



Reliable STAR technology for AC safety power sources

AT-S+ offers all the known benefits of our STAR technology, now also for AC safety power sources. It is the perfect symbiosis of CEWA GUARD and STAR technology.

The Automatic Test System AT-S+ individually monitors each CG-S luminaire (up to 20 per circuit) and it does all this by using the power supply cable alone.

The new STAR+ technology allows the switching mode of every connected V-CG-S luminaire to be freely programmed within a 50 or 60 Hz supply network using the system's controller.

This means that maintained light, switched maintained light and non-maintained light modes can be combined in one and the same circuit – there is no need for separate data cables!

The control module with its nonvolatile program memory and large graphic display automatically monitors and controls all components of the test system as well as emergency luminaires connected to it. Faults occurring are shown by the display, forwarded via freely configurable signal contacts and saved to an inspection book.

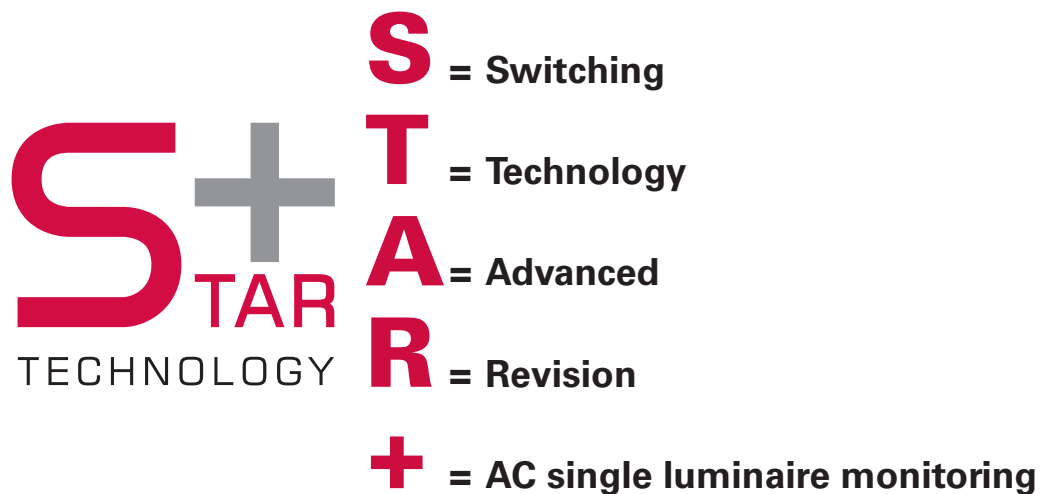
An integral search function automatically detects all system-dependent luminaires and modules that are assigned an address during installation. A central monitoring device can be connected via an interface.

Features:

- Shortened inspection effort due to STAR+ technology; automatic function monitoring of up to 20 luminaires per circuit
- Reduced installation expenditures by STAR+ technology; freely programmable mixed operation of the switching modes per luminaire in one circuit
- Less installation costs as no data line is required to the luminaires
- Automatic luminaire search function
- Plain text display on the control module down to the last luminaire
- Flexible data storage for test log and system configuration with memory card
- 30 minutes functionality in compliance with model directive for fire protection requirements on electrical wiring systems (MLAR model conduit systems directive), version 11/2005, tested by national material testing office

Central Battery Systems AC/AC

Automatic Test System AT-S+ with STAR+ Technology – What is STAR+?



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Identify STAR+ market requirements and consistently implement them!

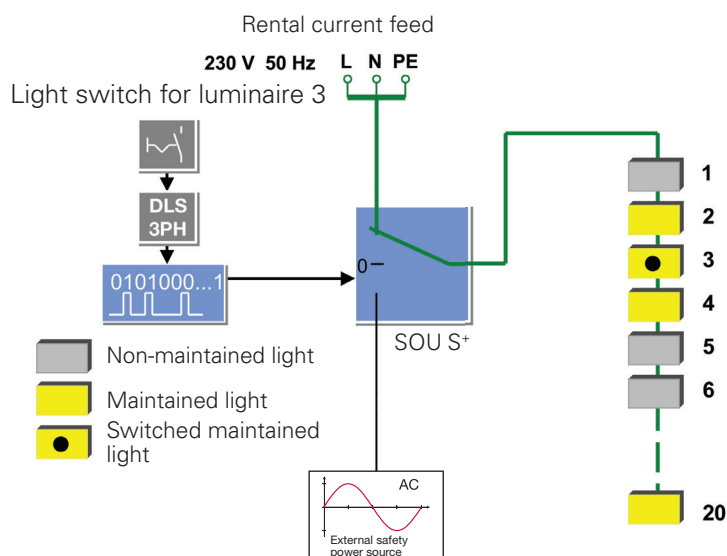
The continuing development of the CEWA GUARD monitoring system has led to the creation of the

**Switching
 Technology
 Advanced
 Revision,**

or **STAR** for short. This **CG-STAR** technology allows different switching modes to be implemented in one and the same circuit, and the switching mode of each individual luminaire can be re-programmed at any time.

As a result, this technology offers not just the proven CEWA Guard safety when it comes to operating a safety lighting system, it also gives planners the confidence and flexibility of knowing that the system can respond and adapt at any time to any changes that are made to a building and its use.

We have united both forms of technology to STAR+ to take advantage of CEWA GUARD and STAR technology in projects in which batteries as power sources for safety services are not needed, but where generators, dual systems (secondary power supply) or central converter systems are used. This now gives you a highly flexible test system with all the familiar benefits.



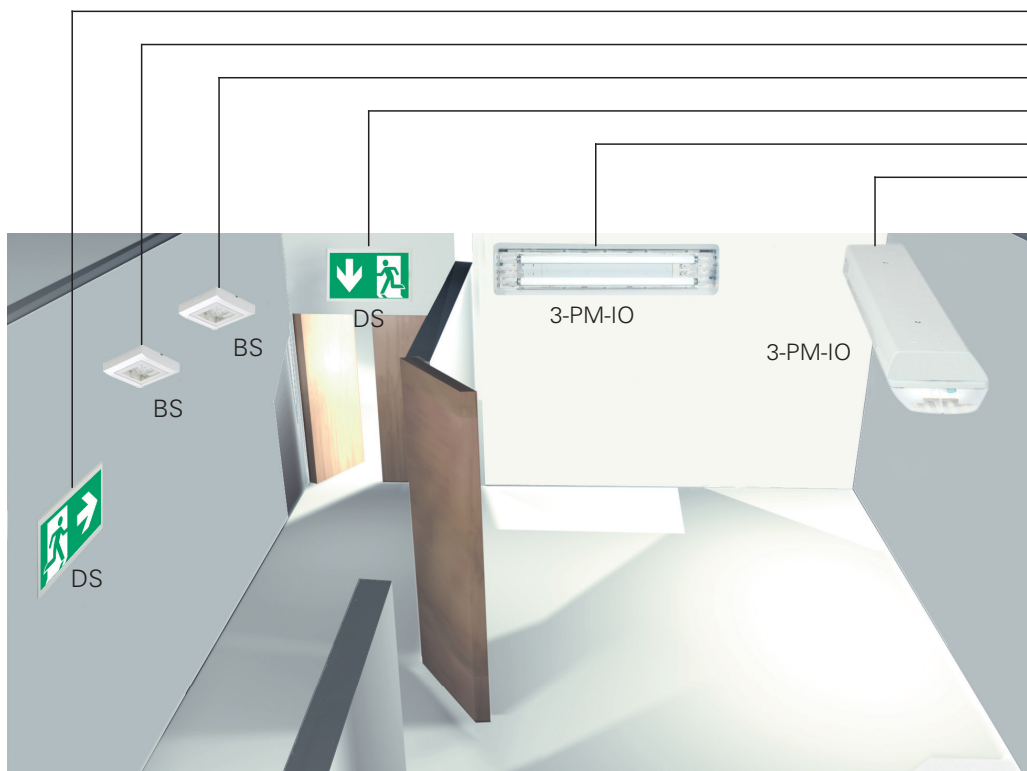
Operation of the STAR+ technology

Your Advantages:

The number of outgoing circuits needed can be sharply reduced, since continuously operating, stand-by and switchable permanent lighting can be realised in one common circuit.

This allows the use of shorter cable distances, reduces installation costs and minimises the effects of burning materials. Any mode of operation can be assigned at a later date – without encroachment in the lighting installation. This enables simple project planning without having to take all possible types of operation into account.

With symbiosis of CEWA GUARD technology and the patented STAR technology to STAR+ technology, no supplementary data line to the luminaires is needed even with use of an AC power source for safety services.

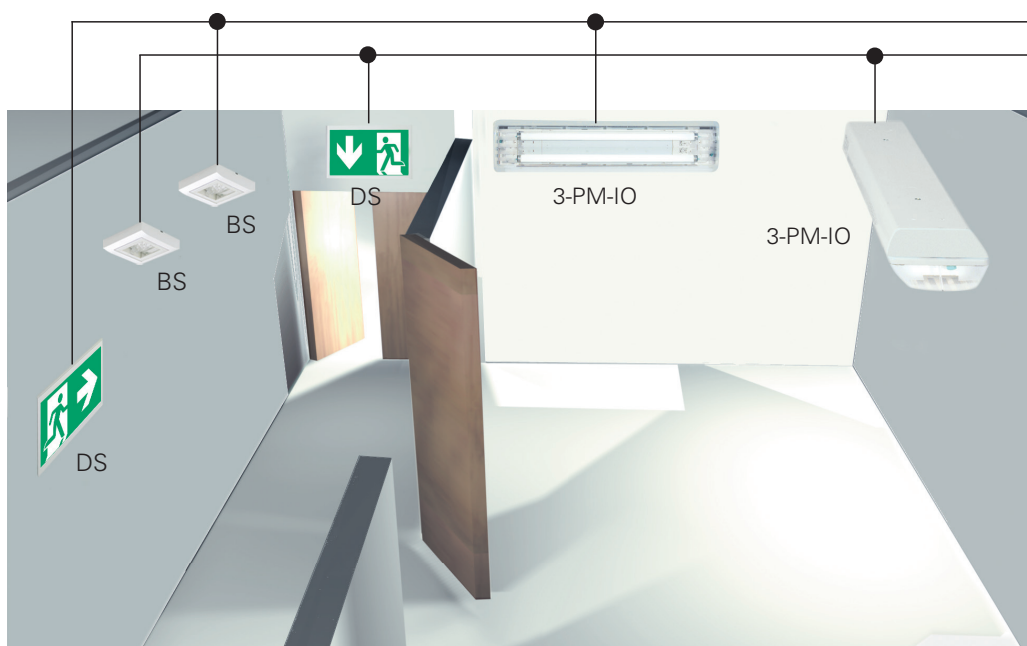


Conventional Installation:

- Maintained light 1 (DS)
- Non-maintained light 1 (BS)
- Non-maintained light 2 (BS)
- Maintained light 2 (DS)
- Switched maintained light 1 (3-PM-IO)
- Switched maintained light 2 (3-PM-IO)

- Each type of switching mode requires two circuits
- Only one type of switching mode is possible per circuit
- Any later modifications involve a large amount of work and expense

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AT-S+ Installation with STAR+ Technology:

- All types of switching modes
- All types of switching modes

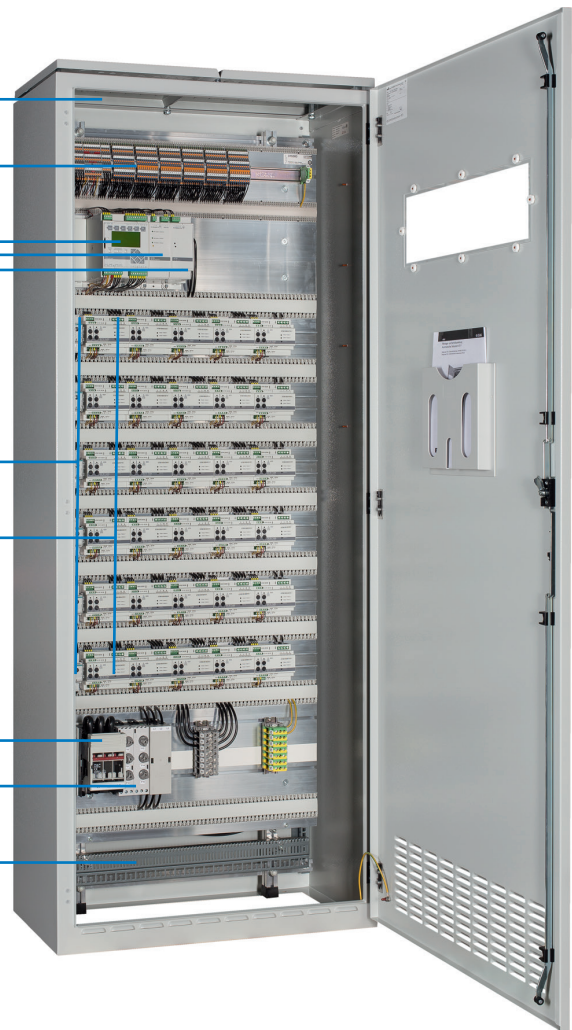
- Only two outgoing circuits for all types of switching modes
- Maintained light, non-maintained light and switched maintained light are possible in one common circuit
- Later circuit modifications do not pose any problems

Central Battery Systems AC/AC

Automatic Test System AT-S+ with STAR+ Technology – Strong in detail

AT-S+ cabinet

- Cable infeed from above
- Triple deck tension spring installation terminal with neutral wire disconnect terminal
- Control unit CU S+
- DC/DC converter.2
- AC module
- Fuse circuit breaker D02 25 A per field
- Circuit switching modules SU S+ 2 x 6 A
- Fuse circuit breaker
- 6-fold mains distribution box (optional)
- Cable infeed from below



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Large connection compartment for convenient wiring

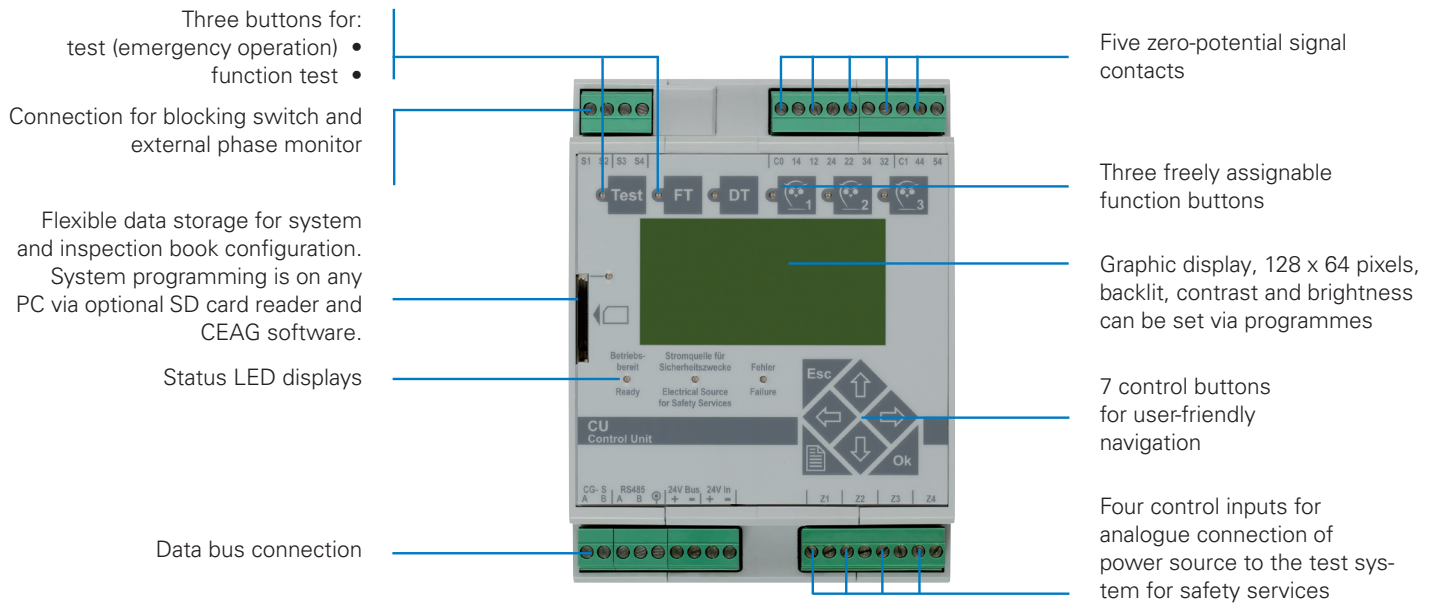
All connections on triple deck installation terminals in the upper part of the central unit.

The control unit, DC/DC converter and the AC module are wired at terminal as standard.

Wiring of the SU-S+ modules at terminals is optional.

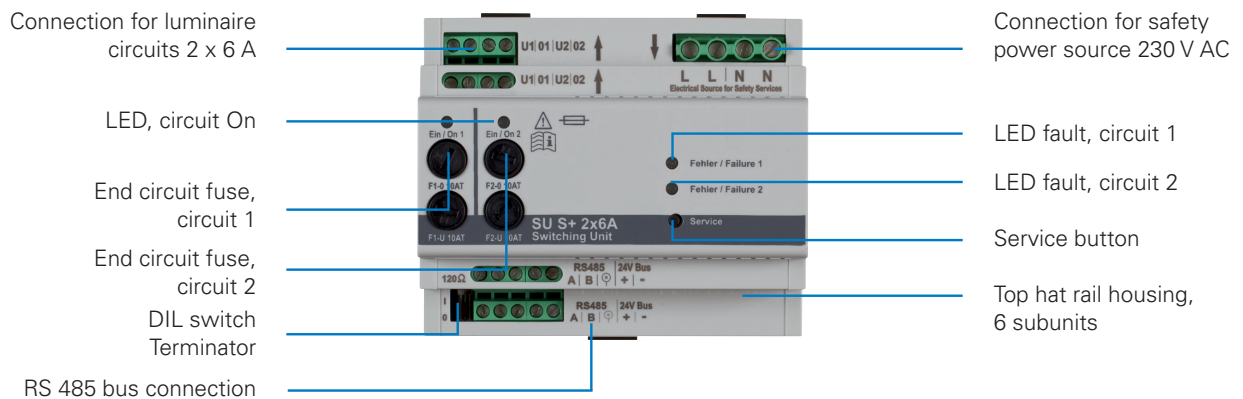


Freely programmable control unit

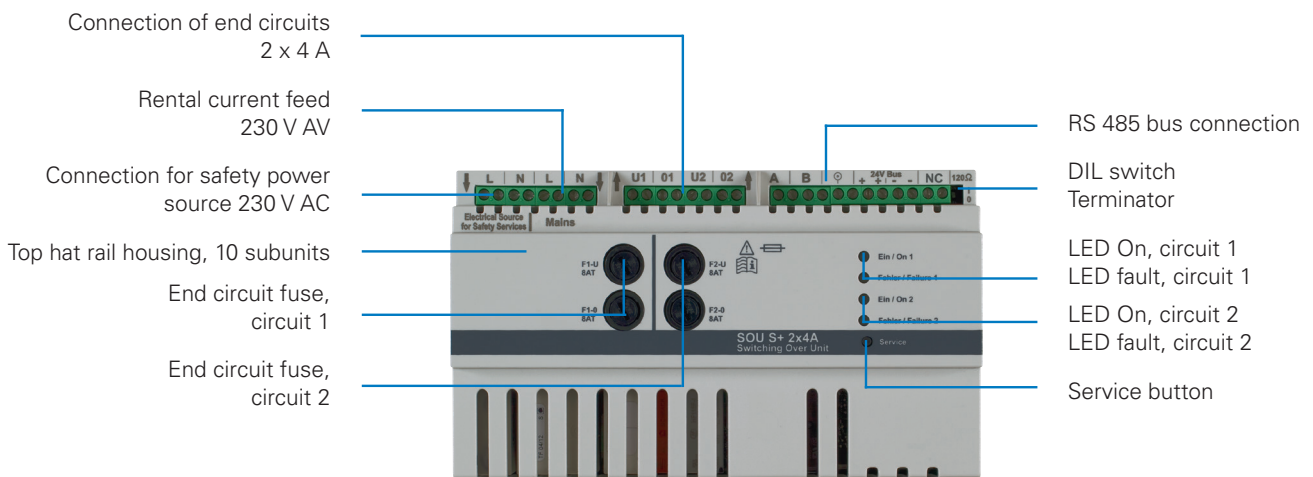


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Switching unit SU S+ 2 x 6 A



Switching over unit SOU S+ 2 x 4 A

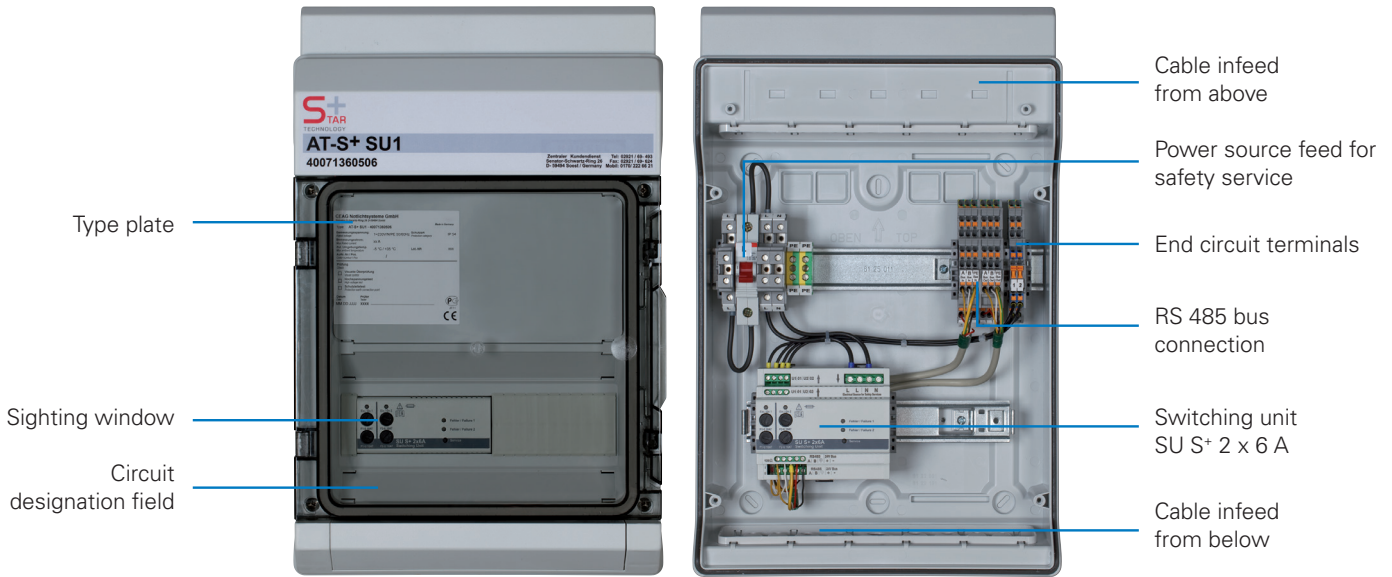


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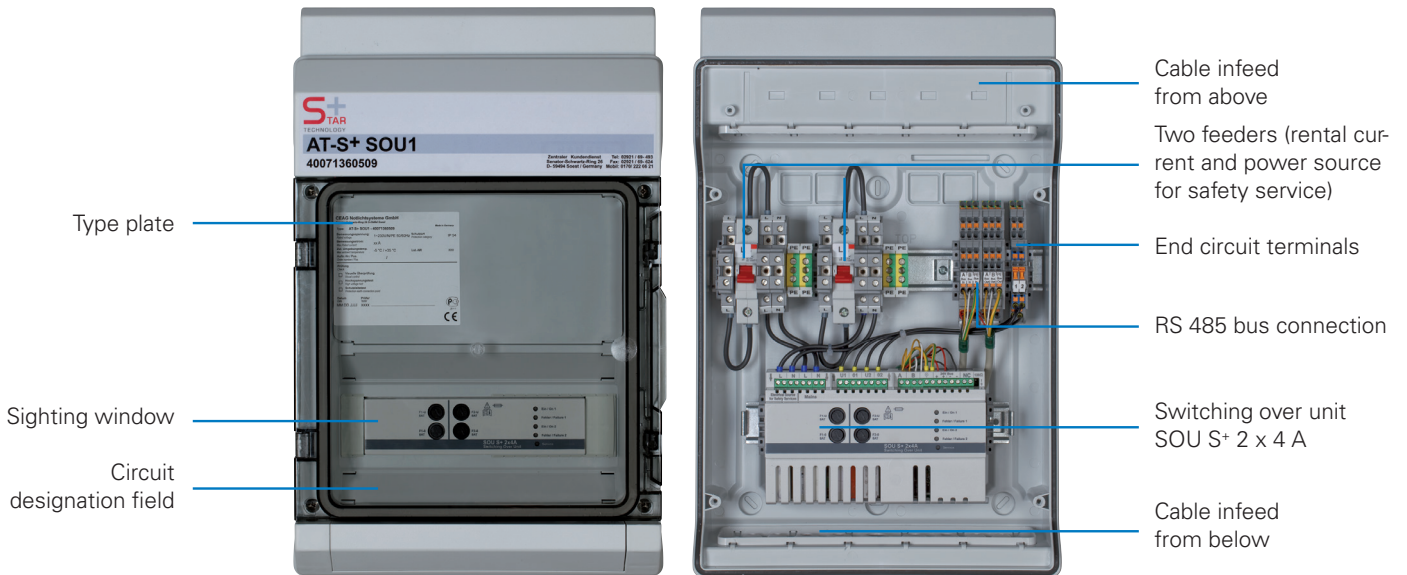
Automatic Test System AT-S+ with STAR+ Technology – Distribution box SU1 and SOU1

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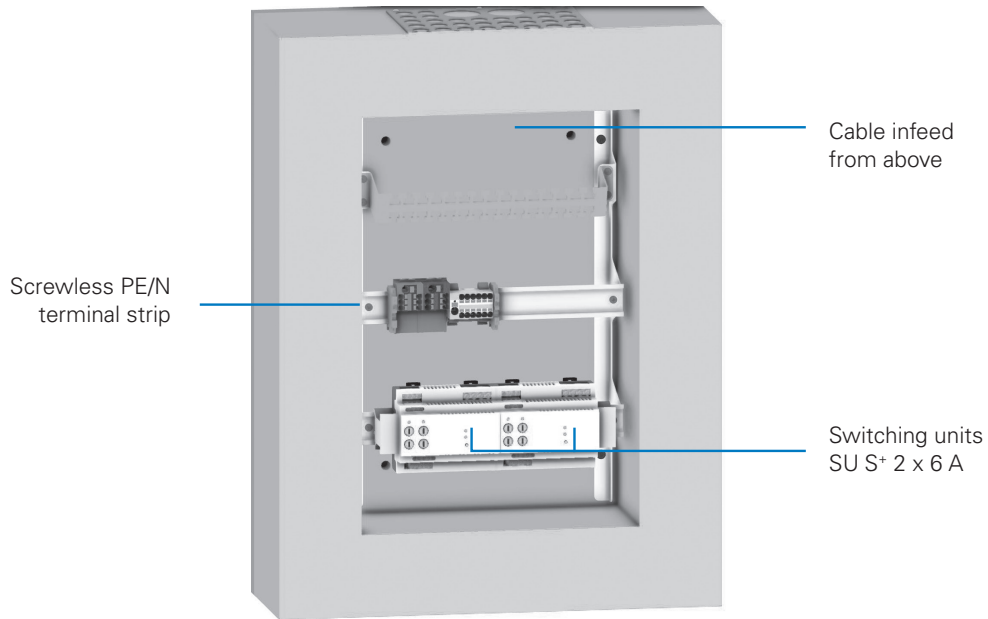
AT-S+ SU1



AT-S+ SOU1

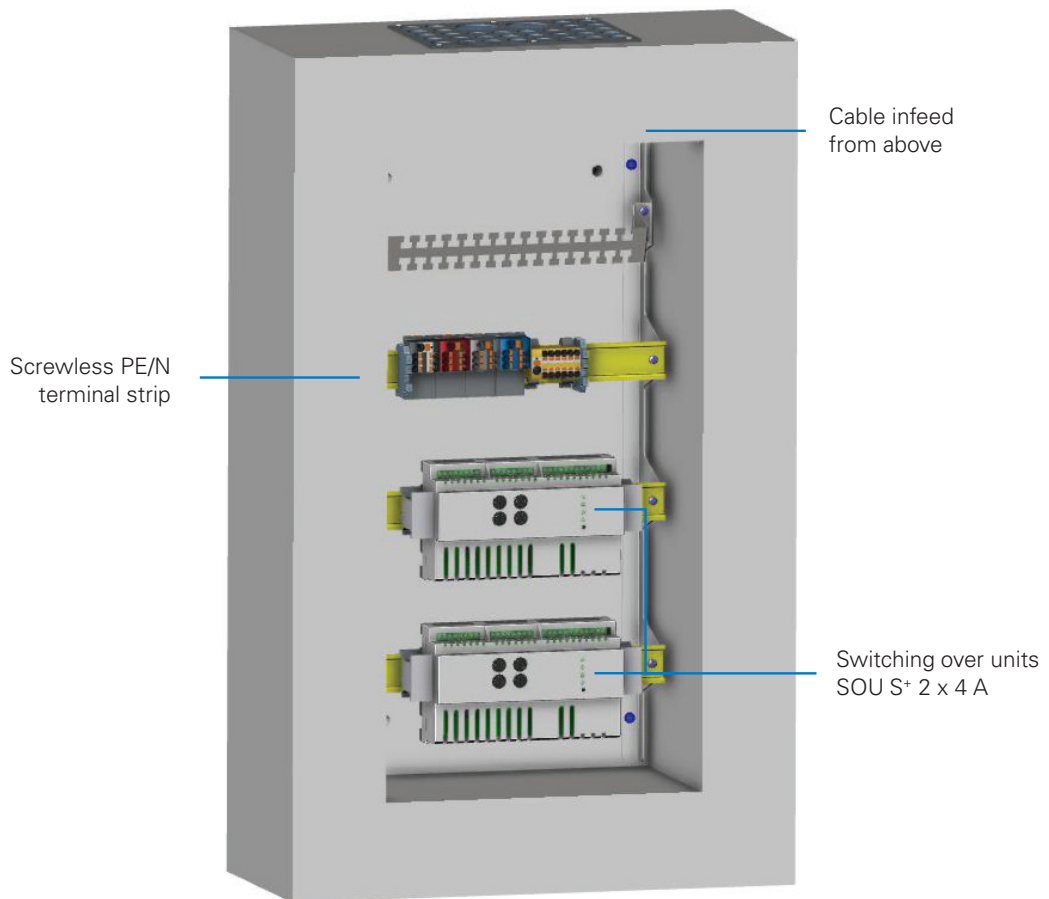


AT-S+ ESF30 SU2



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AT-S+ ESF30 SOU2



AT-S+ C30

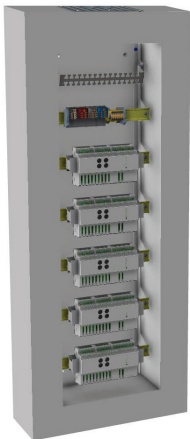


Ordering details

Type	Scope of supply	Order No.
Automatic Test System AT-S+ C30	Automatic Test System type AT-S+ C30 incl. CU-S+, DC/DC.2 and AC module 30 free module slots	40071360500
Automatic Test System AT-S+ C16	Automatic Test System type AT-S+ C16 incl. CU-S+, DC/DC.2 and AC module 16 free module slots	40071360501
Automatic Test System AT-S+ C4	Automatic Test System type AT-S+ C4 incl. CU-S+, DC/DC.2 and AC module 4 free module slots	40071360502
Automatic Test System AT-S+ C0	Automatic Test System type AT-S+ C0 incl. CU-S+, DC/DC.2 und AC module no free module slot	40071360503
Distribution box AT-S+ SU4	Distribution box type AT-S+ SU4 incl. 4 switching units SU S+ 2 x 6 A	40071360504
Distribution box AT-S+ SU2	Distribution box type AT-S+ SU2 incl. 2 switching units SU S+ 2 x 6 A	40071360505
Distribution box AT-S+ SU1	Distribution box type AT-S+ SU1 incl. 1 switching unit SU S+ 2 x 6 A	40071360506
Distribution box AT-S+ SOU2	Distribution box type AT-S+ SOU2 incl. 2 switching over units SOU S+ 2 x 4 A	40071360508
Distribution box AT-S+ SOU1	Distribution box type AT-S+ SOU1 incl. 1 switching over unit SOU S+ 2 x 4 A	40071360509

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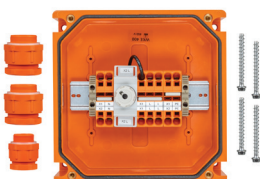
AT-S+ ESF30 SOU5



Ordering details

Type	Scope of supply	Order No.
Automatic Test System AT-S+ ESF30 SU5	Distribution box for automatic test system with 30 minutes functionality, incl. 5 SU-S+ 2 x 6 A circuit assemblies	40071362615
Automatic Test System AT-S+ ESF30 SU4	Distribution box for automatic test system with 30 minutes functionality, incl. 4 SU-S+ 2 x 6 A circuit assemblies	40071362614
Automatic Test System AT-S+ ESF30 SU4 IO	Distribution box for automatic test system with 30 minutes functionality, incl. 4 SU-S+ 2 x 6 A circuit assemblies plus space for 2 x 3-PM-IO modules.	40071362613
Automatic Test System AT-S+ ESF30 SU2	Distribution box for automatic test system with 30 minutes functionality, incl. 2 SU-S+ 2 x 6 A circuit assemblies	40071362612
Automatic Test System AT-S+ ESF30 SOU5	Distribution box for automatic test system with 30 minutes functionality, incl. 5 SOU-S+ 2 x 4 A circuit assemblies	40071362595
Automatic Test System AT-S+ ESF30 SOU4 IO	Distribution box for automatic test system with 30 minutes functionality, incl. 4 SOU-S+ 2 x 6 A circuit assemblies plus space for 2 x 3-PM-IO modules.	40071362594
Automatic Test System AT-S+ ESF30 SOU3	Distribution box for automatic test system with 30 minutes functionality, incl. 3 SOU-S+ 2 x 4 A circuit assemblies	40071362593
Automatic Test System AT-S+ ESF30 SOU2	Distribution box for automatic test system with 30 minutes functionality, incl. 2 SOU-S+ 2 x 4 A circuit assemblies	40071362592
Automatic Test System AT-S+ ESF30 SOU1	Distribution box for automatic test system with 30 minutes functionality, incl. 1 SOU-S+ 2 x 4 A circuit assemblies	40071362591
AT-S+ RV30-1	E30 junction box AT-S+RV30-1 for small cabinets type AT-S+/SU with 1 Neozed fuse inside	40036071033
Reduction	Reduction M32 to M20 cable glands for E30 junction boxes incl. M20 cable gland	40071071033

AT-S+ RV30-1



Central Battery Systems AC/AC

Automatic Test System AT-S+ with STAR+ Technology – Technical data

Type	AT-S+ C30	AT-S+ C16	AT-S+ C4	AT-S+ C0
Modules:				
Control module: CU-S+	1	1	1	1
DC/DC.2-converter	1	1	1	1
AC module	1	1	1	1
Switching unit SU S+ 2 x 6 A	0-30	0-16	0-4	–
Switching over unit SOU S+ 2 x 4 A	–	–	–	–
Safety load disconnecter mains feed	yes	yes	yes	–
Load disconnecter mains feed	–	–	–	yes
No. of branching distributors	6	6	4	–
Electrical cabinet construction:				
Rated voltage	400/230 V	400/230 V	400/230 V	230 V
Rated frequency	50 or 60 Hz	50 or 60 Hz	50 or 60 Hz	50 or 60 Hz
AC network	TN-C-S	TN-C-S	TN-C-S	TN-C-S
Insulation class	1	1	1	1
Degree of protection	IP20	IP20	IP54	IP54
Max. current rating mains [Σ L1, L2, L3] [A]	90	74	48	–
Max. rated power mains [KVA]	20.7	17	11	–
Three-phase distribution	yes	yes	yes	no
Connection cross-section for mains supply	50 mm ²	50 mm ²	50 mm ²	4 mm ²
Connection cross-section for branching distributors	16 mm ²	16 mm ²	16 mm ²	–
Max. conductor size final circuits	4 mm ²	4 mm ²	4 mm ²	4 mm ²
Max. number of final circuit terminals	60	32	8	–
Mechanical cabinet construction:				
Cabinet height (max.)	2050	1800	800	600
Cabinet width (max.)	800	600	600	400
Cabinet depth (max.)	400	400	250	250
Material	Sheet steel	Sheet steel	Sheet steel	Sheet steel
Design	Cabinet	Cabinet	Wall cabinet / surface mounted	Wall cabinet / surface mounted
Door stop	right	right	right	right
Outer coating	Textured powder paint	Textured powder paint	Textured powder paint	Textured powder paint
Colour	RAL 7035	RAL 7035	RAL 7035	RAL 7035
Partial viewing door	yes	yes	yes	yes
Lock	3 mm two-way	3 mm two-way	3 mm two-way	3 mm two-way
Cable entry from above	yes	yes	yes	yes
Cable entry from below	yes	yes	no	no
Base (optional)	100/200	100/200	–	–

*1 housing has insulation class II. The earth conductor must however be routed in the housing.

Central Battery Systems AC/AC

Automatic Test System AT-S+ with STAR+ Technology – Technical data

AT-S+ SU4	AT-S+ SU2	AT-S+ SU1	AT-S+ SOU2	AT-S+ SOU1
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
4	2	1	–	–
–	–	–	2	1
–	–	–	–	–
yes	yes	yes	yes	yes
–	–	–	–	–
230 V	230 V	230 V	230 V	230 V
50 or 60 Hz	50 or 60 Hz	50 or 60 Hz	50 or 60 Hz	50 or 60 Hz
TN-C-S	TN-C-S	TN-C-S	TN-C-S	TN-C-S
2*1	2*1	2*1	2*1	2*1
IP65	IP65	IP65	IP65	IP65
25	16	10	25	10
5,7	3,7	2,3	5,7	2,3
no	no	no	no	no
10 mm ²	10 mm ²	10 mm ²	10 mm ²	10 mm ²
–	–	–	–	–
4 mm ²	4 mm ²	4 mm ²	4 mm ²	4 mm ²
8	4	2	4	2
583	458	458	583	458
295	295	295	295	295
129	129	129	129	129
Plastic	Plastic	Plastic	Plastic	Plastic
Wall cabinet / surface mounted	Wall cabinet / surface mounted	Wall cabinet / surface mounted	Wall cabinet / surface mounted	Wall cabinet / surface mounted
right	right	right	right	right
–	–	–	–	–
RAL 7035	RAL 7035	RAL 7035	RAL 7035	RAL 7035
yes	yes	yes	yes	yes
on request	on request	on request	on request	on request
yes	yes	yes	yes	yes
yes	yes	yes	yes	yes
–	–	–	–	–

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