els spelsberg



Rapid-Box | Junction box - and connection enclosure for uncut cables up to 50 mm²































WKE Rapid-Box | The VDE- and MPA-certified combination switching device designed especially for tunnels, industrial halls and the construction industry (civil engineering)



- · Provision for connection of uncut cables up to 50 mm², including retro installation
- · Maintenance-free and secured insulation terminal
- · Pick-up via busbar by means of spring cage terminal block contact
- · Simpler cable-fitting during installation
- · More cost-effective and lower maintenance operation of the system
- Uncut cables mean un-interruptible power supply

Attributes

- · 2 basic versions:
- · Standard according to IEC 61439-2 (VDE)
- Functional integrity E30 / E60 / E90 according to EN 1363 (MPA)
- · 2 in-feeds with terminal for junction of uncut cable
- · Pre-wired to fuse / socket
- · External mounting points
- · Dimensions: 447 x 190 x 105 mm

Product variants

- · Fused junction with cable
- · CEE 3-pole sockets
- · CEE 5-pole sockets













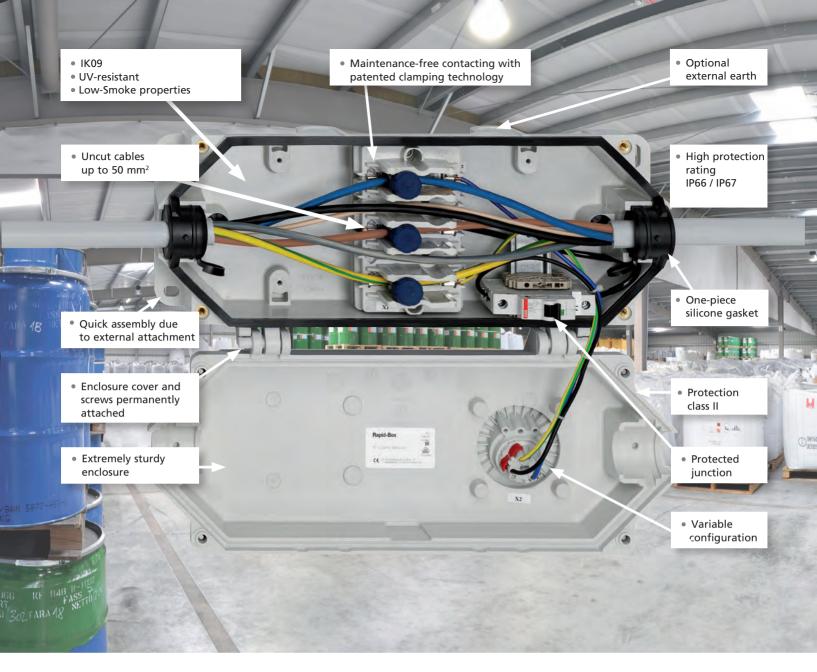








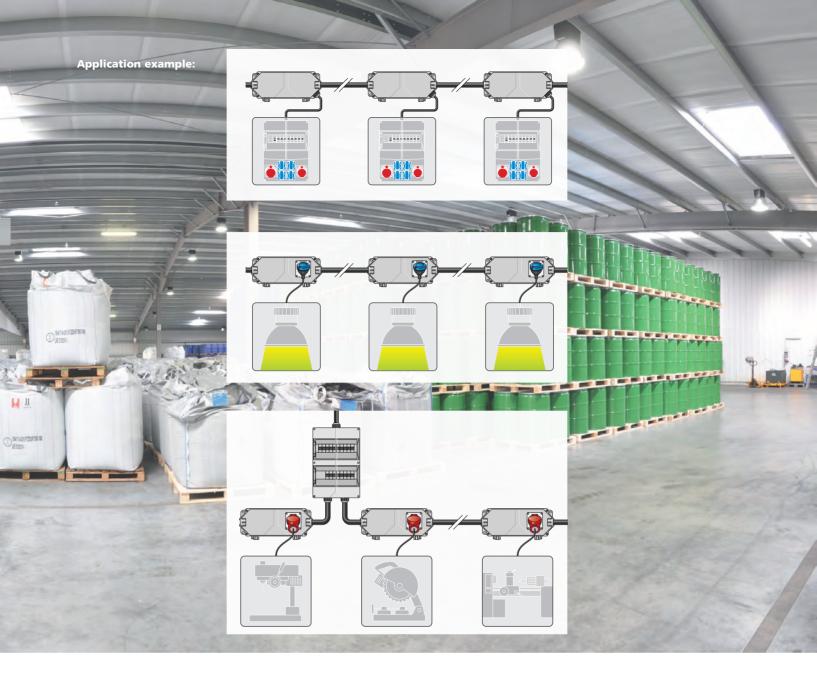




Principal benefits

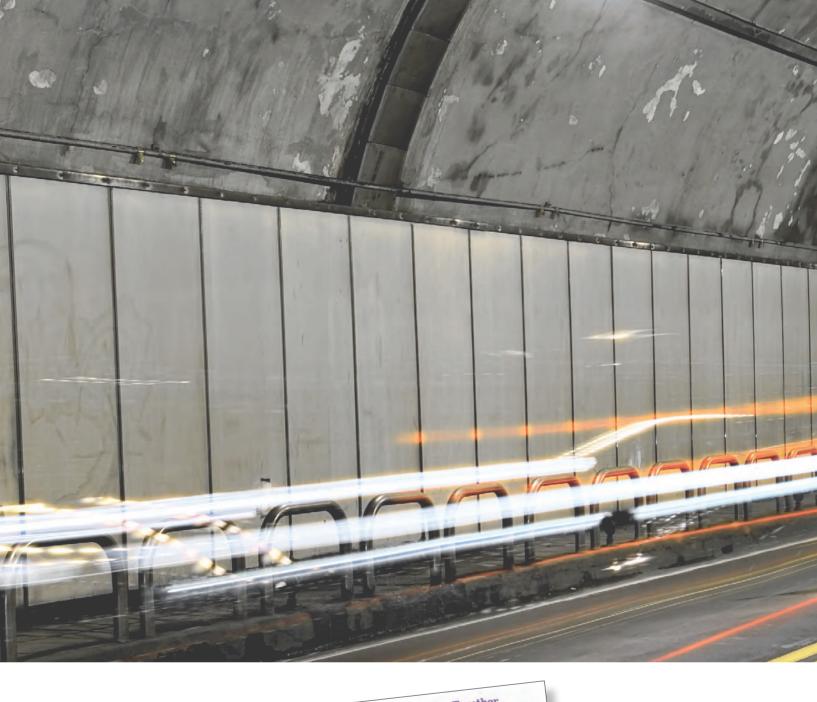
- Provision for uncut cables up to 50 mm² Cu, including retro installation Maintenance-free connection
- Extremely sturdy and UV-resistant material
- Installation with closed cover is possible using external mounting points
- Main terminal can also be used as connector terminal for two cut cables
- · Permanently-attached cover
- · Variable cover mount options
- Installation Options Ceiling-, wall- or cable-tray mounted
- Suitable for use in potentially corrosive areas

- · "Low Smoke" material
- Europe-wide approved according to EN 61439 (combination switching device)
- Europe-wide approved according to EN 1363, Germany according to DIN 4102-2 (fire-resistance test)



The benefits to you

- · VDE- and MPA- certified combination switching devices
- User-defined configuration with type-tested switching devices
- · Fast cable-fitting during installation
- Offers cost-saving connection (15 min /socket)
- · Reliable connection
- Retro connection to existing cables with no cutting
- · More cost-effective and lower maintenance operation of the system
- · Short delivery times thanks to standardised components
- · Pioneering fire-safety characteristics, limited smoke development in a fire
- · Serial number traceability



Compressive strength test as per specification of Alp Transit Gotthard AG

The load test:

- 200,000 load cycles (each cycle simulates the passing of a high-speed train at 250 km / h)
- · Over-pressure + 10 kPa
- Under-pressure -10 kPa

Test result:

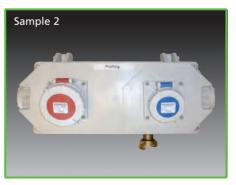
The Rapid Box still satisfies the requirements for enclosure rating IP66 / IP67 after this test

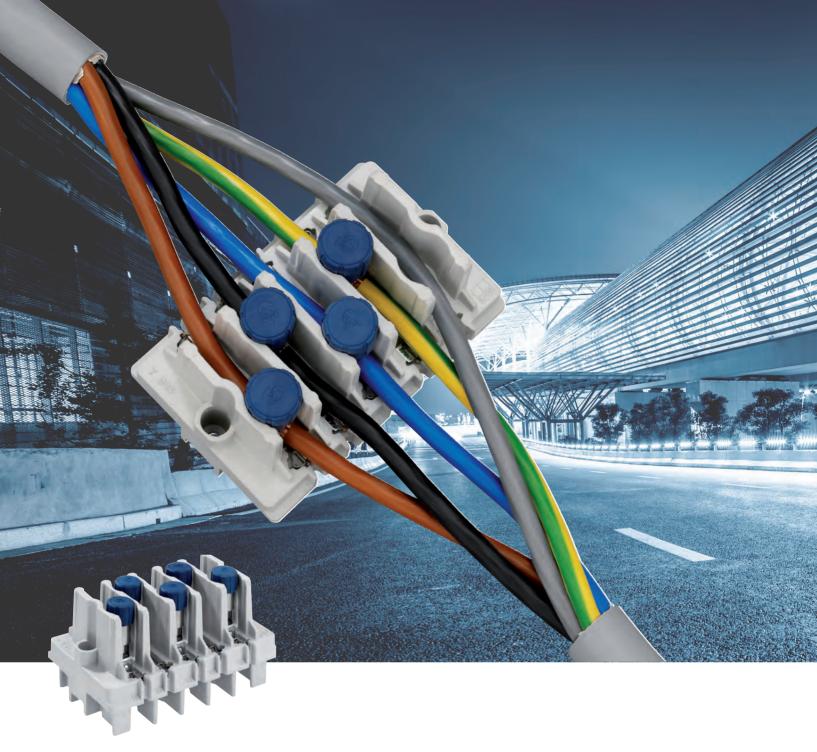
Pressure | suction test











Technical data for connection terminals

- · Variable terminal configuration, 2 5 pole
- · Maintenance-free, elevated terminal block
- Spring-loaded insulation nut for maintenance-free feed-through wiring
- · Spring-cage terminal for the junction

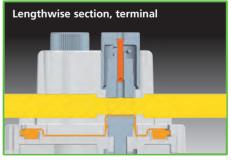
Connection cross-sections

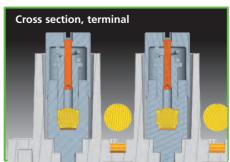
Main terminal

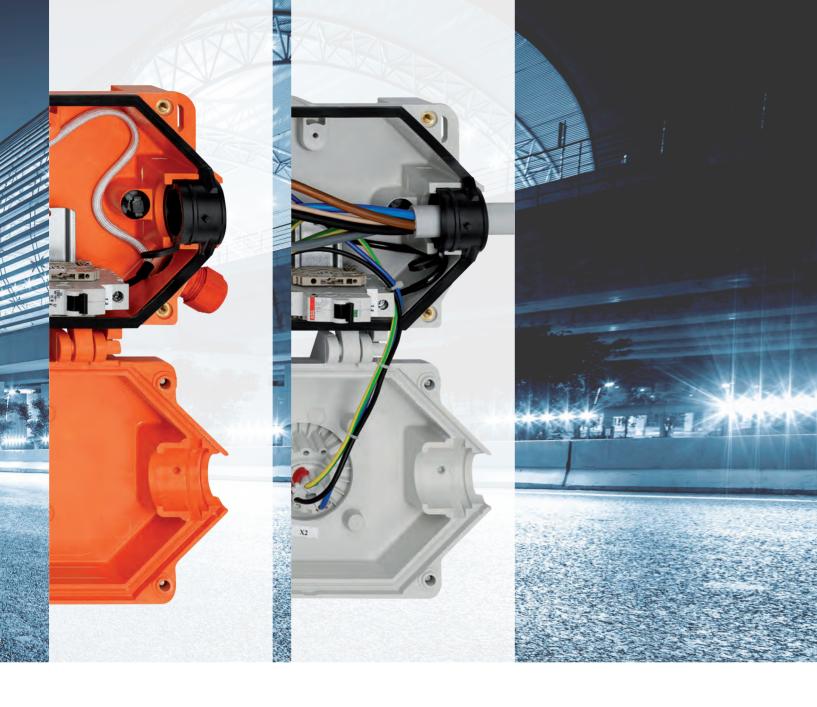
- Type I of 1x 2.5 16 mm²
 or max. 2 x 16 mm² re, rm
- Type II of 1x 10 50 mm² or max. 2 x 35 mm² re, rm Junction
- · 0.5 2.5 mm² re, rf; or 2.5 mm² compacted

Measurement currents

- · Type I: 76 A
- · Type II: 125 A
 Spring-cage terminal
- 2 x 24 A per pole, not fused, 10 A fused







Terminal variants

Description	Version	Cross section	Terminals
Y4-305-0205	Standard	16 mm²	2-5
Y4-315-0205	Standard	50 mm²	2-5
Y6-305-0205	Functional integrity	16 mm²	2-5
Y6-315-0205	Functional integrity	50 mm²	2-5

Technical data for seals

- One-piece silicon seals incl.
 Cable infeed
- · Cable infeeds Ø 9 34 mm
- · Standard: 9 -14 mm

Seal for optional cable diameter

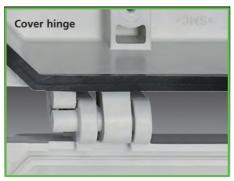
- 13 - 18 mm - 17 - 22 mm - 21 - 26 mm - 25 - 30 mm

- 29 - 32 mm - 32 - 34 mm



- · External mounting lugs for E60 / E90 variants
- · Connection to terminal fastening lug via cylinder head screw
- · Flexible cover configuration
- · Permanently-attached cover
- · Removable cover
- Cover screw stop to ensure the required pressure of the seal is achieved







- Each variant can be equipped with external earth by installation of a PE contact on the enclosure
- · Conducting connection between exterior and interior
- · Enclosure rating I
- Earthing of all metallic parts within the enclosure by contacting with external PE contact
- e.g. Hat-rail: Connection of the PE contact with LV by protective earth cable terminal
- In the case of external earth, no protective earth contact is required in the terminal



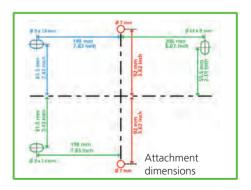
Rapid-Box | External earth

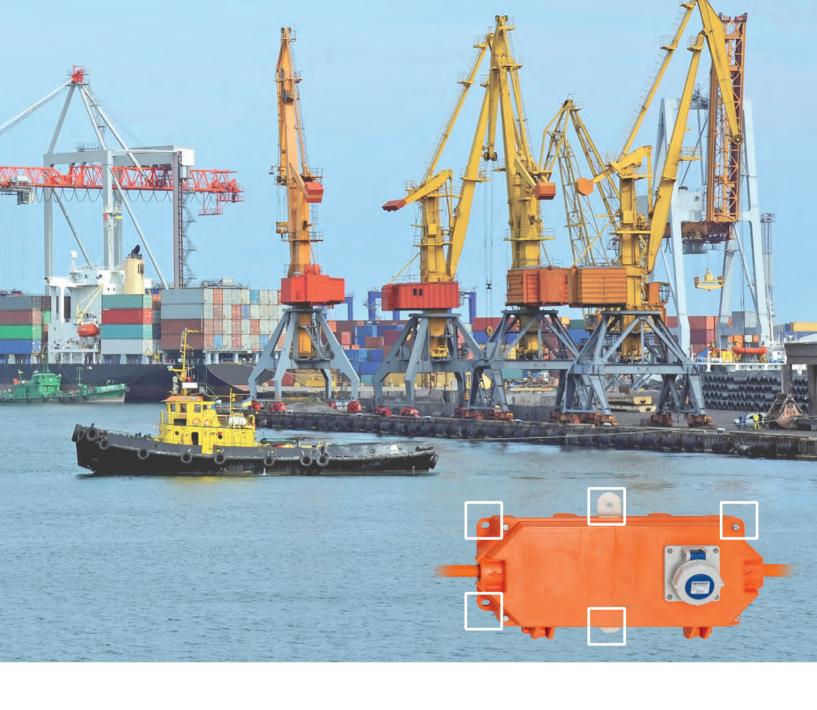


Assembly and installation may only be performed by skilled personnel. In this case the prevailing standards, installation regulations and accident prevention directives shall be observed. Disregard can result in damage to property and a risk to life and limb!

The Rapid-Box can be mounted horizontally or vertically. For assembly onto e.g. cable trays an additional lug is provided.

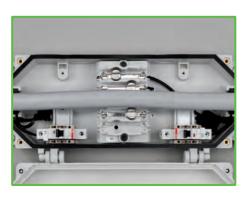
The functional integrity variants E60 and E90 must be additionally fixed with external attachment rails. The material used for this requires certification according to legal building requirements.





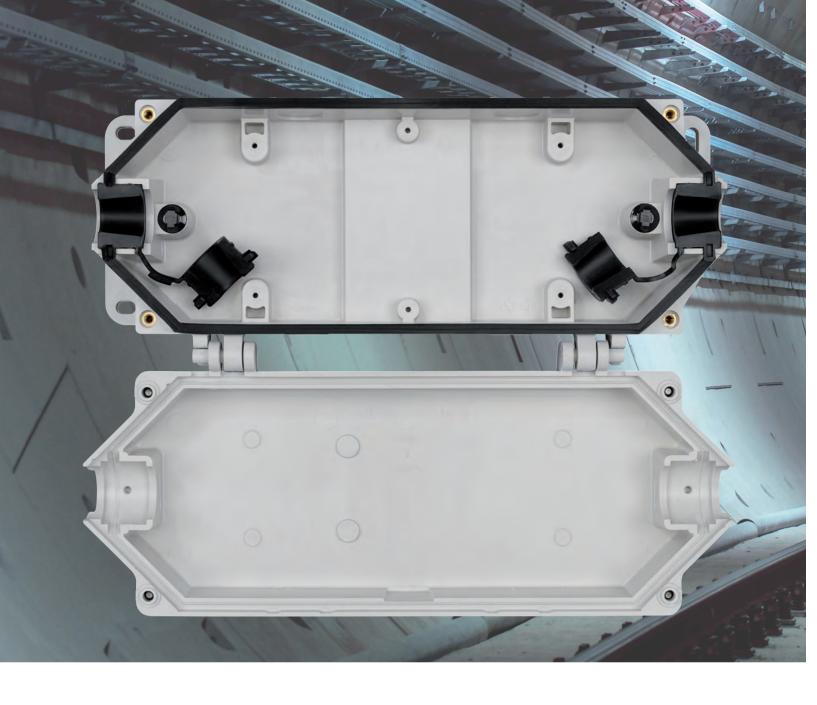
Connect any output cables before installation of the main cable! After completion of the enclosure assembly the cover is opened and the cable is laid loosely over the terminal. You now need to remove approx. 340 mm (13.5 inch) of the cable insulation.

This step is made easier if you mark the cable beforehand. After removing the insulation, bend the individual wires up and insert into the corresponding terminal apertures. Strip the cable at the corresponding contact points. In the case of the 16 mm² terminal the stripped section must be 18 to 23 mm wide. The 50 mm² terminal requires an exposed surface of 21 to 26mm. Hereagain, pre-marking is a good idea.





Terminal size	Width of insulation- stripping
16 mm²	18 – 23 mm 0.7 – 0.9 Inch
50 mm²	21 – 26 mm 0,8 – 1.0 lnch



Configure the *Rapid*-Box as required. There are 380 customer specific variants available via the different selection options!

The housing according to EN-61439 freely assignable. The power dissipation is 20 W.





External earth

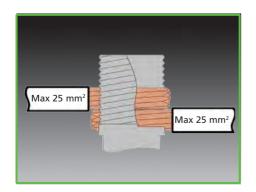
Feed-through terminal		2,5² - 16²	10² - 50²	2,5² - 16²	10² - 50²	2,5² - 16²	10² - 50²	2,5² - 16²	10² - 50²	2,5² - 16²	10² - 50²	2,5² - 16²	10² - 50²	2,5² - 16²	10² - 50²	2,5² - 16²	10² - 50²	2,5² - 16²	10² - 50²	2,5² - 16²	10² - 50²	Sapid-Box						
Configuration		1 fuse, 1-pole junction		1	z ruses, 1-pole junction	, de la companya de l	1 fuse, 1 socket, 3-pole		2 fuses, 2 sockets, 3-pole		3 fuses, 1 socket, 5-pole 6 fuses, 2 sockets, 5-pole		3 fuses, 1 socket, 5-pole		6 fuses, 2 sockets, 5-pole		E30, 1 1035, 1-pore junction		E30, 1 fuse, 1-pole junction		E30, 2 fuses, 1-gang junction		ESU, I IUSE, I SUCKEL S-POIE	E30, 2 fuses, 2 sockets, 3-pole		Configure vour Rapid-Box		
Rapid-Box result								204 444 04	301 141 01										301 431 01									
	Catalogue number		6														Б											
	Cable diameter / seal	0	_	0		0	_	0	(1)	0	_	0	-	-	_	1	-	(1)	-	1	1	1 = seal Ø 9 - 14 mm 2 = seal Ø 13 - 18 mm 3 = seal Ø 17 - 22 mm 4 = seal Ø 21 - 26 mm 5 = seal Ø 25 - 30 mm 6 = seal Ø 29 - 32 mm 7 = seal Ø 32 - 34 mm						
Design Item number	Configuration	-	-	2	J	٣		4		ır		ی		-	-	2		<u></u>		7		1 = 1 fuse and KVR 2 = 2 fuses and KVR 3 = 1 fuse, 1 socket, 3-pole 4 = 2 fuses, 2 socket, 3-pole 5 = 3 fuses, 1 socket, 5-pole 6 = 6 fuses, 2 socket, 5-pole						
	Version / clamping range	0	-	0	-	0	1	0	(1)	0	-	0	-	4	5	4	5	4	5	4	5	0 = Standard 16 ² 1 = Standard 50 ² 2 = E90 16 ² 3 = E90 50 ² 4 = E30 16 ² 5 = E60 16 ² 7 = E60 50 ²						
	Product no. Rapid-Box							301									(301)			Rapid-Box						
	_	snois19v b1sbnst2									Functional integrity					ıoun _:	4	9bos olameric code										



If the terminal is used as a connection terminal, the two ends of the cables must be clamped beneath a terminal point. The seal must be prepared before final insertion of the cable.

Smear the tapered area of the four sealing halves with the assembly compound POWERSIL Paste AP (available separately, item no. 492 590 01). This process should be repeated each time resealing is carried out.

You can now insert the cable. Screw the insulation nuts onto the terminal and tighten to the torque defined for the nuts. Push the protective caps onto the insulation nuts to finish.







Terminal size	Torque
16 mm²	6 Nm
50 mm²	10 Nm



To close the enclosure, position the two halves of the seal correctly and close the cover. Remove any dirt from the seal to guarantee optimum seal. Tighten the cover screws until the positioning markings meet without gaps.

The tightening torque of the cover screws may not exceed 6 Nm. Installation of the Rapid-Box combination switching device is now complete.



Junction box and connection enclosure certified in accordance with EN 61 439, maintenance-free terminal for uncut cables in feed- through, contacting at junction using maintenance-free spring clamp technology, simple attachment by external attachment points, halogen-free enclosure of special Duroplast, suitable for outdoor installation in accordance with EN 61439-2.



















Order no

301 011 01

301 021 01

Rapid-Box 2,5-16² KV 446 x 190 x 106 mm



Description

Terminal can withstand a rated current of max. 63 A, Clamping range for uncut cables 2.5² - 16², clamping range for cut cables 2.5² - 10²

Rapid-Box 2,5-16² KV 1 x S

1 fuse, sealing range cable diameter 9 - 14 mm, Terminal 16 mm², 1-pole pre-wired junction, Protected with 10 A circuit breaker

Rapid-Box 2,5-16² KV 2 x S

2 fuses, sealing range cable diameter 9 - 14 mm, Terminal 16 mm², 2-pole pre-wired junction, Protected with 10 A circuit breaker per pole

Rapid-Box 10-50² KV 446 x 190 x 106 mm



Note: When choosing: check cable diameter!

Terminal can withstand a rated current of max. 100 A, Clamping range for uncut cables 10^2 - 50^2 , Clamping range for cut cables 2.5^2 - 35^2

Rapid-Box 10-50² KV 1 x S

1 fuse, sealing range cable diameter 9 - 14 mm, Terminal 50 mm², 1-pole pre-wired junction, Protected with 10 A circuit breaker

Rapid-Box 10-50² KV 2 x S

2 fuses, sealing range cable diameter 9 - 14 mm, Terminal 50 mm², 2-pole pre-wired junction, Protected with 10 A circuit breaker per pole 301 121 01

301 111 01

Junction box and connection enclosure certified in accordance with EN 61 439, maintenance-free terminal for uncut cables in feed- through, contacting at junction using maintenance-free spring clamp technology, simple attachment by external attachment points, halogen-free enclosure of special Duroplast, suitable for outdoor installation in accordance with EN 61439-2.



















Rapid-Box 2,5-16² STV 446 x 190 x 161 mm





Rapid-Box 10-50² STV 446 x 190 x 161 mm





Description Order no

Terminal can withstand a rated current of max. 63 A, Clamping range for uncut cables 2.5² - 16², Clamping range for cut cables 2.5² - 10²

Rapid-Box 2,5-16 ² STV 1 x 3-polig 1 fuse, sealing range cable diameter 9 - 14 mm, 16 mm ² terminal, cover with 3-pole CEE socket, pre-wired with circuit breakers	301 031 01
Rapid-Box 2,5-16 ² STV 2 x 3-polig 2 fuses, sealing range cable diameter 9 - 14 mm, 16 mm ² terminal, cover with two 3-pole CEE sockets, pre-wired with circuit breakers	301 041 01
Rapid-Box 2,5-16 ² STV 1 x 5-polig 3 fuses, sealing range cable diameter 9 - 14 mm, 16 mm ² terminal, cover with 5-pole CEE socket, pre-wired with circuit breakers	301 051 01
Rapid-Box 2,5-16 ² STV 2 x 5-polig 6 fuses, sealing range cable diameter 9 - 14 mm, 16 mm ² terminal, cover with 5-pole CEE socket, pre-wired with circuit breakers	301 061 01

Note: When choosing: check cable diameter!

Terminal can withstand a rated current of max. 100 A, Clamping range for uncut cables 10^2 - 50^2 , Clamping range for cut cables 2.5^2 - 35^2

Rapid-Box 10-50 ² STV 1 x 3-polig 1 fuse, sealing range cable diameter 9 - 14 mm, 50 mm ² terminal, cover with 3-pole CEE socket, pre-wired with circuit breakers	301 131 01
Rapid-Box 10-50 ² STV 2 x 3-polig 2 fuses, sealing range cable diameter 9 - 14 mm, 50 mm ² terminal, cover with two 3-pole CEE sockets, pre-wired with circuit breakers	301 141 01
Rapid-Box 10-50 ² STV 1 x 5-polig 3 fuses, sealing range cable diameter 9 - 14 mm, 50 mm ² terminal, cover with 5-pole CEE socket, pre-wired with circuit breakers	301 151 01
Rapid-Box 10-50 ² STV 2 x 5-polig 6 fuses, sealing range cable diameter 9 - 14 mm, 50 mm ² terminal, cover with 5-pole CEE socket, pre-wired with circuit breakers	301 161 01

Junction box- and connection enclosure approved according to EN 61 439, MPA checked as per DIN 4102-2 and EN 1363-2, functional integrity in the feed-through 30 minutes for cable E30, suitable for max. 5-pole E30 cable, maintenance-free terminal for uncut cables in feed-through, contacting at junction using maintenance-free spring clamp technology, simple attachment by external attachment points, halogen-free enclosure of special Duroplast, suitable for outdoor installation in accordance with EN 61439-2.





















Rapid-Box E30 2,5-16² KV

446 x 190 x 106 mm



Beschreibung Bestell-Nr.

Terminal can withstand a rated current of max. 63 A, Clamping range for uncut cables 2.52 - 162, Clamping range for cut cables 2.5² - 10²

Rapid-Box E30 2,5-162 KV 1 x S

1 fuse, sealing range cable diameter 9 - 14 mm, Terminal 16 mm², 1-pole pre-wired junction, Protected with 10 A circuit breaker

Rapid-Box E30 2,5-162 KV 2 x S

2 fuses, sealing range cable diameter 9 - 14 mm, Terminal 16 mm², 2-pole pre-wired junction, Protected with 10 A circuit breaker per pole

301 411 01

301 421 01

Rapid-Box E30 10-50² KV 446 x 190 x 106 mm



Note: When choosing: check cable diameter!

KV terminal can withstand a rated current of max. 100 A, Clamping range for uncut cables 10² - 50², Clamping range for cut cables 2.5² - 35²

Rapid-Box E30 10-50² KV 1 x S

1 fuse, sealing range cable diameter 9 - 14 mm, Terminal 50 mm², 1-pole pre-wired junction, Protected with 10 A circuit breaker

Rapid-Box E30 10-50² KV 2 x S

2 fuses, sealing range cable diameter 9 - 14 mm, Terminal 50 mm², 2-pole pre-wired junction, Protected with 10 A circuit breaker per pole

301 521 01

301 511 01

Junction box- and connection enclosure approved according to EN 61 439, MPA checked as per DIN 4102-2 and EN 1363-2, functional integrity in the feed-through 30 minutes for cable E30, suitable for max. 5-pole E30 cable, maintenance-free terminal for uncut cables in feed-through, contacting at junction using maintenance-free spring clamp technology, simple attachment by external attachment points, halogen-free enclosure of special Duroplast, suitable for outdoor installation in accordance with EN 61439-2.



















Rapid-Box E30 2,5-16² STV 446 x 190 x 161 mm



Description Order no

Terminal can withstand a rated current of max. 63 A, Clamping range for uncut cables 2.5² - 16², Clamping range for cut cables 2.5² - 10²

Rapid-Box E30 2,5-16² STV 1 x 3-polig

1 fuse, sealing range cable diameter 9 - 14 mm, 16 mm² terminal, cover with 3-pole CEE socket, pre-wired with circuit breakers

Rapid-Box E30 2,5-16² STV 2 x 3-polig

2 fuses, sealing range cable diameter 9 - 14 mm, 16 mm² terminal, cover with two 3-pole CEE sockets, pre-wired with circuit breakers 301 441 01

301 431 01

Rapid-Box E30 10-50² STV

446 x 190 x 161 mm



Note: When choosing: check cable diameter!

Terminal can withstand a rated current of max. 100 A, Clamping range for uncut cables $10^2 - 50^2$, Clamping range for cut cables $2.5^2 - 35^2$

Rapid-Box E30 10-50² STV 1 x 3-polig

1 fuse, sealing range cable diameter 9 - 14 mm, 50 mm² terminal, cover with 3-pole CEE socket, pre-wired with circuit breakers

Rapid-Box E30 10-50² STV 2 x 3-polig

2 fuses, sealing range cable diameter 9 - 14 mm, 50 mm² terminal, cover with two 3-pole CEE sockets, pre-wired with circuit breakers

301 541 01

301 531 01

Junction box- and connection enclosure approved according to EN 61 439, MPA checked as per DIN 4102-2 and EN 1363-2, functional integrity in feed-through 90 minutes for cable E90, suitable for max. 5-pole E90 cable, maintenance-free terminal for uncut cables in feed-through, contacting at branch using maintenance-free spring clamp technology, simple attachment by external attachment points, halogen-free enclosure of special Duroplast, suitable for outdoor installation in accordance with EN 61439-2.



















Order no

301 221 01

Rapid-Box E90 2,5-16² KV

446 x 220 x 106 mm



Description

Terminal can withstand a rated current of max. 63 A, Clamping range for uncut cables 2.52 - 162,

Clamping range for cut cables 2.5² - 10²

Rapid-Box E90 2,5-162 KV 1 x S

301 211 01 1 fuse, sealing range cable diameter 9 - 14 mm, Terminal 16 mm², 1-pole pre-wired junction,

Protected with 10 A circuit breaker, with external attachment lugs

Rapid-Box E90 2,5-16² KV 2 x S

2 fuses, sealing range cable diameter 9 - 14 mm, Terminal 16 mm², 2-pole pre-wired junction, Protected with 10 A circuit breaker at each pole, with external attachment lugs

Note: When choosing: check cable diameter!

Terminal can withstand a rated current of max. 100 A, Clamping range for uncut cables 10² - 50², Clamping range for cut cables 2.5² - 35²

Rapid-Box E90 10-50² KV 446 x 220 x 106 mm



Rapid-Box E90 10-50² KV 1 x S

1 fuse, sealing range cable diameter 9 - 14 mm, Terminal 50 mm², 1-pole pre-wired junction, Protected with 10 A circuit breaker, with external attachment lugs

Rapid-Box E90 10-50² KV 2 x S

2 fuses, sealing range cable diameter 9 - 14 mm, Terminal 50 mm², 2-pole pre-wired junction, Protected with 10 A circuit breaker at each pole, with external attachment lugs

301 321 01

301 311 01

Junction box- and connection enclosure approved according to EN 61 439, MPA checked as per DIN 4102-2 and EN 1363-2, functional integrity in feed-through 90 minutes for cable E90, suitable for max. 5-pole E90 cable, maintenance-free terminal for uncut cables in feed-through, contacting at branch using maintenance-free spring clamp technology, simple attachment by external attachment points, halogen-free enclosure of special Duroplast, suitable for outdoor installation in accordance with EN 61439-2.





















Rapid-Box E90 2,5-16² STV

446 x 220 x 161 mm





Description Order no

Terminal can withstand a rated current of max. 63 A, Clamping range for uncut cables 2.52 - 162, Clamping range for cut cables 2.5² - 10²

Rapid-Box E90 2,5-16 ² STV 1 x 3-polig 1 fuse, sealing range cable diameter 9 - 14 mm, 16 mm ² terminal, cover with 3-pole CEE socket, pre-wired with circuit breakers, with external attachment lugs	301 231 01
Rapid-Box E90 2,5-16 ² STV 2 x 3-polig 2 fuses, sealing range cable diameter 9 - 14 mm, 16 mm ² terminal, cover with two 3-pole CEE sockets, pre-wired with circuit breakers, with external attachment lugs	301 241 01
Rapid-Box E90 2,5-16 ² STV 1 x 5-polig 3 fuses, sealing range cable diameter 9 - 14 mm, 16 mm ² terminal, cover with 5-pole CEE socket, pre-wired with circuit breakers, with external attachment lugs	301 251 01
Rapid-Box E90 2,5-16 ² STV 2 x 5-polig 6 fuses, sealing range cable diameter 9 - 14 mm, 16 mm ² terminal, cover with 5-pole CEE socket, pre-wired with circuit breakers, with external attachment lugs	301 261 01

Rapid-Box E90 10-50² STV

446 x 220 x 161 mm





Note: When choosing: check cable diameter!

Terminal can withstand a rated current of max. 100 A, Clamping range for uncut cables 10² - 50², Clamping range for cut cables 2.5² - 35²

Rapid-Box E90 10-50 ² STV 1 x 3-polig 1 fuse, sealing range cable diameter 9 - 14 mm, 50 mm ² terminal, cover with 3-pole CEE socket, pre-wired with circuit breakers, with external attachment lugs	301 331 01
Rapid-Box E90 10-50 ² STV 2 x 3-polig 2 fuses, sealing range cable diameter 9 - 14 mm, 50 mm ² terminal, cover with two 3-pole CEE sockets, pre-wired with circuit breakers, with external attachment lugs	301 341 01
Rapid-Box E90 10-50 ² STV 1 x 5-polig 3 fuses, sealing range cable diameter 9 - 14 mm, 50 mm ² terminal, cover with 5-pole CEE socket, pre-wired with circuit breakers, with external attachment lugs	301 351 01
Rapid-Box E90 10-50 ² STV 2 x 5-polig 6 fuses, sealing range cable diameter 9 - 14 mm, 50 mm ² terminal, cover with 5-pole CEE socket, pre-wired with circuit breakers, with external attachment lugs	301 361 01

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