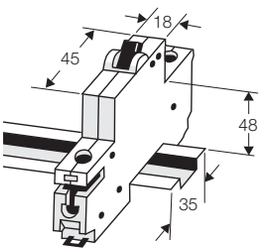
Circuit breaker boxes can be fitted with any DIN rail equipment, if per row (12 modules 12x18 mm) the assigned backup fuse won‘t exceed 80 A.

PE and N terminals for copper conductors (installed)



Note to Mi Circuit breaker boxes:
Spare equipment openings in protection covers are to be covered with blanking strips to prevent accidental contact (blanking strips are enclosed for 50 % of equipment openings)

Dimension of 1 module:
1 Module = 18 mm



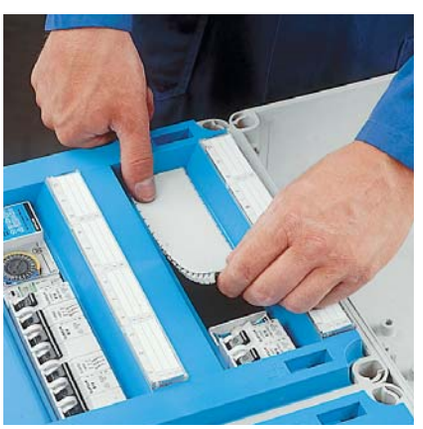
Dimensions according to DIN 43880 for DIN rail mounted device

Protection covers

Cover unused equipment openings with blanking strips to prevent accidental contact.

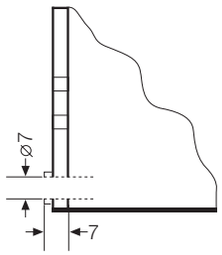
Provide for total protection against access to hazardous parts for accessible devices and busbar-mounted equipment.

Protection class II, ⧈
(Total insulation)



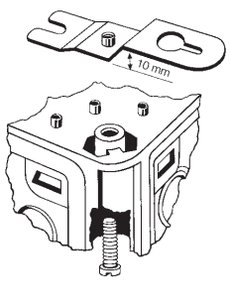


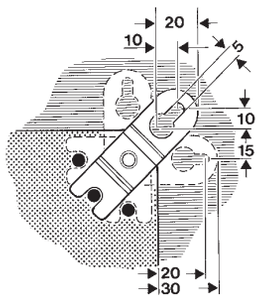
Wall mounting
directly through the base of the box



External brackets
for external box fixing
Mi AL 40 (4 brackets)







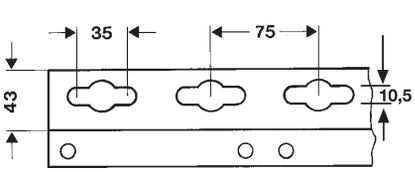
Mounting profile
for wall-mounted installation of Mi-Distribution boards, steel profile, 1950 mm long, dividable in the grid of 150 mm.
Mi MS 2



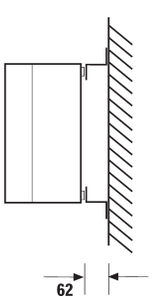


Note:
Please fix mounting profile in vertical position to enable a cable routing behind the assembly.

For cutting the required profile length fix mounting profile eg with a clamp to a desk.



Fixing matrix of mounting profile



Transport
Regarding transportation its recommendable to protect the assembly against deflection. For that please screw the assembly to a solid timber.



LES
Cable entry systems

Grommets ESM, IP 54
for knockouts M 16 to M 40 384

Stepped grommets STM, IP 55
for knockouts M 16 to M 40 385

Grommets EDK , IP 65
for knockouts M 16 to M 40 386

Grommets EDR for conduits , IP 65
for knockouts M 16 to M 40 387

Cable glands AKM, IP 66/67
for knockouts M 12 to M 63 388 - 389

Cable glands AFM, IP 65
for knockouts M 16 to M 32 390 - 391

Cable glands ASS, IP 66/67
for knockouts M 12 to M 63 392 - 393

Combi climate glands, IP 66/67
for knockouts M 20 to M 40 394 - 398

Sealing plug VSB 399

Pressure compensation element BM 32 400

Stepped grommet, flange, cable retention 401

Outside diameter of conventional cable cross sections, assignment of cable outside diameters to cable entries 402

Cable glands AKS, IP 65
for knockouts Pg 9 to Pg 48 403 - 404

Technical Details 405 - 407

Info **Further technical information can be found on the Internet**
www.hensel-electric.de -> Products



ESM 16

Grommets
for knockouts M 16

IP 55 | TPE | RAL 7035

- sealing range: Ø 4.8-11 mm
- bore-hole: Ø 16.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



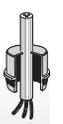


ESM 20

Grommets
for knockouts M 20

IP 55 | TPE | RAL 7035

- sealing range: Ø 6-13 mm
- bore-hole: Ø 20.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C





ESM 25

Grommets
for knockouts M 25

IP 55 | TPE | RAL 7035

- sealing range: Ø 9-17 mm
- bore-hole: Ø 25.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C





ESM 32

Grommets
for knockouts M 32

IP 55 | TPE | RAL 7035

- sealing range: Ø 9-23 mm
- bore-hole: Ø 32.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



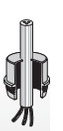


ESM 40

Grommets
for knockouts M 40

IP 55 | TPE | RAL 7035

- sealing range: Ø 17-30 mm
- bore-hole: Ø 40.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C





STM 16

Stepped grommet for knockouts M 16

IP 55 | TPE | RAL 7035

- sealing range: Ø 3.5-12 mm
- bore-hole: Ø 16.5 mm
- wall thickness 1.5-4 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



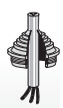


STM 20

Stepped grommet for knockouts M 20

IP 55 | TPE | RAL 7035

- sealing range: Ø 5-16 mm
- bore-hole: Ø 20.5 mm
- wall thickness 1.5-4 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



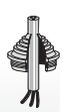


STM 25

Stepped grommet for knockouts M 25

IP 55 | TPE | RAL 7035

- sealing range: Ø 5-21 mm
- bore-hole: Ø 25.5 mm
- wall thickness 1.5-4 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



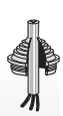


STM 32

Stepped grommet for knockouts M 32

IP 55 | TPE | RAL 7035

- sealing range: Ø 13-26.5 mm
- bore-hole: Ø 32.5 mm
- wall thickness 1.5-4 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



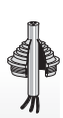


STM 40

Stepped grommet for knockouts M 40

IP 55 | TPE | RAL 7035

- sealing range: Ø 13-34 mm
- bore-hole: Ø 40.5 mm
- wall thickness 1.5-4 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



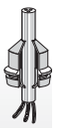


EDK 16

Grommets
for knockouts M 16

IP 65 | TPE | RAL 7035

- sealing range: Ø 5-10 mm
- bore-hole: Ø 16.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



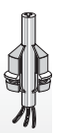


EDK 20

Grommets
for knockouts M 20

IP 65 | TPE | RAL 7035

- sealing range: Ø 6-13 mm
- bore-hole: Ø 20.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



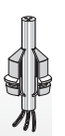


EDK 25

Grommets
for knockouts M 25

IP 65 | TPE | RAL 7035

- sealing range: Ø 9-17 mm
- bore-hole: Ø 25.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



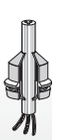


EDK 32

Grommets
for knockouts M 32

IP 65 | TPE | RAL 7035

- sealing range: Ø 8-23 mm
- bore-hole: Ø 32.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



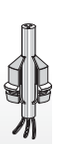


EDK 40

Grommets
for knockouts M 40

IP 65 | TPE | RAL 7035

- sealing range:Ø 11-30 mm
- bore-hole: Ø 40.5 mm
- wall thickness 1.5-3.5 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



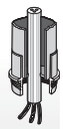


EDR 16

Grommets for conduits for knockouts M 16

IP 65 | TPE | RAL 7035

- conduit connection M 16
- bore-hole: Ø 16.5 mm
- wall thickness 1.5-3.2 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



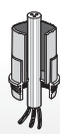


EDR 20

Grommets for conduits for knockouts M 20

IP 65 | TPE | RAL 7035

- conduit connection M 20
- bore-hole: Ø 20.5 mm
- wall thickness 1.5-3.2 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



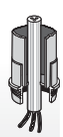


EDR 25

Grommets for conduits for knockouts M 25

IP 65 | TPE | RAL 7035

- conduit connection M 25
- bore-hole: Ø 25.5 mm
- wall thickness 1.5-3.2 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



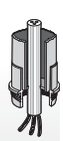


EDR 32

Grommets for conduits for knockouts M 32

IP 65 | TPE | RAL 7035

- conduit connection M 32
- bore-hole: Ø 32.5 mm
- wall thickness 1.5-3.2 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



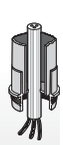


EDR 40

Grommets for conduits for knockouts M 40

IP 65 | TPE | RAL 7035

- conduit connection M 40
- bore-hole: Ø 40.5 mm
- wall thickness 1.5-3.2 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C





AKM 12

Cable glands for knockouts M 12

IP 66/67 | PA | RAL 7035



- sealing range: Ø 4-6 mm
- ISO thread M 12 x 1.5
- bore-hole: Ø 12.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	0.9 Nm



AKM 16

Cable glands for knockouts M 16

IP 66/67 | PA | RAL 7035



- sealing range: Ø 5-10 mm
- ISO thread M 16 x 1.5
- bore-hole: Ø 16.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	3.0 Nm



AKM 20

Cable glands for knockouts M 20

IP 66/67 | PA | RAL 7035



- sealing range Ø 11-17 mm
- ISO thread M 25 x 1.5
- bore-hole: Ø 25.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	7.5 Nm



AKM 25

Cable glands for knockouts M 25

IP 66/67 | PA | RAL 7035



- sealing range Ø 11-17 mm
- ISO thread M 25 x 1.5
- bore-hole: Ø 25.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	7.5 Nm



AKM 32

Cable glands for knockouts M 32

IP 66/67 | PA | RAL 7035



- sealing range Ø 15-21 mm
- ISO thread M 32 x 1.5
- bore-hole: Ø 32.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	10.0 Nm



AKM 40

Cable glands for knockouts M 40

IP 66/67 | PA | RAL 7035



- sealing range: Ø 19-28 mm
- ISO thread M 40 x 1.5
- bore-hole: Ø 40.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	10.0 Nm



AKM 50

Cable glands for knockouts M 50

IP 66/67 | PA | RAL 7035



- sealing range: Ø 27-35 mm
- ISO thread M 50 x 1.5
- bore-hole: Ø 50.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	10.0 Nm



AKM 63

Cable glands for knockouts M 63

IP 66/67 | PA | RAL 7035



- sealing range: Ø 35-42 mm
- ISO thread M 63 x 1.5
- bore-hole: Ø 63.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	10.0 Nm



AFM 16

Cable glands for knockouts M 16

IP 65 | PA | RAL 7035



- sealing range: Ø 5-10 mm
- bore-hole: Ø 16.3 mm
- wall thickness 1-4 mm
- the cable gland can be mounted without locknut
- especially useful when it is difficult to mount a lock nut in boxes
- with strain relief
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 20 °C up to + 55 °C
- glow wire test IEC 60695-2-11: 750 °C

tightening torque	2.0 Nm



AFM 20

Cable glands for knockouts M 20

IP 65 | PA | RAL 7035



- sealing range: Ø 8-13 mm
- bore-hole: Ø 20.3 mm
- wall thickness 1-4 mm
- the cable gland can be mounted without locknut
- especially useful when it is difficult to mount a lock nut in boxes
- with strain relief
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 20 °C up to + 55 °C
- glow wire test IEC 60695-2-11: 750 °C

tightening torque	2.7 Nm



AFM 25

Cable glands for knockouts M 25

IP 65 | PA | RAL 7035



- sealing range Ø 11-17 mm
- bore-hole: Ø 25.3 mm
- wall thickness 1-4 mm
- the cable gland can be mounted without locknut
- especially useful when it is difficult to mount a lock nut in boxes
- with strain relief
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 20 °C up to + 55 °C
- glow wire test IEC 60695-2-11: 750 °C

tightening torque	5.0 Nm



AFM 32

Cable glands for knockouts M 32

IP 65 | PA | RAL 7035



- sealing range Ø 15-21 mm
- bore-hole: Ø 32.3 mm
- wall thickness 1-4 mm
- the cable gland can be mounted without locknut
- especially useful when it is difficult to mount a lock nut in boxes
- with strain relief
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 20 °C up to + 55 °C
- glow wire test IEC 60695-2-11: 750 °C

tightening torque	7.5 Nm








ASS 12

Cable glands for knockouts M 12

IP 66/67 | PA | RAL 9005



- sealing range: Ø 2-5 mm
- ISO thread M 12 x 1.5
- bore-hole:Ø 12.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	0.9 Nm



ASS 16

Cable glands for knockouts M 16

IP 66/67 | PA | RAL 9005



- sealing range: Ø 3-10 mm
- ISO thread M 16 x 1.5
- bore-hole: Ø 16.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	3.0 Nm



ASS 20

Cable glands for knockouts M 20

IP 66/67 | PA | RAL 9005



- sealing range: Ø 5-13 mm
- ISO thread M 20 x 1.5
- bore-hole: Ø 20.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2 -11: 960 °C

tightening torque	4.0 Nm



ASS 25

Cable glands for knockouts M 25

IP 66/67 | PA | RAL 9005



- sealing range: Ø 8-17 mm
- ISO thread M 25 x 1.5
- bore-hole: Ø 25.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

tightening torque	7.5 Nm



ASS 32

IP 66/67 | PA | RAL 9005

Cable glands for knockouts M 32

- sealing range: Ø 12-21 mm
- ISO thread M 32 x 1.5
- bore-hole: Ø 32.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C



tightening torque	10.0 Nm



ASS 40

IP 66/67 | PA | RAL 9005

Cable glands for knockouts M 40

- sealing range: Ø 16-28,5 mm
- ISO thread M 40 x 1.5
- bore-hole: Ø 40.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C



tightening torque	10.0 Nm



ASS 50

IP 66/67 | PA | RAL 9005

Cable glands for knockouts M 50

- sealing range: Ø 21-35 mm
- ISO thread M 50 x 1.5
- bore-hole: Ø 50.3 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C



tightening torque	10.0 Nm



ASS 63

IP 66/67 | PA | RAL 9005

Cable glands for knockouts M 63

- sealing range: Ø 20-48 mm
- ISO thread M 63 x 1.5
- bore-hole: Ø 63.3 mm
- wall thickness up to 3 mm
- with counter nut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C



tightening torque	10.0 Nm

Ventilation and cable entry in one!
In general the formation of water in case of condensation in closed enclosures cannot be prevented in installation areas with high temperature differences!

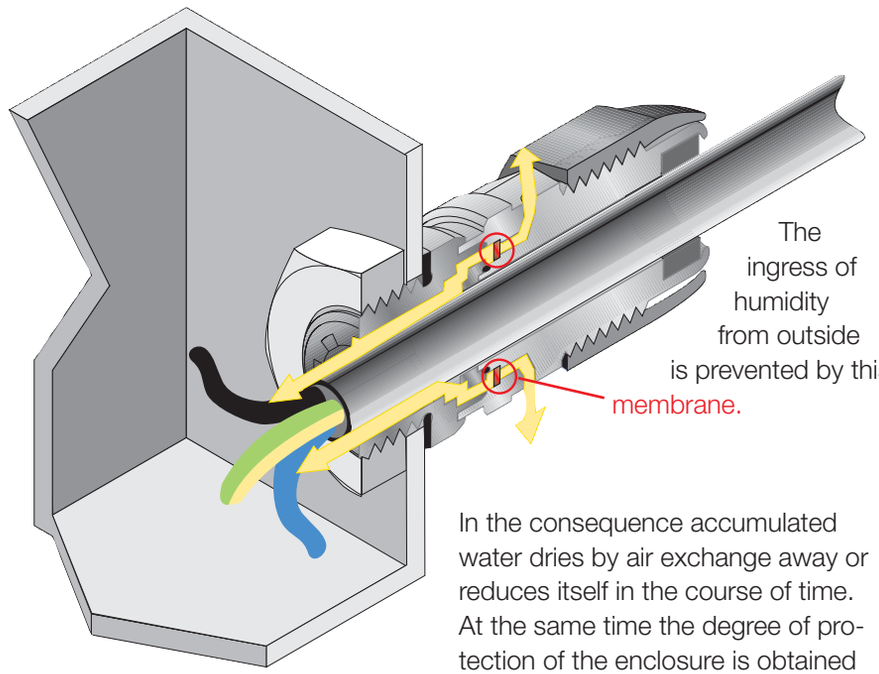


The combi climate gland allows the cable entry and pressure compensation additionally.

Combi climate glands prevent accumulations of condensation, which can form among others by large temperature fluctuations, like changing weather, intensive solar irradiation etc., in enclosures with high degree of protection.

For adherence to the requested degree of protection the ventilation of the enclosure is effected via a special combi climate gland.

Via an inserted, breathable membrane combi climate glands ensure pressure compensation between enclosure interior and ambient air.



In the consequence accumulated water dries by air exchange away or reduces itself in the course of time. At the same time the degree of protection of the enclosure is obtained (up to IP 67)!







Your advantages with combi climate glands:

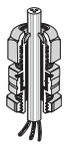
- **Cable entry and ventilation in one!**
- **Degree of protection of enclosure is obtained**



KBM 20

IP 66/67 | PA | RAL 7032

Combi climate gland for knockouts M 20



- for the reduction of condensation by pressure compensation
- sealing range: Ø 6-13 mm
- ISO thread M 20 x 1.5
- bore-hole: Ø 20.5 mm
- wall thickness up to 3.5 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one combi climate gland M20 must be used per 6 litres (6000 cm^3) of enclosure volume.
- Example:
  enclosure size 27 cm x 27 cm x 17 cm = 12393 cm^3 = 12,393 litres.
  Number of necessary combi climate glands M20 ≥ 3 pieces.
- When using different gland sizes the values for the enclosure volumes of the used combi climate glands can be added on.
- If the quantity of the necessary climate glands for pressure compensation is larger, than the number of necessary cable glands for cable entry, the unused climate glands can be sealed with sealing plugs.

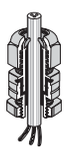
tightening torque	3.0 Nm



KBM 25

IP 66/67 | PA | RAL 7032

Combi climate gland for knockouts M 25



- for the reduction of condensation by pressure compensation
- sealing range: Ø 9-17 mm
- ISO thread M 25 x 1.5
- bore-hole: Ø 25.5 mm
- wall thickness up to 3.5 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one combi climate gland M25 must be used per 10 litres (10000 cm^3) of enclosure volume.
- Example:
  enclosure size 27 cm x 27 cm x 17 cm = 12393 cm^3 = 12,393 litres.
  Number of necessary combi climate glands M25 ≥ 2 pieces
- When using different gland sizes the values for the enclosure volumes of the used combi climate glands can be added on.
- If the quantity of the necessary climate glands for pressure compensation is larger, than the number of necessary cable glands for cable entry, the unused climate glands can be sealed with sealing plugs.

tightening torque	4.0 Nm



KBM 32

IP 66/67 | PA | RAL 7032

Combi climate gland for knockouts M 32



- for the reduction of condensation by pressure compensation
- sealing range: Ø 13-21 mm
- ISO thread M 32 x 1.5
- bore-hole: Ø 32.5 mm
- wall thickness up to 3.5 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one combi climate gland M32 must be used per 12 litres (12000 cm^3) of enclosure volume.
- Example:
  enclosure size 27 cm x 27 cm x 17 cm = 12393 cm^3 = 12,393 litres.
  Number of necessary combi climate glands M32 ≥ 2 piece.
- When using different gland sizes the values for the enclosure volumes of the used combi climate glands can be added on.
- If the quantity of the necessary climate glands for pressure compensation is larger, than the number of necessary cable glands for cable entry, the unused climate glands can be sealed with sealing plugs.

tightening torque	4.0 Nm



KBM 40

IP 66/67 | PA | RAL 7032

Combi climate gland for knockouts M 40



- for the reduction of condensation by pressure compensation
- sealing range: Ø 16-28 mm
- ISO thread M 40 x 1.5
- bore-hole: Ø 40.5 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one combi climate gland M40 must be used per 16 litres (16000 cm^3) of enclosure volume.
- Example:
  enclosure size 27 cm x 27 cm x 17 cm = 12393 cm^3 = 12.393 litres.
  Number of necessary KB. 40 (M40) ≥ 1 piece.
- When using different gland sizes the values for the enclosure volumes of the used combi climate glands can be added on.
- If the quantity of the necessary climate glands for pressure compensation is larger, than the number of necessary cable glands for cable entry, the unused climate glands can be sealed with sealing plugs.

tightening torque	6.0 Nm



KBS 20

IP 66/67 | PA | RAL 9005

Combi climate gland for knockouts M 20



- for the reduction of condensation by pressure compensation
- sealing range: Ø 6-13 mm
- ISO thread M 20 x 1.5
- bore-hole: Ø 20.5 mm
- wall thickness up to 3.5 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one combi climate gland M20 must be used per 6 litres (6000 cm^3) of enclosure volume.
- Example:
  enclosure size 27 cm x 27 cm x 17 cm = 12393 cm^3 = 12,393 litres.
  Number of necessary combi climate glands M20 ≥ 3 pieces.
- When using different gland sizes the values for the enclosure volumes of the used combi climate glands can be added on.
- If the quantity of the necessary climate glands for pressure compensation is larger, than the number of necessary cable glands for cable entry, the unused climate glands can be sealed with sealing plugs.

tightening torque	3.0 Nm



KBS 25

IP 66/67 | PA | RAL 9005

Combi climate gland for knockouts M 25



- for the reduction of condensation by pressure compensation
- sealing range: Ø 9-17 mm
- ISO thread M 25 x 1.5
- bore-hole: Ø 25.5 mm
- wall thickness up to 3.5 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one combi climate gland M25 must be used per 10 litres (10000 cm^3) of enclosure volume.
- Example:
  enclosure size 27 cm x 27 cm x 17 cm = 12393 cm^3 = 12,393 litres.
  Number of necessary combi climate glands M25 ≥ 2 pieces
- When using different gland sizes the values for the enclosure volumes of the used combi climate glands can be added on.
- If the quantity of the necessary climate glands for pressure compensation is larger, than the number of necessary cable glands for cable entry, the unused climate glands can be sealed with sealing plugs.

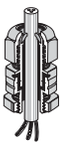
tightening torque	4.0 Nm



KBS 32

IP 66/67 | PA | RAL 9005

Combi climate gland for knockouts M 32



- for the reduction of condensation by pressure compensation
- sealing range: Ø 13-21 mm
- ISO thread M 32 x 1.5
- bore-hole: Ø 32.5 mm
- wall thickness up to 3.5 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one combi climate gland M32 must be used per 12 litres (12000 cm^3) of enclosure volume.
- Example:
  enclosure size 27 cm x 27 cm x 17 cm = 12393 cm^3 = 12,393 litres.
  Number of necessary combi climate glands M32 ≥ 2 piece.
- When using different gland sizes the values for the enclosure volumes of the used combi climate glands can be added on.
- If the quantity of the necessary climate glands for pressure compensation is larger, than the number of necessary cable glands for cable entry, the unused climate glands can be sealed with sealing plugs.

tightening torque	4.0 Nm



KBS 40

IP 66/67 | PA | RAL 9005

Combi climate gland for knockouts M 40



- for the reduction of condensation by pressure compensation
- sealing range: Ø 16-28 mm
- ISO thread M 40 x 1.5
- bore-hole: Ø 40.5 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one combi climate gland M40 must be used per 16 litres (16000 cm^3) of enclosure volume.
- Example:
  enclosure size 27 cm x 27 cm x 17 cm = 12393 cm^3 = 12.393 litres.
  Number of necessary KB. 40 (M40) ≥ 1 piece.
- When using different gland sizes the values for the enclosure volumes of the used combi climate glands can be added on.
- If the quantity of the necessary climate glands for pressure compensation is larger, than the number of necessary cable glands for cable entry, the unused climate glands can be sealed with sealing plugs.

tightening torque	6.0 Nm



VSB 13

RAL 3000

Sealing plug
diameter 13 mm

- for sealing combi climate glands M20 or M25, which are not used for cable entry
- ambient temperature - 25 °C to + 55 °C



VSB 21

RAL 3000

Sealing plug
diameter 21 mm

- for sealing combi climate glands M32 and M40, which are not used for cable entry
- ambient temperature - 25 °C to + 55 °C

Example: Application of combi climate glands

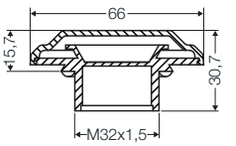




BM 32

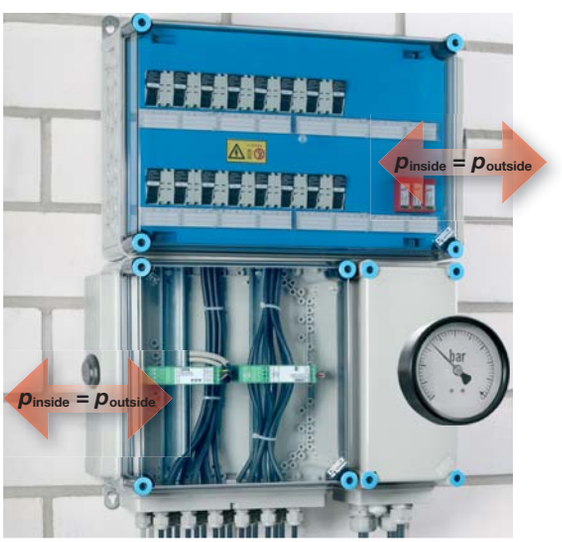
Pressure compensation element for M 32 knockouts

IP 65 | ASA/PC Blend | RAL 7016



- for the reduction of condensation by pressure compensation in power distribution systems
- ISO thread M 32 x 1.5
- bore-hole: Ø 32.3 mm
- wall thickness of up to 8 mm
- with counter nut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- In order not to exceed leakage limit of 0.07 bar with pressure compensation, one pressure compensation element BM 32 must be used per 42 litres (42000 cm³) of enclosure volume.
- Example:
  enclosure size 30 cm x 60 cm x 17 cm = 30600 cm³ = 30.6 litres.
  Number of necessary BM 32 (M32) = 1 piece.
- technical changes reserved

Pressure compensation element BM 32





KST 70

Stepped grommet

IP 65 | TPE | RAL 7035



- sealing range: Ø 30-72 mm
- bore-hole: Ø 83 mm
- wall thickness 1.5-3 mm
- for indoor - normal environment and (or) protected outdoor installation
- ambient temperature - 25 °C to + 35 °C
- glow wire test IEC 60695-2-11: 750 °C



MV FP 66

Flange

IP 55 | TPE | RAL 7035



- with cable entry glands and screws
- sealing range: Ø 30-72 mm
- wall thickness of at least 1.5 mm



KHR 01

Cable retention
for cable diameter 6.5 - 14 mm

- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 6,5 - 10 mm
- 30 pieces for cable diameter 10 - 14 mm



KHR 02

Cable retention
for cable diameter 10 - 16 mm

- set with 10 x 6 cable rentention rings
- 30 pieces for cable diameter 10 - 14 mm
- 30 pieces for cable diameter 13 - 16 mm

Cable retention



Outside diameter of conventional cable cross sections. The outside diameters are average values of different products.

Cable cross section	NYM	NYY	NYCY NYCWY
1x4 mm²	Ø 8 mm	Ø 9 mm	–
1x6 mm²	Ø 8.5 mm	Ø 10 mm	–
1x10 mm²	Ø 9.5 mm	Ø 10.5 mm	–
1x16 mm²	Ø 11 mm	Ø 12 mm	–
1x25 mm²	–	Ø 14 mm	–
1x35 mm²	–	Ø 15 mm	–
1x50 mm²	–	Ø 16.5 mm	–
1x70 mm²	–	Ø 18 mm	–
1x95 mm²	–	Ø 20 mm	–
1x120 mm²	–	Ø 21 mm	–
1x150 mm²	–	Ø 23 mm	–
1x185 mm²	–	Ø 25 mm	–
1x240 mm²	–	Ø 28 mm	–
1x300 mm²	–	Ø 30 mm	–
2x1.5 mm²	Ø 10 mm	Ø 12 mm	–
2x2.5 mm²	Ø 11 mm	Ø 13 mm	–
2x4 mm²	–	Ø 15 mm	–
2x6 mm²	–	Ø 16 mm	–
2x10 mm²	–	Ø 18 mm	–
2x16 mm²	–	Ø 20 mm	–
2x25 mm²	–	–	–
2x35 mm²	–	–	–
3x1.5 mm²	Ø 10.5 mm	Ø 12.5 mm	Ø 13 mm
3x2.5 mm²	Ø 11 mm	Ø 13 mm	Ø 14 mm
3x4 mm²	Ø 13 mm	Ø 16 mm	Ø 16 mm
3x6 mm²	Ø 15 mm	Ø 17 mm	Ø 17 mm
3x10 mm²	Ø 18 mm	Ø 19 mm	Ø 18 mm
3x16 mm²	Ø 20 mm	Ø 21 mm	Ø 21 mm
3x25 mm²	–	Ø 26 mm	–
3x35 mm²	–	–	–
3x50 mm²	–	–	–
3x70 mm²	–	–	–
3x95 mm²	–	–	–
3x120 mm²	–	–	–
3x150 mm²	–	–	–
3x185 mm²	–	–	–
3x240 mm²	–	–	–
3x25/16 mm²	–	Ø 27 mm	Ø 27 mm
3x35/16 mm²	–	Ø 28 mm	Ø 27 mm
3x50/25 mm²	–	Ø 32 mm	Ø 32 mm
3x70/35 mm²	–	Ø 32-36 mm	Ø 36 mm
3x95/50 mm²	–	Ø 37-41 mm	Ø 40 mm
3x120/70 mm²	–	Ø 42 mm	Ø 43 mm
3x150/70 mm²	–	Ø 46 mm	Ø 47 mm
3x185/95 mm²	–	Ø 52 mm	Ø 48-54 mm
3x240/120 mm²	–	Ø 57-63 mm	Ø 60 mm
3x300/150 mm²	–	Ø 63-69 mm	–

Cable cross section	NYM	NYY	NYCY NYCWY
4x1.5 mm²	Ø 11 mm	Ø 13.5 mm	Ø 14 mm
4x2.5 mm²	Ø 12.5 mm	Ø 14.5 mm	Ø 15 mm
4x4 mm²	Ø 14.5 mm	Ø 17.5 mm	Ø 17 mm
4x6 mm²	Ø 16.5 mm	Ø 18 mm	Ø 18 mm
4x10 mm²	Ø 18.5 mm	Ø 20 mm	Ø 20 mm
4x16 mm²	Ø 23.5 mm	Ø 23 mm	Ø 23 mm
4x25 mm²	Ø 28.5 mm	Ø 28 mm	Ø 28 mm
4x35 mm²	Ø 32 mm	Ø 26-30 mm	Ø 29 mm
4x50 mm²	–	Ø 30-35 mm	Ø 34 mm
4x70 mm²	–	Ø 34-40 mm	Ø 37 mm
4x95 mm²	–	Ø 38-45 mm	Ø 42 mm
4x120 mm²	–	Ø 42-50 mm	Ø 47 mm
4x150 mm²	–	Ø 46-53 mm	Ø 52 mm
4x185 mm²	–	Ø 53-60 mm	Ø 60 mm
4x240 mm²	–	Ø 59-71 mm	Ø 70 mm
4x25/16 mm²	–	–	Ø 30 mm
4x35/16 mm²	–	–	Ø 30 mm
4x50/25 mm²	–	–	Ø 36.5 mm
4x70/35 mm²	–	–	Ø 40 mm
4x95/50 mm²	–	–	Ø 44.5 mm
4x120/70 mm²	–	–	Ø 48.5 mm
4x150/70 mm²	–	–	Ø 53 mm
4x185/95 mm²	–	–	–
4x240/120 mm²	–	–	–
5x1.5 mm²	Ø 12 mm	Ø 15 mm	Ø 15 mm
5x2.5 mm²	Ø 13.5 mm	Ø 16 mm	Ø 17 mm
5x4 mm²	Ø 15.5 mm	Ø 16.5 mm	Ø 18 mm
5x6 mm²	Ø 18 mm	Ø 19 mm	Ø 20 mm
5x10 mm²	Ø 20 mm	Ø 21 mm	–
5x16 mm²	Ø 26 mm	Ø 24 mm	–
5x25 mm²	Ø 31.5 mm	–	–
7x1.5 mm²	Ø 13 mm	Ø 16 mm	–
7x2.5 mm²	Ø 14.5 mm	Ø 16.5 mm	–
19x1.5 mm²	–	Ø 22 mm	–
24x1.5 mm²	–	Ø 25 mm	–

Assignment of cable outside diameters to cable entries (glands, grommets etc.)

Outside diameters of cables		Cable entry metric
Ø min.	Ø max.	
3 mm	6 mm	AKM/ASS 12
5 mm	10 mm	AKM/ASS 16
6.5 mm	13.5 mm	AKM/ASS 20
11 mm	17 mm	AKM/ASS 25
15 mm	21 mm	AKM/ASS 32
19 mm	28 mm	AKM/ASS 40
27 mm	35 mm	AKM/ASS 50
35 mm	42 mm	AKM/ASS 63
4.8 mm	11 mm	ESM 16
6 mm	13 mm	ESM 20
9 mm	17 mm	ESM 25
9 mm	23 mm	ESM 32
17 mm	30 mm	ESM 40
3.5 mm	12 mm	STM 16
5 mm	16 mm	STM 20
5 mm	21 mm	STM 25
13 mm	26.5 mm	STM 32
13 mm	34 mm	STM 40

Outside diameters of cables		Cable entry metric
Ø min.	Ø max.	
5 mm	10 mm	EDK 16
6 mm	13 mm	EDK 20
9 mm	17 mm	EDK 25
8 mm	23 mm	EDK 32
11 mm	30 mm	EDK 40
conduit connection		
M 16		EDR 16
M 20		EDR 20
M 25		EDR 25
M 32		EDR 32
M 40		EDR 40



AKS 9

for knockouts Pg 9

IP 65 | PA | RAL 7035

- sealing range: Ø 4-8 mm
- for bore-hole Pg 9, Ø 15.5 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C





AKS 11

for knockouts Pg 11

IP 65 | PA | RAL 7035

- sealing range: Ø 5-10 mm
- for bore-hole Pg 11, Ø 19 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C





AKS 13,5

for knockouts Pg 13.5

IP 65 | PA | RAL 7035

- sealing range: Ø 6-12 mm
- bore-hole Pg 13,5, Ø 21 mm
- wall thickness up to 3 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C





AKS 16

for knockouts Pg 16

IP 65 | PA | RAL 7035

- sealing range: Ø 10-14 mm
- for bore-hole Pg 16, Ø 23 mm
- wall thickness up to 4 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C





AKS 21

for knockouts Pg 21

IP 65 | PA | RAL 7035

- sealing range: Ø 13-18 mm
- for bore-hole Pg 21, Ø 29 mm
- wall thickness up to 4 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C





AKS 29

for knockouts Pg 29

IP 65 | PA | RAL 7035



- sealing range: Ø 18-25 mm
- for bore-hole Pg 29, Ø 37.5 mm
- wall thickness up to 4 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C



AKS 36

for knockouts Pg 36

IP 65 | PA | RAL 7035



- sealing range: Ø 22-32 mm
- for bore-hole Pg 36, Ø 47.5 mm
- wall thickness of up to 5 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C



AKS 42

for knockouts Pg 42

IP 65 | PA | RAL 7035



- sealing range: Ø 30-38 mm
- for bore-hole Pg 42, Ø 54,5 mm
- wall thickness of up to 5 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C



AKS 48

for knockouts Pg 48

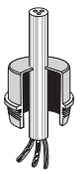
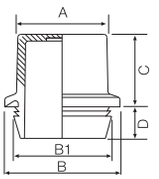
IP 65 | PA | RAL 7035



- sealing range: Ø 34-44 mm
- bore-hole Pg 48, Ø 60 mm
- wall thickness of up to 6 mm
- with strain relief and locknut
- for indoor (normal environment and/or protected outdoor) and outdoor installation (harsh environment and/or outdoor)
- ambient temperature - 25 °C to + 55 °C
- glow wire test IEC 60695-2-11: 960 °C

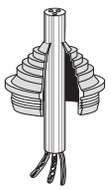
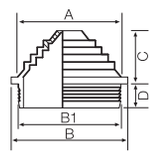


Dimensions 406
Operating and ambient conditions 407

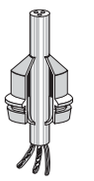
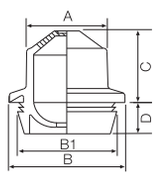
Grommets in mm	A	B	B1	C	D
ESM 16	16.5	22	18.5	14.5	8.5
ESM 20	20.5	26	22.5	14.5	8.5
ESM 25	26.0	31	27.5	14.5	8.5
ESM 32	33.0	38	34.5	17.5	8.5
ESM 40	41.0	46	42.5	17.5	8.5

Grommets ESM
Degree of protection IP 55
Grommets ESM are inserted into knockouts. There is no counternut required!

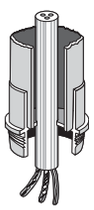
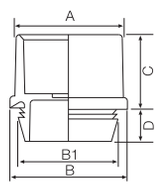
Stepped grommet in mm	A	B	B1	C	D
STM 16	13.2	21.2	19	7.4	8.0
STM 20	18.0	25	23	9.2	8.0
STM 25	21.6	30	28	11.5	7.4
STM 32	27.6	37	35	11.5	8.6
STM 40	33.6	45	43	15.1	8.6

Stepped grommets STM
Degree of protection IP 55
Stepped glands STM are inserted into knockouts. There is no counternut required!

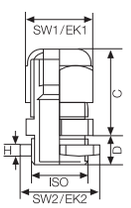
Grommets in mm	A	B	B1	C	D
EDK 16	14.5	22	18.5	13.5	8.5
EDK 20	18.5	26	22.5	14.5	8.5
EDK 25	23.5	31	27.5	14.5	8.5
EDK 32	30.5	38	34.5	19.5	8.5
EDK 40	38.5	46	42.5	19.5	8.5

Grommets EDK
Degree of protection IP 65
Grommets EDK are inserted into knockouts. There is no counternut required!

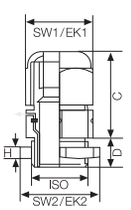



Grommets for conduits in mm	A	B	B1	C	D
EDR 16	20	22	18.5	14.5	8.5
EDR 20	24	26	22.5	14.5	8.5
EDR 25	29	31	27.5	14.5	8.5
EDR 32	36	38	34.5	17.5	8.5
EDR 40	44	46	42.5	17.5	8.5

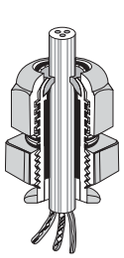
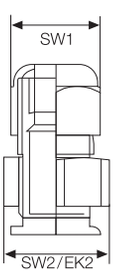
Grommets for conduits EDR
Degree of protection IP 65
Grommets for conduits EDR are inserted into knockouts. There is no counternut required!

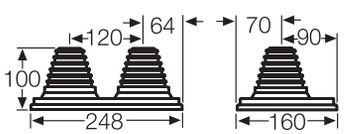
Cable glands AKM/ASS with strain relief counternut, degree of protection IP 65 in mm	ISO	SW1 across flats	EK1 across corners Ø	C max.	D	SW2 across flats	EKS across corners Ø	H
AKM/ASS 12	M 12	15	16.4	22	8	17	19.0	5
AKM/ASS 16	M 16	20	22.0	26	8	22	24.7	5
AKM/ASS 20	M 20	24	26.5	29	8	27	30.2	6
AKM/ASS 25	M 25	29	32.0	34	8	32	36.0	6
AKM/ASS 32	M 32	36	39.7	39	10	41	46.0	7
AKM/ASS 40	M 40	46	50.5	46	10	50	54.1	7
AKM/ASS 50	M 50	55	60.0	51	10	60	66.3	8
AKM/ASS 63	M 63	68	74.7	55	10	75	83.0	8

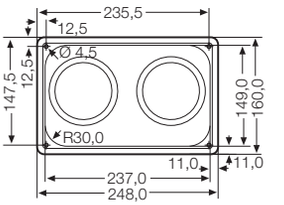
Combi climate glands KBM / KBS with strain relief counternut, degree of protection IP 66 / IP 67 in mm	ISO	SW1 across flats	EK1 across corners Ø	C max.	D	SW2 across flats	EK2 across corners Ø	H
KBM/KBS 20	M 20	24	27,0	42	8	27	29,0	5
KBM/KBS 25	M 25	29	32,0	45	8	32	35,5	5
KBM/KBS 32	M 32	36	40,0	47	10	40	44,5	6
KBM/KBS 40	M 40	46	50,5	59	10	50	54,1	7

Cable glands AFM with strain relief in mm	SW1 across flats	SW2 across flats	EK2 across corners Ø
AFM 16	20	24	26.5
AFM 20	24	26	29.0
AFM 25	29	32	36.0
AFM 32	36	42	46.0



Flange MV FP 66
Degree of protection IP 55
for retrofitting onto boxes made of sheet steel
material thickness ≥ 1,5 mm



	ESM ... STM ... EDK ... EDR ... KST... MV FP 66	ASS ...	AFM ... AKS ...	AKM ...	KBM ... KBS ...
Application area	Suitable for indoor installation (normal environment and/or protected outdoor)	Suitable for **outdoor installation** - harsh environment and / or outdoor			
Ambient temperature					
- Average value over 24 hours	+ 35 °C	+ 55 °C	+ 55 °C	+ 55 °C	+ 55 °C
- Maximum value	+ 40 °C	+ 70 °C	+ 70 °C	+ 70 °C	+ 70 °C
- Minimum value	– 25 °C	– 25 °C	– 25 °C	– 25 °C	– 25 °C
Fire protection in the event of internal faults	Demands placed on electrical devices from standards and laws: Minimum requirements - Glow wire test in accordance with IEC 60695-2-11: - 650 °C for boxes and Cable glands				
Burning behaviour					
- Glow wire test IEC 60695-2-11	750 °C –	960 °C	750 °C	960 °C	960 °C
- UL Subject 94	flame-retardant self-extinguishing	V-2 flame-retardant self-extinguishing	V-2 flame-retardant self-extinguishing	V-0 flame-retardant self-extinguishing	V-2 flame-retardant self-extinguishing
Toxic behaviour	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free	halogen-free silicone-free

“Halogen-free” in accordance with IEC 60754-2 “Common test methods for cables - Determination of the amount of halogen acid gas”.

For material properties see technical data.


HENSEL
TÜV
DIN
Technische Angaben

Technical data

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Info **Further technical information can be found on the Internet**
www.hensel-electric.de -> Products

Products	Material used	Glow wire test IEC 60 695-2-11	UL Subject 94	Temperature resistance	Chemical resistance [1]					
					Acid 10 %	Lye 10 %	Alcohol	Petrol (MAK) [2]	Benzene (MAK) [2]	Minerar oil
K 7... / K 12.. / K 24.. / lid Mi ... / door and lid KV ... / KV PC ... / door and frame FP ... / hinged lid KG ...	PC (polycabonate)	960 °C	V-2	-40 °C / +120 °C	+	+	0	+	—	+
KF 7... WP ... KF .... G / KF .... H / KF .... B / KF .... C bases of Mi .../ FP ...	PC (polycabonate) (with GFS)	960 °C	V-0	-40 °C / +120 °C	+	+	0	+	—	+
D ... / DP ... / DPC ... DE ... / K ... / KC ... RD ... / RK ... KV ... / KG ...	PS (Polystyrol)	750 °C	V-2	-40 °C / +70 °C	+	+	+	—	—	0
Sealings K ... / KV ... / KV PC ... / Mi ... / FP ...	PUR (polyurethane)	—	—	-25 °C / +80 °C	0	+	0	0	—	+
Sealings D ... / DP ... / DPC ... DE ... / K ... / KC ... KF ... RD ... / RK ... KV ... / KV PC ... / Mi FP ... / FP FG ... ESM .. / STM .. / EDK .. EDR .. /KST .. / DPS .. ERA .. / EKA .. / EVS ..	TPE (thermoplastic elastomer)	750 °C	—	-25 °C / +100 °C	+	+	+	0	0	0
AKM ..	PA (polyamide)	960 °C	V-0	-40 °C / +100 °C	+	0	+	+	+	+
ASS .. / AKS .. KBM .. / KBS ..	PA (polyamide)	960 °C	V-2	-40 °C / +100 °C	+	0	+	+	+	+
AVS .. / AFM ..	PA (polyamide)	750 °C	V-2	-40 °C / +100 °C	+	0	+	+	+	+
Sealings AKM .. / ASS .. / AKS ..	CR/NBR (polychloroprene - nitrile rubber)	—	—	-20 °C / +100 °C	+	+	+	0	—	0
Sealings ASS ..	TPE (Evoprene)	—	—	-20 °C / +100 °C	+	—	+	—	—	—
Sealings ASS ..	CR (chloroprene rubber)	—	—	-30 °C / +100 °C	+	+	+	0	—	0
Sealings KBM .. / KBS ..	EPDM ethylene propylene diene monomer rubber	—	—	-40 C / +130 °C	+	+	+	—	—	—

As at: July 2015

(+ = resistance; 0 = partially resistance; — = not resistant)

1) The specifications on chemical resistance are a general guide. In individual cases it may be necessary to check resistance in combination with other chemicals and ambient conditions (temperature. concentration. etc.)

2) (MAK) - Maximum allowable concentration (work place)

Directive 2011/65/EU (RoHS)

We state all these details according to the best of our knowledge. They correspond to the present state of the art. This information is not to be understood as a warranty in the sense of warranty law.

HENSEL test enclosures according to this standard.

Under the intended use, our products do not fall within the scope of the Electrical Equipment Act (Electrical and Electronic Equipment) and therefore outside the scope of Directive 2002/95/EC (RoHS). If they should be provided for use in products falling within the scope of RoHS, compliance with the requirements of RoHS have to be contracted bilaterally.

The following product series comply with Directive 2002/95/EC (RoHS):

- ENYCASE® DK Cable Junction Boxes
- ENYBOARD KV Small-type Distribution Boards
- ENYSTAR® Enclosure System (Empty enclosures, Circuit Breaker Boxes)
- ENYMOD Mi Distribution Boards (Empty Boxes, Circuit Breaker Boxes)
- ENYFIT Cable Entry Systems

Regulation (EC) No 1907/2006 REACH

Gustav Hensel GmbH & Co. KG meets the requirements set by REACH (EG) No. 1907/2006. We shall inform you in the framework of our business relations about the changes to our products resulting from REACH and agree on suitable measures on a case-by-case basis.

As far as article 33 of REACH is concerned, we herby inform you as follows:

It is not possible yet to provide information whether the substances that have been added to the candidate list (new date 15.12.2010) according to article 59 (1.10) of the above-mentioned regulation (see the website of the European Chemicals Agency (EChA) http://echa.europa.eu/) are contained in the article or in the packaging materials in a concentration above 0.1 % weight by weight, because we must first obtain the relevant information from our suppliers.

As regards the substances included on the previous candidate list (earlier date 18.06.2010). we would like to inform you of the following: The article and its packaging materials contain no substances included on the candidate list (date 18.06.2010) according to article 59 (1.10) of the above-mentioned regulation in a concentration above 0.1 % weight by weight.

Lennestadt, July 2015

Degrees of protection according to IEC 60 529

Degree of protection of electrical equipment
Electrical equipment must be protected for safety reasons from external influences and conditions. Enclosures provide the protection of electrical equipment against access to hazardous parts and against solid foreign objects, as well as dust, humidity and water.
The international standard IEC 60 529, the german standard *DIN EN 60 529 / VDE 0470 Part 1 September 2000* with the title "Degrees of protection provided by enclosures (IP Code)", form the basis for the determination and designation of the degree of protection.
The degree of protection provided by an enclosure is proven by means of standardized testing methods.
The becoming "aged" of test samples before carrying out the actual type tests are part of the standardized testing methods.
Ageing is made by an more-active increased thermal treatment.



	1st characteristic numeral: Protection against foreign solid objects and direct contact **Meaning for the protection of equipment against ingress of solid foreign objects and of persons against access to hazardous parts with (non-protected) back of hand, finger, tool or wire.**		**Additonal letter** **Additional letter where the actual protection against access to hazardous parts is higher than that indicated by the 1st characteristic numeral (e.g. IP 20C)**	
	Protection against ingress of solid foreign objects ...	Protection against access to hazardous parts with ...		Short form: Protection against access with ...
IP 0X	non-protected	non-protected		
IP 1X	solid foreign objects ≥ 50 mm Ø	the back of a hand	**A**	the back of the hand
IP 2X	solid foreign objects ≥ 12.5 mm Ø	a finger	**B**	a finger
IP 3X	solid foreign objects ≥ 2.5 mm Ø	a tool ≥ 2.5 mm Ø	**C**	a tool ≥ 2.5 mm Ø
IP 4X	solid foreign objects ≥ 1 mm Ø	a wire ≥ 1 mm Ø	**D**	a wire ≥ 1 mm Ø
IP 5X	dust-protected	with any auxiliary equipment (wire)		
IP 6X	dust-tight	contact with any auxiliary equipment (wire)		

Meaning of the first characteristic numeral
The first characteristic numeral indicates, to what extent the enclosure provides protection for persons against the access to (affecting of) hazardous parts. This protection is reached. when the penetration into an enclosure of a part of the body or a foreign object, which is held by a person, is prevented or limited. At the same time the enclosure provides protection of equipment against the penetration of solid foreign objects. This is the reason for having two descriptions and two definitions to each first characteristic numeral.

Meaning of the second characteristic numeral
The second characteristic numeral indicates the protection of the enclosure against ingress of water with harmful effects on the electrical equipment.

The marking system consists of the code letters **IP** and two following characteristic numerals.

Example:

IP 6 7

Code letters (**I**nternational **P**rotection)

2nd characteristic numeral: Protection against ingress of water with harmful effects

	IP X0	IP X1	IP X2	IP X3	IP X4	IP X5	IP X6	IP X7
Application	Non-protected	Protection against vertical dripping water	Protected against dripping water, when the housing is tilted up to 15°	Protection for occasional cleaning procedures, not direct spraying of the equipment (spraying water)	Protection for occasional cleaning procedures, not direct spraying of the equipment (splashing water)	Protection of operational processes, not direct spraying of the equipment (water jets)	Protection of operational processes, not direct spraying of the equipment (powerful water jets)	Protection against the effects of temporary immersion in water
Symbol								
	IP 20							
	IP 30	**IP 31**						
	IP 40	**IP 41**	**IP 42**	**IP 43**	**IP 44**			
					IP 54	**IP 55**		
						IP 65	**IP 66**	**IP 67**

Additional letters to the IP Code

The IP Code can still be extended by additional letters. Additional letters indicate the degree of protection against access to hazardous parts. Additonal letters follow the two characteristic numerals. Additional letters are only used, - if the actual protection against access to hazardous parts is higher than by the first characteristic numeral indicated; or - if only the protection against access to hazardous parts is indicated and the degree of protection against solid foreign objects is not considered. The first characteristic numeral being then replaced by an X. An enclosure shall only be designated with a stated degree of protection indicated by the additional letter if the enclosure also complies with all lower degrees of protection.

Test for dust protection
indicated by the first characteristic numerals 5 and 6 in accordance with IEC 60529





Test for protection against water
in accordance with IEC 60529
indicated by the characteristic numeral
7: temporary immersion
6: with powerful water jets,
4: splashing water
1: drip box

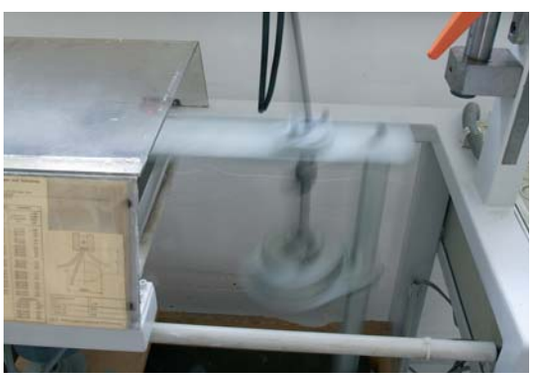




Test with vertical hammer
in accordance with
IEC 60068-2-75



Test of screw-type clamping units
against loosening in accordance with IEC 60998-2-1



Glow wire test
in accordance with
IEC 60695-2-11



Tests in the climatic test cabinet
according to IEC 60068-1
Resistance of materials against certain environmental influences such as heat, cold, humidity



Environmental testing -
Salt mist test in accordance with IEC 60068-2-11



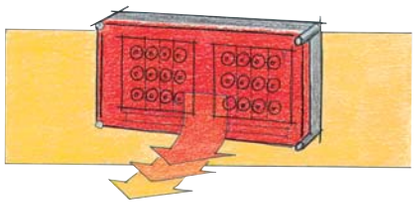
Formation of condensed water and retaliatory actions

How does condensed water occur in enclosures with a high degree of protection?

The problem of condensed water forming in electrical installations only occurs in enclosures with a degree of protection ≥ IP 54 since the temperature adjustment that is carried out from inside to outside is too low due to the high density of the enclosure and its material.

System switched on.

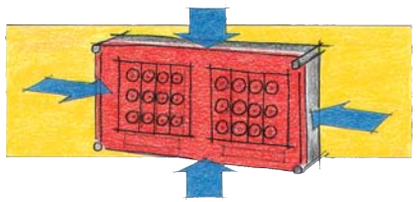




The internal temperature is higher than the external temperature due to the power dissipation of the built-in devices.

System switched on.





The warm air inside the enclosure attempts to accumulate moisture. This comes from outside through the seal as the enclosures are not gas-tight.

System switched off.

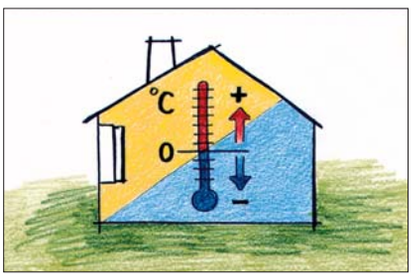




The internal temperature is reduced by cooling down the system e.g. by switching off the loads. The cooler air emits moisture which is collected as condensed water on the cooling inner surfaces.

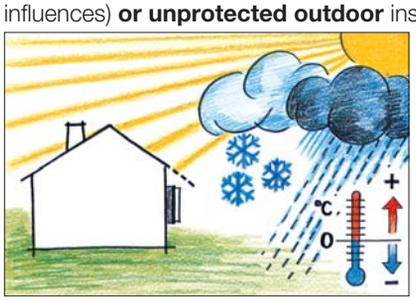
How does condensed water occur in enclosures with a high degree of protection?

Formation of condensed water for **indoor installations:**



In areas where high levels of air humidity and large temperature fluctuations are expected e.g. in laundry rooms. kitchens. car washes etc.

Formation of condensed water in **protected outdoor installations** (protected against weather influences) **or unprotected outdoor** installations:



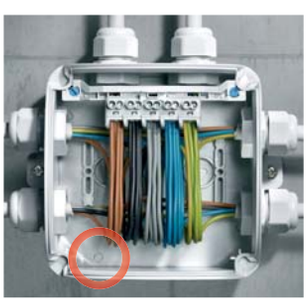
Here condensed water can be formed dependent on the weather, high air humidity, direct sunlight and temperature differences compared to the wall.

Measure against accumulation of condensed water
e. g. Cable junction boxes

1. Select the installation site (avoid temperature differences).
2. Open condensed water membrane at the lowest point of the cable junction box (maybe drill hole Ø 5 mm).
3. Enable exchange of air via ventilation.



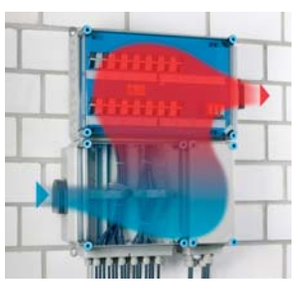
Example: Open condensation water membrane



Measures against formation of condensation water
e. g. Mi Distribution boards

Ventilation flange for vertical mounting on lateral box walls in case of extremely high inside temperature or the risk of water condensation,
degree of protection IP 44.





Cable entry and ventilation
Combi climate glands ensure pressure compensation between enclosre interior and ambient air via an inserted, breathable membrane and ingress of water from outside is prevented.



Definition of Terms
Rated values for setting up low-voltage switchgear are given in the standard IEC 61 439-1

Rated voltage (U_n)
highest nominal value of the a.c. (r.m.s.) or d.c. voltage, declared by the assembly manufacturer, to which the main circuit(s) of the assembly is (are) designed to be connected.

Rated operational voltage (U_e) (of a circuit of an assembly)
value of voltage, declared by the assembly manufacturer, which combined with the rated current determines its application.

Rated insulation voltage (U_i)
r.m.s. withstand voltage value, assigned by the assembly manufacturer to the equipment or to a part of it, characterising the specified (long-term) withstand capability of the insulation.

Rated impulse voltage (U_{imp})
impulse withstand voltage value, declared by the assembly manufacturer, characterising the specified withstand capability of the insulation against transient overvoltages.

Rated current (I_n)
value of current, declared by the assembly manufacturer taking into consideration the ratings of the components, their disposition and application, which can be carried without the temperature-rise of various parts of the assembly exceeding specified limits under specified conditions.

Prospective short circuit current (I_{cp})
current which flows when the supply conductors to the circuit are short-circuited by a conductor of negligible impedance located as near as practicable to the supply terminals of the assembly.

Rated peak withstand current (I_{pk})
value of peak short-circuit current, declared by the assembly manufacturer, that can be withstood under specified conditions.

Rated short-time withstand current (I_{cw})
r.m.s value of short-time current, declared by the assembly manufacturer, that can be carried without damage under specified conditions, defined in terms of a current and time.

Rated current of the assembly (I_{nA})
The rated current of the assembly is the smaller of:
- the sum of the rated currents of the incoming circuits within the assembly operated in parallel;

- the total current which the main busbar is capable of distributing in the particular assembly arrangement.

This current shall be carried without the temperature rise of the individual parts exceeding the limits specified in the standard.

Rated current of a circuit (I_{nc})
The rated current of a circuit is stated by the assembly manufacturer, taking into consideration the ratings of the devices within the circuit, their disposition and application. This current shall be carried without the temperature rise of the various parts of the assembly exceeding the limits specified in the standard when the circuit is loaded alone.

Rated diversity factor (RDF)
per unit value of the rated current, assigned by the assembly manufacturer, to which outgoing circuits of an assembly can be continuously and simultaneously loaded taking into account the mutual thermal influences.

International short forms of types of conductors IK code

International short forms of types of conductors

r (rigid)				f (flexible)
sol (solid)		s (stranded)		
round conductors	sector-type conductors	round conductors	sector-type conductors	flexible conductors
RE (round single)	SE (sector, solid)	RM (round stranded)	SM (sector, stranded)	

IK Code
Protection against mechanical shock (impact strength)

IK Code: Demand energy value [W] in Joules.

The European standard for enclosures EN 50298:98 includes also the IK Code for impact strength.

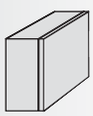
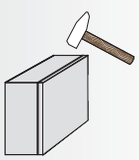
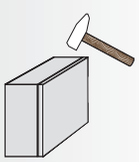
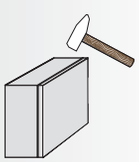
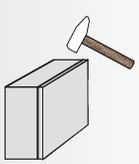
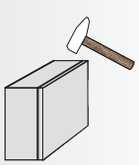
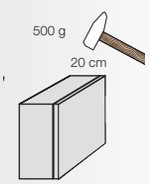
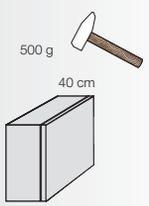
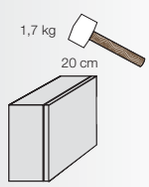
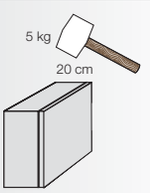
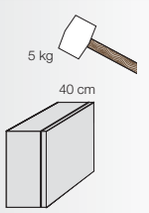
With the DIN EN 50102 (VDE 0470 part of 100) “Degrees of protection by enclosures for electrical operational funds (equipment) against outside mechanical loads (IK Code)”. is defined with the identification letters IK.

This standard regulates the methods for the description of the protection of enclosures against outside mechanical loads.

This indicates the degree of protection. which is provided by an enclosure against a mechanical load (demand energy in joules).

HENSEL tests its enclosures and enclosure systems additionally also according to this standard.

Classification of the impact strength by the IK Code

IK Code	[W] in J	
IK00	no protection	
IK01	0,14	
IK02	0,2	
IK03	0,35	
IK04	0,5	
IK05	0,7	
IK06	1	
IK07	2	
IK08	5	
IK09	10	
IK10	20	

Technical data

Outside diameter of conventional cable cross-sections
Short forms of cables

The outside diameters are average values of different products.

Cable cross-section mm²	NYM mm Ø	NYY mm Ø	NYCY NYCWY mm Ø
1x4	8	9	–
1x6	8.5	10	–
1x10	9.5	10.5	–
1x16	11	12	–
1x25	–	14	–
1x35	–	15	–
1x50	–	16.5	–
1x70	–	18	–
1x95	–	20	–
1x120	–	21	–
1x150	–	23	–
1x185	–	25	–
1x240	–	28	–
1x300	–	30	–
2x1.5	10	12	–
2x2.5	11	13	–
2x4	–	15	–
2x6	–	16	–
2x10	–	18	–
2x16	–	20	–
2x25	–	–	–
2x35	–	–	–
3x1.5	10.5	12.5	13
3x2.5	11	13	14
3x4	13	16	16
3x6	15	17	17
3x10	18	19	18
3x16	20	21	21
3x25	–	26	–
3x35	–	–	–
3x50	–	–	–
3x70	–	–	–
3x95	–	–	–
3x120	–	–	–
3x150	–	–	–
3x185	–	–	–
3x240	–	–	–
3x25/16	–	27	27
3x35/16	–	28	27
3x50/25	–	32	32
3x70/35	–	32-36	36
3x95/50	–	37-41	40
3x120/70	–	42	43
3x150/70	–	46	47
3x185/95	–	52	48-54
3x240/120	–	57-63	60
3x300/150	–	63-69	–

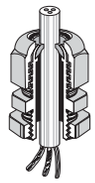
Cable cross-section mm²	NYM mm Ø	NYY mm Ø	NYCY NYCWY mm Ø
4x1.5	11	13.5	14
4x2.5	12.5	14.5	15
4x4	14.5	17.5	17
4x6	16.5	18	18
4x10	18.5	20	20
4x16	23.5	23	23
4x25	28.5	28	28
4x35	32	26-30	29
4x50	–	30-35	34
4x70	–	34-40	37
4x95	–	38-45	42
4x120	–	42-50	47
4x150	–	46-53	52
4x185	–	53-60	60
4x240	–	59-71	70
4x25/16	–	–	30
4x35/16	–	–	30
4x50/25	–	–	34-37
4x70/35	–	–	40
4x95/50	–	–	44.5
4x120/70	–	–	48.5
4x150/70	–	–	53
4x185/95	–	–	–
4x240/120	–	–	–
5x1.5	12	15	15
5x2.5	13.5	16	17
5x4	15.5	16.5	18
5x6	18	19	20
5x10	20	21	–
5x16	26	24	–
5x25	31.5	–	–
7x1.5	13	16	–
7x2.5	14.5	16.5	–
19x1.5	–	22	–
24x1.5	–	25	–

Short forms of cables

NYM	Light plastic-sheathed cable
NYY	Plastic-sheathed cable
NYCY	Plastic-sheathed cable with concentric conductor
NYCWY	Plastic-sheathed cable with concentric. undulated conductor

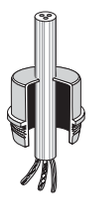
Technical data

Assignment of cable outside diameters to cable glands Standards



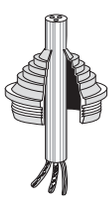
Outside diameter of cables		Cable entry metric
min. mm Ø	max. mm Ø	
3	6.5	AKM/ASS 12
5	10	AKM/ASS 16
6.5	13.5	AKM/ASS 20
10	17	AKM/ASS 25
14	21	AKM/ASS 32
20	28	AKM/ASS 40
25	35	AKM/ASS 50
35	48	AKM/ASS 63
5	10	AFM 16
8	13	AFM 20
11	17	AFM 25
15	21	AFM 32

Cable glands AKM/ASS
Degree of protection: up to IP 67
With strain relief and counternut.



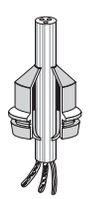
Outside diameter of cables		Cable entry metric
min. mm Ø	max. mm Ø	
4.8	11	ESM 16
6	13	ESM 20
9	17	ESM 25
9	23	ESM 32
17	30	ESM 40

Grommets ESM
Degree of protection: IP 55
Grommets are inserted into knockouts.
No nut is necessary!



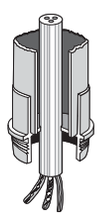
Outside diameter of cables		Cable entry metric
min. mm Ø	max. mm Ø	
3.5	12	STM 16
5	16	STM 20
5	21	STM 25
13	26.5	STM 32
13	34	STM 40

Stepped grommets STM
Degree of protection: IP 55
Stepped grommets are inserted into knock outs.
No nut is necessary!



Outside diameter of cables		Cable entry metric
min. mm Ø	max. mm Ø	
5	10	EDK 16
6	13	EDK 20
9	17	EDK 25
8	23	EDK 32
11	30	EDK 40

Grommets EDK
Degree of protection: IP 65
Grommets are inserted into knock outs.
No nut is necessary!



Outside diameter of cables		Cable entry metric
min. mm Ø	max. mm Ø	
Conduit		
M 16		EDR 16
M 20		EDR 20
M 25		EDR 25
M 32		EDR 32
M 40		EDR 40

Grommets for conduits EDR
Degree of protection: IP 65
Grommets for concuits are inserted into knock outs.
No nut is necessary!

Hensel cable entries comply with the following standards and regulations:

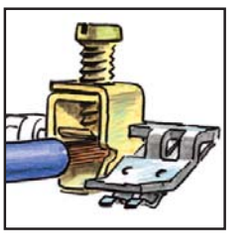
- EN 50262
  Metric cable entries for electrical installations

- EN 60423
  Conduits for electrical purposes - Outside diameter of conduits for electrical installations and threads for conduits and fittings

- IEC 60529
  Degrees of protection provided by enclosures (IP-Code)

PE and N FIXCONNECT® terminal

Rated connecting capacity of PE and N terminals

Clamping unit	Corresponding cross-sections/copper			
	max. number	from - to max.	max. number	from - to max.
Screw-type terminal 25 mm²				
	1	25 mm², s	1	25 mm², f
	1	16 mm², s	1	16 mm², f
	1	10 mm², sol	1	10 mm², f
	3	6 mm², sol	1	6 mm², f
	3	4 mm², sol	1	4 mm², f
	4	2.5 mm², sol	1	2.5 mm², f
	4	1.5 mm², sol	1	1.5 mm², f
		Tested as connecting terminal for several conductors of the same cross-sections for using in one circuit		
Plug-in terminal 4 mm²	1	1.5 - 4 mm², sol	1	1.5 - 4 mm², f
				Without end ferrule; clamping unit has to be opened with a tool when conductor is inserted

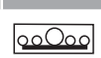
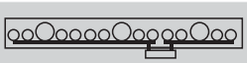
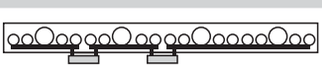
Current carrying capacity of the connecting device: 75 A
All terminals are secured against self loosening.

Terminal equipment and number of conductors to be connected

PE terminal for copper conductors

Number of modules	PE terminal up to 4 mm²	up to 25 mm²
3		
	4x4 mm²	1x25 mm²
4.5 6		
	4x4 mm²	2x25 mm²
9		
	8x4 mm²	2x25 mm²
12		
	12x4 mm²	2x25 mm²
18		
	16x4 mm²	4x25 mm²
24 36 (3-row) 48		
	24x4 mm²	6x25 mm²
36 (2-row) 54		
	32x4 mm²	8x25 mm²

N terminal for copper conductors

Number of modules	N terminal up to 4 mm²	up to 25 mm²	plug-in jumper
3			
	4x4 mm²	1x25 mm²	
4.5 6			
	4x4 mm²	2x25 mm²	
9			
	8x4 mm²	2x25 mm²	
12			
	12x4 mm²	2x25 mm²	
18			
	16x4 mm²	4x25 mm²	
24 36 (3-row) 48			
	24x4 mm²	6x25 mm²	
36 (2-row) 54			
	32x4 mm²	8x25 mm²	

Connnection of aluminum conductors

I. Chemical basics

The special conducting characteristics of aluminum can be seen in the fact that the surface of an aluminum conductor is immediately covered in a **non-conducting oxide layer** upon exposure to oxygen.

This characteristic leads to an increase in the temporary resistance between the aluminum conductors and the terminal body.

This can lead to terminal overheating and in the worst case fire.

Despite these special conditions. aluminum conductors can be connected if the terminal used is appropriate and the following conditions are taken into consideration when connecting.

II. Special terminal requirements for the connection of aluminum conductors

The suitability of terminal for connections with aluminum conductors needs to be evaluated and confirmed by the terminal manufacturer.

1. These terminals will thus meet the requirements for an aligned **electrochemical voltage sequence**. A disintegration of the base material (aluminum) will be prevented.
2. The terminal has an appropriate shape and surface to penetrate the grease layer or a very thin oxide layer on the aluminum conductor upon connection.

III. Appropriate preparation and handling of aluminum conductors



The non-insulated conductor ends need to have the oxide layer carefully scraped clean using a knife for example. In doing so no files, sand paper or brushes may be used.



Immediately after removing the oxide layer, the conductor end needs to be rubbed with an acid and alkali free grease such as technical vaseline and then immediately connected to the terminal. This in turn prevents oxygen from forming a non-conducting oxide layer.

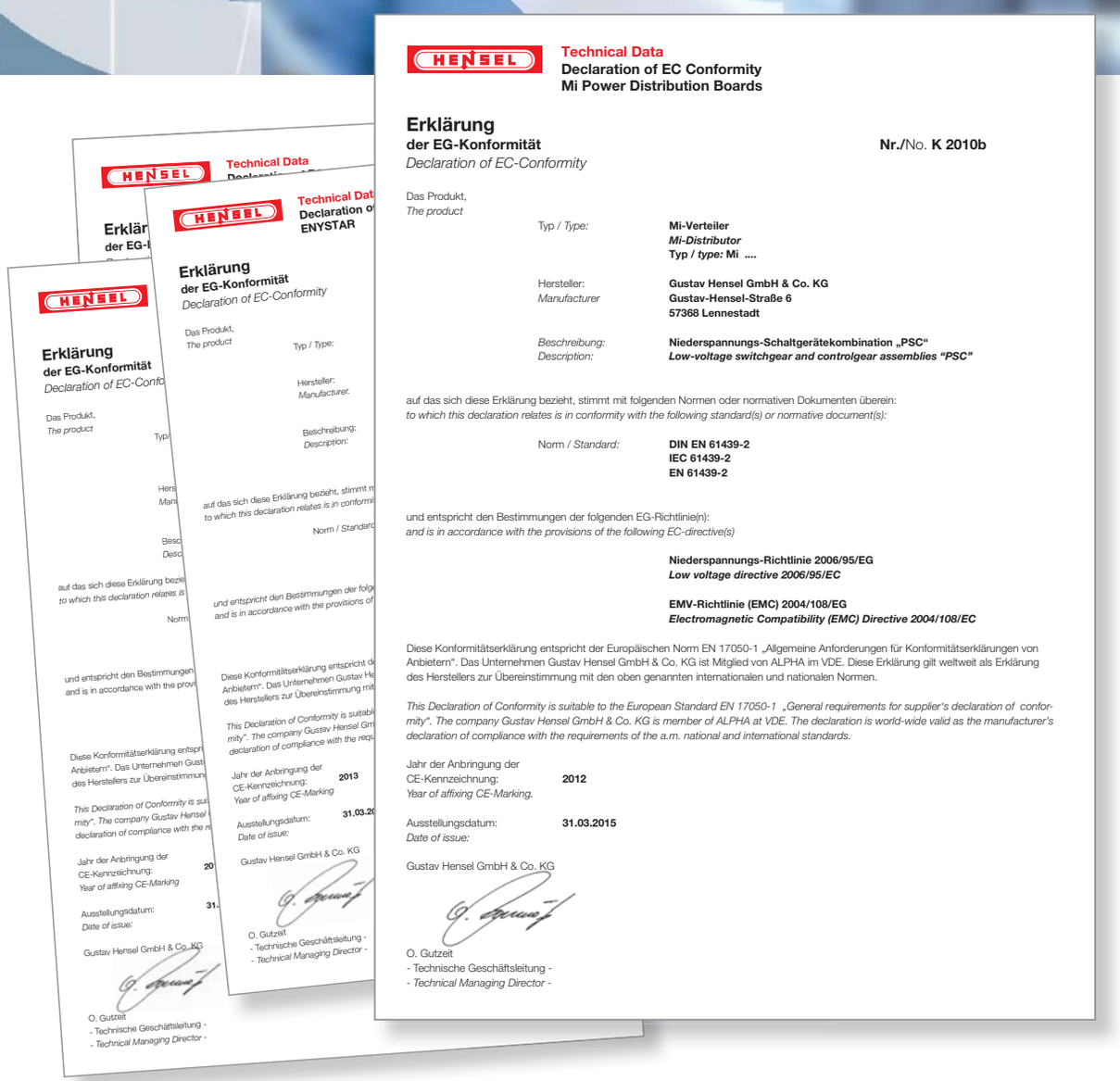


Due to the flow tendency in aluminum the terminals need to be tightened before start up and after the first **200 operating hours** (note the appropriate torque).



The steps listed above need to be repeated if the conductor is removed and re-connected. I.e. the conductor has to be scraped again, greased and immediately connected, because it will be connected at a different position.





Technical Data
Declaration of EC Conformity
Mi Power Distribution Boards

Erklärung
der EG-Konformität **Nr./**No. **K 2010b**
Declaration of EC-Conformity

Das Produkt,
The product

Typ / *Type:*	**Mi-Verteiler** ***Mi-Distributor*** **Typ / *type:* Mi ....**
Hersteller: *Manufacturer*	**Gustav Hensel GmbH & Co. KG** **Gustav-Hensel-Straße 6** **57368 Lennestadt**
Beschreibung: *Description:*	**Niederspannungs-Schaltgerätekombination „PSC“** ***Low-voltage switchgear and controlgear assemblies “PSC”***

auf das sich diese Erklärung bezieht, stimmt mit folgenden Normen oder normativen Dokumenten überein:
to which this declaration relates is in conformity with the following standard(s) or normative document(s):

Norm / *Standard:*	**DIN EN 61439-2** **IEC 61439-2** **EN 61439-2**

und entspricht den Bestimmungen der folgenden EG-Richtlinie(n):
and is in accordance with the provisions of the following EC-directive(s)

Niederspannungs-Richtlinie 2006/95/EG
Low voltage directive 2006/95/EC

EMV-Richtlinie (EMC) 2004/108/EG
Electromagnetic Compatibility (EMC) Directive 2004/108/EC

Diese Konformitätserklärung entspricht der Europäischen Norm EN 17050-1 „Allgemeine Anforderungen für Konformitätserklärungen von Anbietern“. Das Unternehmen Gustav Hensel GmbH & Co. KG ist Mitglied von ALPHA im VDE. Diese Erklärung gilt weltweit als Erklärung des Herstellers zur Übereinstimmung mit den oben genannten internationalen und nationalen Normen.

This Declaration of Conformity is suitable to the European Standard EN 17050-1 „General requirements for supplier's declaration of conformity“. The company Gustav Hensel GmbH & Co. KG is member of ALPHA at VDE. The declaration is world-wide valid as the manufacturer's declaration of compliance with the requirements of the a.m. national and international standards.

Jahr der Anbringung der CE-Kennzeichnung: **2012**
Year of affixing CE-Marking.

Ausstellungsdatum: **31.03.2015**
Date of issue:

Gustav Hensel GmbH & Co. KG

O. Gutzeit
- Technische Geschäftsleitung -
- *Technical Managing Director* -

Info **The current status of EC Declarations of conformity is available on the Internet at** www.hensel-electric.de -> Products


HENSEL
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EAN-Numm
Ident-
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40 12591
60 00
D 9025
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D 9120
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