



BIG, EVEN IN A SMALL SCALE.

Unbreakable, resistant to most oils, acids and alkalis, flame retardant and corrosion resistant: Plug connections made of solid rubber are a plus in every aspect. Use our extensive range of CEE and special connectors in extraordinary situations or choose one of our standard plastic connectors for everyday use.

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Features

Solid rubber plug connectors



Features

Plastic plug connectors



Solid rubber

Plug connections made of solid rubber are made of 100% vulcanised, self-extinguishing butyl caoutchouc (Shore hardness 97) in accordance with VDE 0471 part 2.2. They are resistant to oils, various acids and alkalis as well as showers of sparks from welding.



Plastic

We guarantee a heavy load-bearing capacity as well as high impact resistance in our plastic products. The selected material is UV- and media-resistant as well as heat and cold resistant (from -40°C to 80°C). The right solution for typical use in trade and industry.



Vulcanised

VA, double anchor screws with stainless brass press-in sockets are inserted into the housing. The peer-to-peer material connection and the solid rubber provide maximum impermeability and the avoidance of condensation due to e.g., temperature fluctuations.



Connected accurately

All components have been manufactured and assembled according to the current quality standards.



Durability

Featuring elastic deformability that leads to reducing the possibility of breakage due to the use of solid rubber. Suitable for use in demanding environments.



Range of application

KU connectors are used daily in industrial applications under normal, ambient conditions. Durable and reliable.



Tension

Proven to relieve tension in the connecting cable. Safe, practical and durable.



Quick acting closure

Built-in tension relief thanks to the simple twist-closing of cap and housing receptacle.

The principle of the voltage clock (time setting)

The position of the protective earth contact relative to the unchangeable lug or slot on the housing indicates the time. The lug or slot is in the 6 o'clock position on all designs. Unlike the lug or slot, the protective earth contact takes its standardised time setting from the required electrical values. In order to facilitate simple product identification, the various clock settings are assigned based on the colours defined by the standard.

The position of the protective contact socket relative to the polarising slot for various operating voltages (V) and frequencies (Hz) based on IEC 60309.

Operating voltage colours

20-25 V
40-50 V
100-130 V
200-250 V
380-480 V
500-690 V
>60-500 Hz

Identifying

violet
white
yellow
blue
red
black
green

Time setting on the protective contact and coloured identification:

	4 o'clock	9 o'clock	6 o'clock	11 o'clock	7 o'clock	5 o'clock	12 o'clock	1 o'clock	10 o'clock	2 o'clock	3 o'clock	8 o'clock
Frequency in Hz	50-60	50-60	50-60	60	50-60	50-60	50-60	–	100-300	Over 300 Up to 500	50-60	
Voltage in V	57/100 – 75/130	120/208 – 144/250	200/346 – 240/415	250/400 – 265/460	277/480 – 288/500	347/600 – 400/690		Over 50	Over 50	Over 50	220/380 – 250/440 16+32 A	
5-pole 3P+N+E												
Voltage in V	100-130	200-250	380-415	440-460	480-500	600-690	Voltages after isolating transformer*		Over 50	Over 50	380-440 only for 16+32 A	
4-pole 3P+E												
Voltage in V	100-130	380-415	200-250		480-500	277*	Voltages after isolating transformer		*		> 50 - 250 direct current	> 250 direct current
3-pole 2P+E												

View of the front of the coupling sockets on the contact sockets / 63A + 125A plug connections with pilot contact

*These designs are not standardised.

Position of the auxiliary lug relative to the base lug for voltages up to 50 V and frequencies up to 500 Hz and colour identification:


	–	12 o'clock	4 o'clock	2 o'clock	3 o'clock	11 o'clock	10 o'clock
Frequency in Hz	50-60	50-60	100-200	300	400	Over 400 Up to 500	GS
Voltage in V 2-pole	20-25	40-50	40-50	Up to 50	Up to 50	Up to 50	Up to 50
3-pole							

View of the front of the coupling sockets on the contact sockets

Solid rubber / plastic protective contact plug connectors

Solid rubber protective contact plug connectors

Product features

- Resistant to most oils, acids and alkalis
- Chromated screws
- Flame-retardant as per EN 60695-2-13
- Corrosion-resistant as per IEC 60884-1
- Screwless, outer strain relief (shortened connection time)
- Heat resistance from -40°C to + 120°C
- Unbreakable solid rubber body, apart from protective contact built-in socket
- Large connecting spaces ensure problem-free connection of the supply cable to the plugs, connectors and sockets.
- Simple connection technique
- Ergonomic shape for perfect ease of handling
-  for harsh conditions



Plastic protective contact plug connectors

Product features

- Resistant to most oils, acids and alkalis
- SS screws set in brass press-fit bushings with dual anchor
- Flame-retardant as per DIN IEC 695
- Unbreakable solid rubber body
- Corrosion-resistant
- Large connecting spaces ensure problem-free connection of the supply cable to the plugs, connectors and sockets.
- Ergonomic shape for perfect ease of handling

Protective contact plug

Item no.	Pole No.	Amperes	Protection category
108071	2P+E	16	IP 44

Protective contact connector

Item no.	Pole No.	Amperes	Protection category
108113	2P+E	16	IP 44

Protective contact 3-way connector

Item no.	Pole No.	Amperes	Protection category
102328	2P+E	16	IP 44

Protective contact built-in socket (made from plastic) with flap cover and flange seal

Item no.	Pole No.	Amperes	Protection category
246198	2P+E	16	IP 54*

*Note! Compliant with BGI 608. IP 54 when connected!

Solid rubber low-voltage CEE plug connectors for 24/42 V

Product features

- Resistant to most oils, acids and alkalis
- SS screws set in brass press-fit bushings with dual anchor
- Flame-retardant as per DIN IEC 695
- Unbreakable solid rubber body
- Corrosion-resistant
- Large connecting spaces ensure problem-free connection of the supply cable to the plugs, connectors and sockets.
- Ergonomic shape for perfect ease of handling

CEE plug

Item no. 24V 50-60 Hz	Item no. 42V 50-60 Hz	Pole No.	Amperes	Protection category IP
239558		2	16	54
	239640	2	16	54



CEE connector

Item no. 24V 50-60 Hz	Item no. 42V 50-60 Hz	Pole No.	Amperes	Protection category IP
101545		2	16	54
	108197	2	16	54



CEE built-in socket

Item no. 24V 50-60 Hz	Item no. 42V 50-60 Hz	Pole No.	Amperes	Protection category IP
101550		2	16	54
	102771	2	16	54



CEE mounted socket (not shown)

Item no. 24V 50-60 Hz	Item no. 42V 50-60 Hz	Pole No.	Amperes	Protection category IP
101547		2	16	54
	102765	2	16	54

Solid rubber CEE plug connectors

Solid rubber CEE plug connectors for 230V/400V

Product features

- Resistant to most oils, acids and alkalis
- SS screws set in brass press-fit bushings with dual anchor
- Flame-retardant as per DIN IEC 695
- Unbreakable solid rubber body
- Corrosion-resistant
- Large connecting spaces ensure problem-free connection of the supply cable to the plugs, connectors and sockets.
- Ergonomic shape for perfect ease of handling



IP 44

CEE plug

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Pole No.	Amperes	Protection category IP
122183		3	16	44
	107183	5	16	44
	107165	5	32	44
	118827	5	63	67



IP 44

CEE connector

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Pole No.	Amperes	Protection category IP
120150		3	16	44
	107147	5	16	44
	107134	5	32	44



IP 44

CEE built-in socket

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Pole No.	Amperes	Protection category IP
101401		3	16	44
	101993	5	16	44
	102095	5	32	44



IP 44

CEE mounted socket

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Pole No.	Amperes	Protection category IP
101394		3	16	44
200278		5	32	44
	101978	5	16	44
	102085	5	32	44

Plastic low-voltage CEE plug connectors for 24/42 V and high frequency

Product features

- Excellent impact resistance combined with first-class stability
- High thermal stability
- Very good insulating properties
- High dielectric strength
- High wear resistance
- High weather resistance
- Excellent chemical resistance to a large number of different chemicals
- Temperature resistant from -25°C to +80°C, for a short time
1 h + 100°C
- Contacts made from a copper/zinc alloy with high electrical conductivity, high tensile strength and high corrosion resistance

CEE plug

Item no. 24V 50-60Hz	Item no. 42V 50-60Hz	Item no. >50-500V 100-300 Hz	Pole No.	Amperes	Protection category IP
235293			2	16	44
279346			2	32	44
	240057		2	16	44
	240059		2	32	44
		231183	4	16	44
		262474	4	32	44



CEE connector

Item no. 24V 50-60Hz	Item no. 42V 50-60Hz	Item no. >50-500V 100-300Hz	Pole No.	Amperes	Protection category IP
244364			2	16	44
279347			2	32	44
	240058		2	16	44
	240060		2	32	44
		264656	4	16	44
		256393	4	32	44



CEE built-in socket straight design

Item no. 24V 50-60Hz	Item no. 42V 50-60Hz	Item no. >50-500V 100-300Hz	Pole No.	Amperes	Protection category IP
248891			2	16	44
259481			2	32	44
	240201		2	16	44
	262216		2	32	44
		209188	4	16	44
		255918	4	32	44



Plastic CEE plug connectors for 230V/400V/500V

Product features

- Excellent impact resistance combined with first-class stability
- High thermal stability
- Very good insulating properties
- High dielectric strength
- High wear resistance
- High weather resistance
- Excellent chemical resistance to a large number of different chemicals
- Temperature resistant from -25°C to +80°C, for a short time
1 h + 100°C
- Contacts made from a copper/zinc alloy with high electrical conductivity, high tensile strength and high corrosion resistance



CEE plug

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Item no. 500V 50-60 Hz	P o l e No.	Amperes	Protection category IP
269081			3	16	44
253627			3	32	44
277555			3	63	67
	240573		5	16	44
	240572		5	32	44
	233756		5	63	67
		259310	4	16	44
		245003	4	32	44
		244075	4	63	67

CEE connector

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Item no. 500V 50-60 Hz	P o l e No.	Amperes	Protection category IP
236154			3	16	44
253626			3	32	44
277557			3	63	67
	240575		5	16	44
	240574		5	32	44
	233758		5	63	67
		259311	4	16	44
		245004	4	32	44
		245002	4	63	67

CEE built-in socket angled design

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Item no. 500V 50-60 Hz	P o l e No.	Amperes	Protection category IP
200080			3	16	44
209820			3	32	44
277824			3	63	67
	200081		5	16	44
	200079		5	32	44
	133807		5	63	67
		242376	4	16	44
		241843	4	32	44
		241840	4	63	67

Plastic CEE plug connectors for 230V/400V/500V

Product features

- Excellent impact resistance combined with first-class stability
- High thermal stability
- Very good insulating properties
- High dielectric strength
- High wear resistance
- High weather resistance
- Excellent chemical resistance to a large number of different chemicals
- Temperature resistant from -25°C to +80°C, for a short time
1 h + 100°C
- Contacts made from a copper/zinc alloy with high electrical conductivity, high tensile strength and high corrosion resistance

CEE built-in socket straight design

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Item no. 500V 50-60 Hz	P o l e No.	Amperes	Protection category IP
200195			3	16	44
230501			3	32	44
279345			3	63	67
	203538		5	16	44
	203537		5	32	44
	125273		5	63	67
		208969	4	16	44
		202925	4	32	44
		202802	4	63	67



IP 44



IP 67

CEE mounted socket

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Item no. 500V 50-60 H	P o l e No.	Amperes	Protection category IP
	269084		5	16	44
	269085		5	32	44
	259996		5	63	67
		254371	4	16	44
		279429	4	32	44
		279430	4	63	67



IP 44



IP 67

CEE built-in connector plug

Item no. 230V 50-60 Hz	Item no. 400V 50-60 Hz	Item no. 500V 50-60 H	P o l e No.	Amperes	Protection category IP
101410			3	16	44
	102003		5	16	44
	102103		5	32	44
	102246		5	63	67
		124772	4	16	44
		103163	4	32	44
		103201	4	63	67



IP 44



IP 67



As a result of the increased demand for temporary power generators which operate with high-voltage current in the areas of entertainment and industrial applications, selection of the high-current connector is particularly important, in order to guarantee safety and reliability for any application.

The single-pole Powersafe connectors were developed for the connection of single- and three-phase high-current circuits. They have been used and tested in the world's harshest environments, from the oil fields of Canada to data processing centres in the Arctic Circle. They are the right choice for demanding applications on account of their impressive technical capacity, safety functions, robust design, reliability and quality.

The standard safety functions include an additional locking system which requires a key to activate the connection. In addition, all electrical contacts on all plugs have finger-proof protection against electric shock, whereby the risk of accidental contact when switching on the connector is reduced.

The connectors are available in line and panel mount format with either crimp or screw contacts. The Powersafe connectors can be used with single-core cables between 25 and 300 mm² for high current connections up to 800 A and are currently the highest rated and safest connectors of their type on the market.

High current carrying capacity

The Powersafe connector's advanced contact design achieves its 800 A* continuous rating by utilising an arrangement of 29 transfer bridges. Each transfer bridge is rated at 30 A, giving a total of 870 A per contact.

*Subject to environmental factors, cable choice, etc.

Technical Data

No. of contacts:	1
Max. continuous current rating:	up to 800 A
Surge current:	75 kA
Short circuit rating:	up to 35.5 kA
Cable cross sectional area C.S.A:	25 mm ² to 300 mm ²
Contact termination:	Screw or crimp connection
Mating method:	Bayonet lock
Operating voltage:	1'000 VAC
Max. rated voltage to earth:	2 kVAC/3 kVDC
Min. flashover:	9.5 kVDC
Insulation resistance:	>5 MOhm@500VDC
Protection category:	IP67
Protection against electric shock:	IP2X
Flammability:	UL94-V0
Mating cycles:	> 500
Material housing:	thermoplastic
Contact area:	silver

Product features

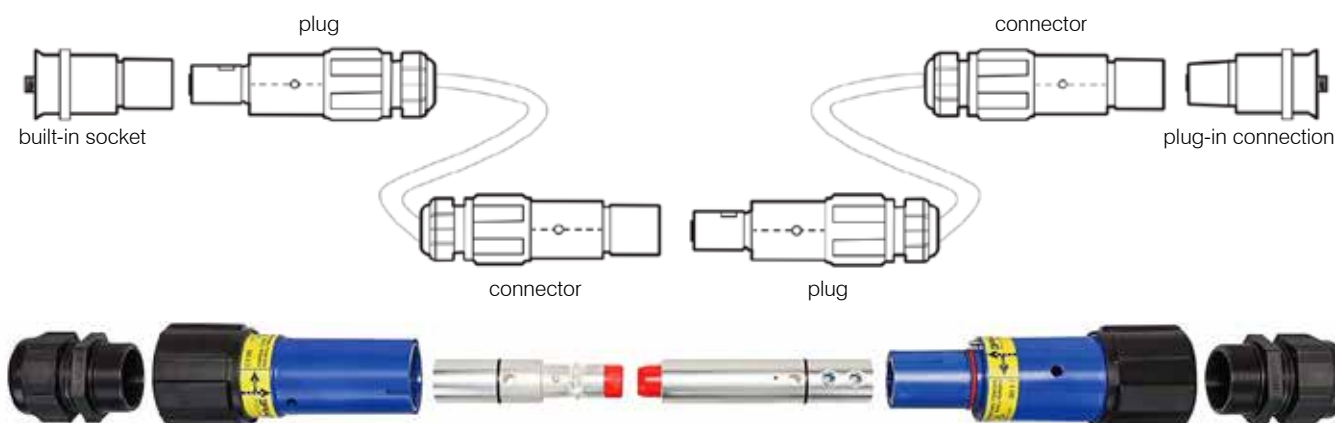
- maximum continuous current rating 800 A
- colour coded and mechanically keyed to prevent connection errors
- Flame retardant UL94-V0
- Locking mechanism to prevent accidental disconnection under load
- Finger proof contacts both genders (IP2X) to prevent access to electrical contacts when uncoupled
- silver-coated, self-cleaning contacts
- enhanced impact-resistant housing
- Protection category IP67
- for cables between 25 mm² and 300 mm²
- temperature resistant materials
- integrated cable strain relief
- Cable glands with generous clamping range
- Rubber protective caps to protect connectors from moisture, dirt and abrasion when uncoupled (optional)
- compatible with PowerLock
- CE-konform in EN 60309-1, DIN-EN 61984 and IEC 60900



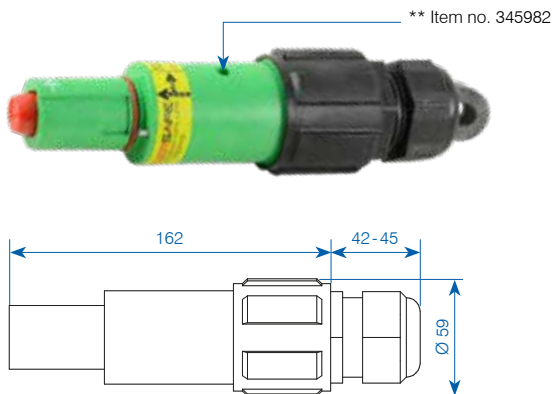
Video tutorial for Powersafe assembly

You will find further technical information in the Powersafe connector crimping guide

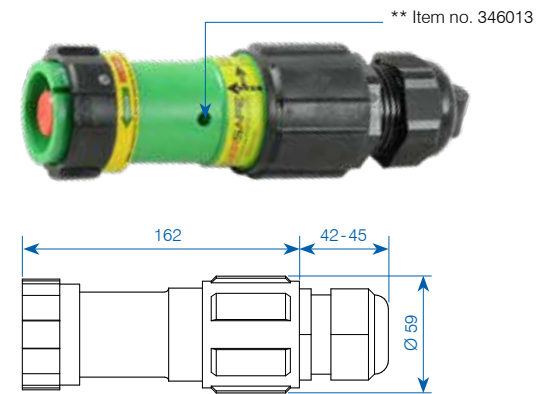
System



Plug



Connector with Rotalock



Plug

Cable cross section	25-150mm ²	120mm ²	150mm ²	185mm ²	240mm ²	300mm ²	Protective cap IP67
Cable diameter	19-28mm	19-28mm	22-34mm	22-34mm	30-38mm	30-38mm	
Crimp connection		✓	✓	✓	✓	✓	
Screw connection	✓						
Amperes	max. 500A	max. 500A	max. 500A	max. 500A	max. 800A	max. 800A	Item no.
	Item no.	Item no.	Item no.	Item no.	Item no.	Item no.	
PE	Yellow-green	345976	287864	287859	301218	345983	
N	Blue	345977	287863	287858	301638	345984	
L1	Brown	345978	287860	287855	287563	345985	
L2	Black	345979	287861	287856	287564	345986	
L3	Grey	345980	287862	287857	287565	345987	292094

¹ Powersafe reducing sleeve set 95 mm² / 70 mm² / 50 mm² / 35 mm² / 25 mm² (Item no. 345981) incl. grommet

² Locking pin for Line-Drain 500A+800A: Item no. 345982 (47 mm)

Coupling with Rotalock

Cable cross section	25-150mm ²	120mm ²	150mm ²	185mm ²	240mm ²	300mm ²	Protective cap IP67
Cable diameter	19-28mm	19-28mm	19-28mm	22-34mm	22-34mm	22-34mm	
Crimp connection		✓	✓	✓	✓	✓	
Screw connection	✓						
Amperes	max. 500A	max. 500A	max. 500A	max. 500A	max. 800A	max. 800A	Item no.
	Item no.	Item no.	Item no.	Item no.	Item no.	Item no.	
PE	Yellow-green	329191	345990	288915	345995	288418	
N	Blue	346014	345991	288914	345996	288421	
L1	Brown	329186	345992	288911	345997	288422	
L2	Black	329187	345993	288912	345998	288423	
L3	Grey	329188	345994	288913	345999	288424	346004

¹ Powersafe reducing sleeve set 95 mm² / 70 mm² / 50 mm² / 35 mm² / 25 mm² (Item no. 345981) incl. grommet

² Locking pin for Line-Drain 500A+800A: Item no. 346013 (43 mm)



² Item no. 345982 (47 mm)

² Item no. 346013 (43 mm)



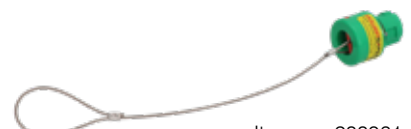
¹ Item no. 345981



Available on request:
Right-angled connector
(90° angle) for plug and
coupling without Rotalock
Cable cross section
max. 240 mm² / 800 A

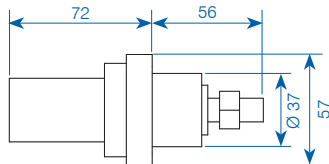


Item no. 288926

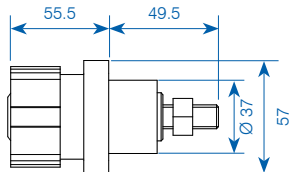


Item no. 288931

Plug-in connector



Built-in socket with Rotalock



Plug-in connector, Screw connection

Thread		M12	M12	Protective cap IP67
Amperes		max. 500A	max. 800A	
		Item no.	Item no.	Item no.
PE	Yellow-green	293909	294821	285518
N	Blue	281742	303801	346011
L1	Brown	293906	294820	285514
L2	Black	281740	290713	285515
L3	Grey	293908	294819	285516

³ 45° adapter kit incl. screws for mounting

Built-in socket with Rotalock, Screw connection

Thread		M12	M12	Protective cap IP67
Amperes		max. 500A	max. 800A	
		Item no.	Item no.	Item no.
PE	Yellow-green	288920	346005	285000
N	Blue	288919	346006	285003
L1	Brown	288916	346007	284999
L2	Black	288917	346008	285001
L3	Grey	288918	346010	285002

³ 45° adapter kit incl. screws for mounting



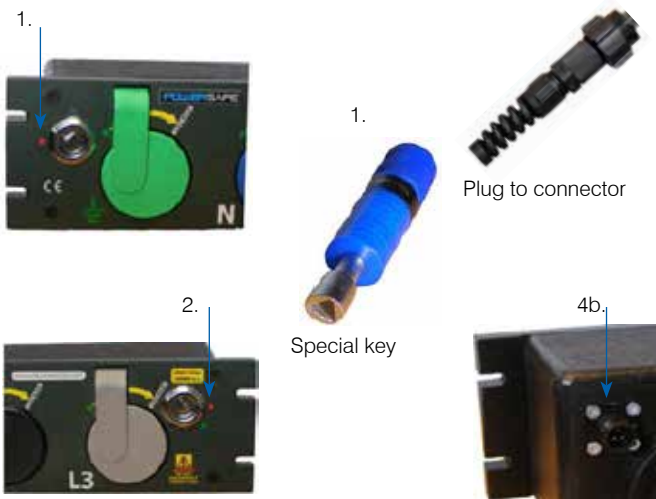
³ Item no. 346012



The PowerSAFE Box is a connection unit for connecting to a generator or the mains. The sequence of connecting and disconnecting is predetermined to ensure the safety circuits (PE+N) are the first to be connected and the last to be disconnected. The coded connections also prevent the possibility of incorrect contacts.

Functional description

1. The cover of the earth connection is opened by rotating it clockwise using the special key provided. Insert the PE high current plug to the end stop and then rotate it clockwise (lock).
2. After inserting the earth conductor properly, the protective cover of the neutral conductor opens – also insert the neutral conductor to the end stop and then rotate it clockwise.
3. Connect all L1 to L3 phase conductors to the switchbox in the same way – comply with correct sequence! Then the L3 phase conductor contact must also be locked with the special key in the clockwise direction. L3 is now also locked and unwanted disconnection is prevented.
4. This process triggers two processes:
 - a) It closes the L3 connection to prevent accidental interruptions under load and also prevents access to the device..
 - b) The microswitch (toggle function) is also activated and can therefore switch the switchbox on or off via an external contactor. (Leading or lagging) The load can be regulated in a controlled manner by connecting this switch to the power distribution.
5. The removing and unplugging of the individual conductors is carried out in reverse order and procedure: Open the lock at L3 using the special key L3 and undo all connections beginning with L3.
6. Important: All protective covers close automatically after removing the plug. (touch protection).

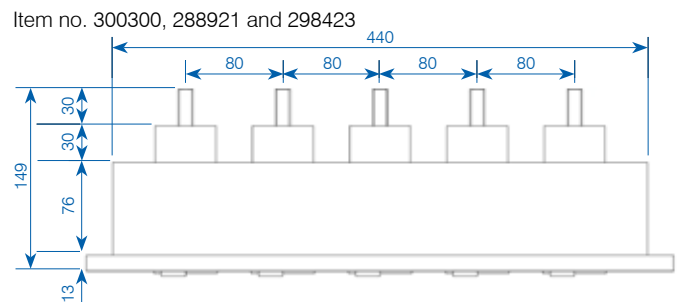
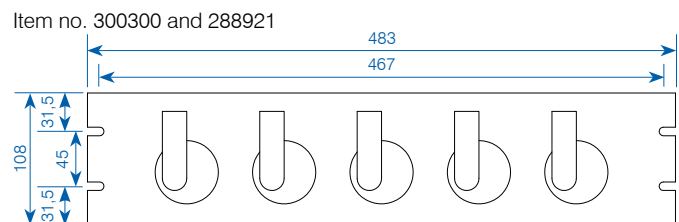
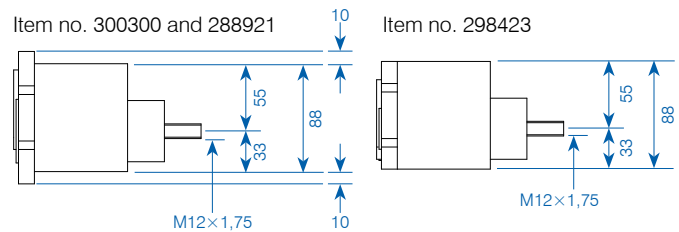


Dimensions art. no. 300300 and 288921:

Version for installation in housing / wall 108×483×149 mm (H×W×D)

Dimensions item no. 298423:

Rack installation version 88×483×149 mm (H×W×D)



In any case, it is impossible for the conductors to be connected or disconnected to the unit in the wrong order or individually by mistake!

Item no.	Description
288921	Powersafe Panel Box up to 800 A 3 LNPE 108×483×149 mm (H×W×D), installation wall / housing 5-way unit Built-in plug
Item no.	Description
300768	Powersafe Panel Box up to 800 A 3 LPE 108×483×149 mm (H×W×D), installation wall / housing 4-way unit built-in sockets
300300	Powersafe Panel Box up to 800 A 3 LNPE 108×483×149 mm (H×W×D), installation wall / housing 5-way unit built-in sockets
298423	Powersafe Panel Box up to 800 A 3 LNPE 2 U 88×483×149 mm (H×W×D), installation in rack 5-way unit built-in sockets

Application cases based on wall mounted distributors / mobile distributors / energy columns



Wall mounted distributor



Wall mounted distributor



Wall mounted distributor



Mobile distributors



Energy columns

Application cases based on cable reels / wall mounted distributors / transformers / unterfloor distributors



Cable reel



Cable reel



Mobile distributors



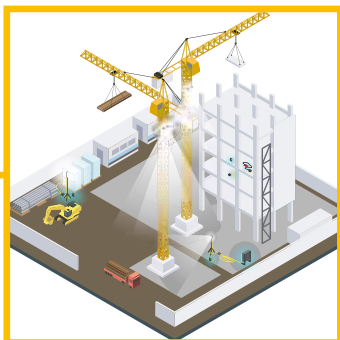
Transformer



Unterfloor distributors

WE ARE **EXPERTS** IN YOUR FIELD

Plug connectors



Construction industry



Industrial sector

THE GIFAS WORLD.

All products for your sector at a glance.

More on www.gifas.de/en/gifas-world