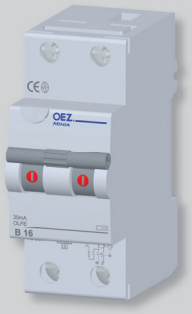
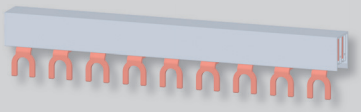
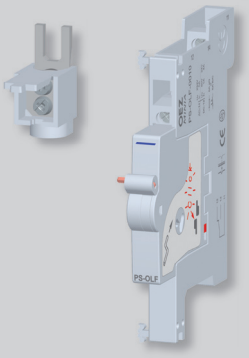
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION OLFE (6 kA)







- **The device is a combination of residual current circuit breaker and circuit breaker**
- For building, housing and similar installations up to 40 A, 230 V a.c.
- For protection:
  - – against dangerous contact with live parts ($I_{\Delta n} \leq 30$ mA)
  - – against dangerous contact with dead parts
  - – against fire
  - – against overload
  - – against short circuit (breaking capacity $I_{cn} = 6$ kA)
- They react to sine-wave residual current (type AC)
- Tripping characteristics B, C according to EN 60898
- Possibility of additional mounting of auxiliary switches PS-OLF-0010 on the right side of the device

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Residual current circuit breakers with overcurrent protection

$I_{\Delta n}$ [mA]	I_n [A]	Characteristic B Type	Characteristic B Product code	Characteristic C Type	Characteristic C Product code	Number of modules	Weight [kg]	Package [pcs]
30	6	**OLFE-6B-N1-030AC**	34829	**OLFE-6C-N1-030AC**	34836	2	0.25	1
	10	**OLFE-10B-N1-030AC**	34830	**OLFE-10C-N1-030AC**	34837	2	0.25	1
	16	**OLFE-16B-N1-030AC**	34831	**OLFE-16C-N1-030AC**	34838	2	0.25	1
	20	**OLFE-20B-N1-030AC**	34832	**OLFE-20C-N1-030AC**	34839	2	0.25	1
	25	**OLFE-25B-N1-030AC**	34833	**OLFE-25C-N1-030AC**	34840	2	0.25	1
	32	**OLFE-32B-N1-030AC**	34834	**OLFE-32C-N1-030AC**	34841	2	0.25	1
	40	**OLFE-40B-N1-030AC**	34835	**OLFE-40C-N1-030AC**	34842	2	0.25	1

Accessories to OLFE

Auxiliary switch	**PS-OLF-0010**	page C15
Busbar	**G2L-1000-16**	page D64
Connecting adapters	**AS-25-G, AS-50-S-AL**	page D69

Specification

Type		**OLFE**
Standards		EN 61009-1
Approval marks		CE
Number of poles		2
Tripping characteristics		B, C
Type		AC
Rated current	I_n	6 ÷ 40 A
Rated residual current	$I_{\Delta n}$	30 mA
Rated operating voltage	U_e	230 V a.c.
Min. operating voltage [1]	U_{min}	100 V a.c.
Max. operating voltage	U_{max}	255 V a.c.
Rated frequency	f_n	40 ÷ 60 Hz
Surge resistance (8/20 µs)		250 A
Rated short-circuit breaking capacity	I_{cn}	6 kA
Rated residual making and breaking capacity	$I_{\Delta m}$	7.5 kA
Rated pulse withstand voltage (1.2/50 µs)	U_{imp}	6 kV
Mechanical endurance		20 000 operating cycles
Electrical endurance		10 000 operating cycles
Energy limitation class		3
Degree of protection		IP20
Mounting on "U" rail according to EN 60715 - type		TH 35
Connection		
Conductor - rigid (solid, stranded)		1 ÷ 25 mm² (upper terminal)
		1 ÷ 35 mm² (lower terminal)
Conductor - flexible		1 ÷ 16 mm² (upper terminal)
		1 ÷ 25 mm² (lower terminal)
Torque		3 Nm (upper terminal)
		4 Nm (lower terminal)
Opposite		yes
Operating conditions		
Ambient temperature		-5 °C ÷ 40 °C
Working position		arbitrary
Seismic immunity		3 g / 8 ÷ 50 Hz

[1] For preserving the function of the test push-button

RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION OLFE (6 kA)

Internal impedance Z and powers loss P

I_n [A]	Z [1] [mΩ/pole]	P [1] [W/pole]
6	53	1.9
10	16.5	1.6
16	9.8	2.5
20	7.1	2.8
25	5.6	3.5
32	4.7	4.8
40	3.6	5.8

[1] Mean values

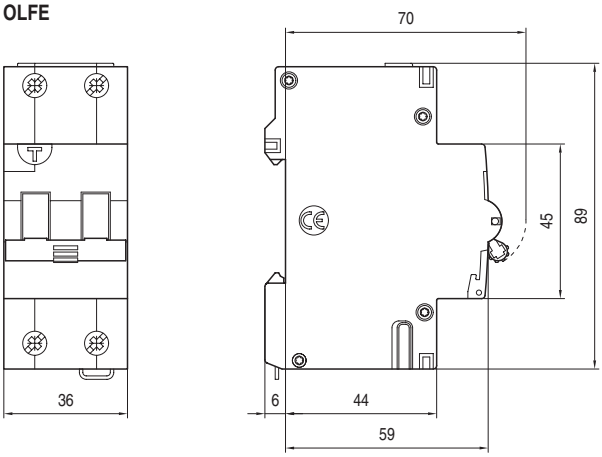
Correction of rated currents

I_n [A]	Correction of rated currents for ambient temperature –5 °C up to + 40 °C [A] [2]					
	-5 °C	0 °C	10 °C	20 °C	30 °C	40 °C
6	6.6	6.5	6.3	6.2	6.0	5.8
10	12.5	12.1	11.4	10.7	10.0	9.3
16	19.1	18.6	17.8	16.9	16.0	15.1
20	23.9	23.3	22.2	21.1	20.0	18.9
25	29.8	29.1	27.8	26.4	25.0	23.6
32	38.2	37.3	35.5	33.8	32.0	30.2
40	47.7	46.6	44.4	42.2	40.0	37.8

[2] Reference temperature: 30 °C

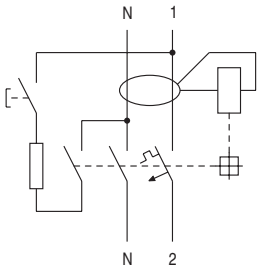
Dimensions

OLFE



Diagram

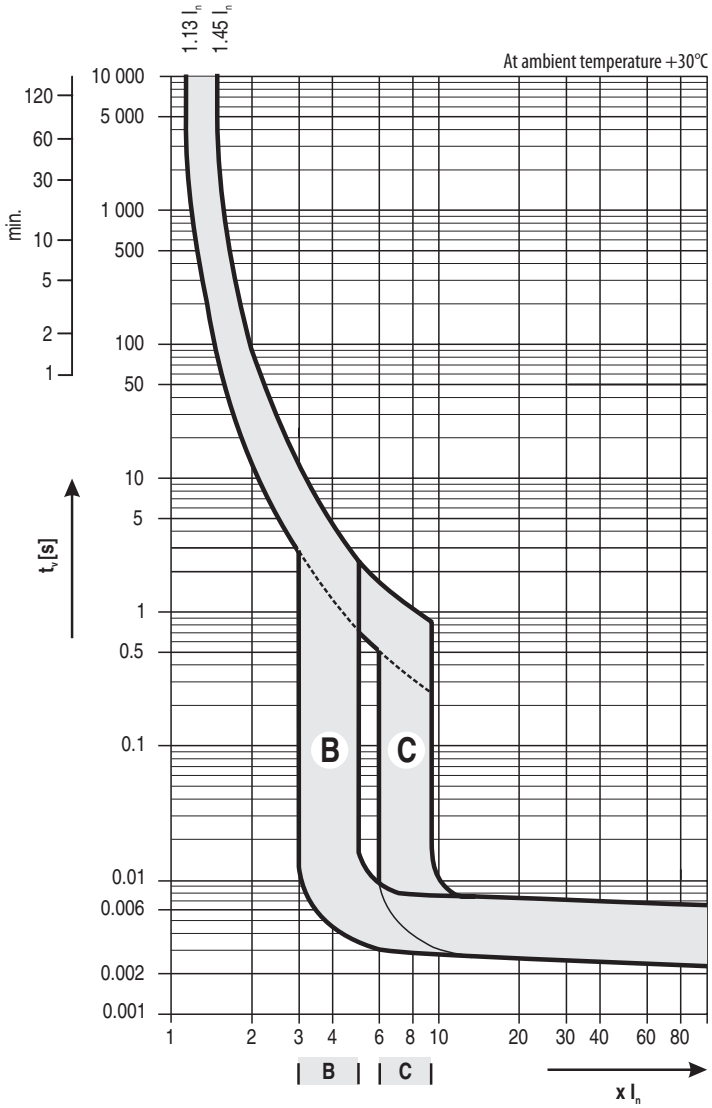
OLFE



RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION OLFE (6 kA)

Characteristics

- **Characteristic B**: for protection of electrical circuits with equipment which does not cause current surges (lighting and socket circuits etc.).
  The short-circuit release is set to (3 ÷ 5) I_n
- **Characteristic C**: for protection of electrical circuits with equipment which causes current surges (bulb lamp groups, motors etc.).
  The short-circuit release is set to (6 ÷ 9) I_n



Tripping characteristics of circuit breakers according to EN 60898

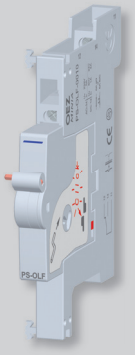
Thermal release	Tripping characteristic type B, C
Conventional non-tripping current I_{nt} for $t \geq 1$ h	$I_{nt} = 1.13\ I_n$
Conventional tripping current I_t for $t < 1$ h	$I_t = 1.45\ I_n$
Current I_3 for $1\ s < t < 60\ s$ (for $I_n \leq 32$ A) $1\ s < t < 120\ s$ (for $I_n > 32$ A)	$I_3 = 2.55\ I_n$

t - break time of the circuit breaker

Electromagnetic release	Tripping characteristic type B	C
Current I_4 for $0.1\ s < t < 45\ s$ (for $I_n \leq 32$ A) $0.1\ s < t < 90\ s$ (for $I_n > 32$ A)	$I_4 = 3\ I_n$	
$0.1\ s < t < 15\ s$ (for $I_n \leq 32$ A) $0.1\ s < t < 30\ s$ (for $I_n > 32$ A)		$I_4 = 5\ I_n$
Current I_5 for $t < 0.1$ s	$I_5 = 5\ I_n$	$I_5 = 10\ I_n$

t - break time of the circuit breaker

AUXILIARY SWITCHES



Auxiliary switch for residual current circuit breakers with overcurrent protection

- Accessories to OLFI and OLFE
- Installation: : on the right side of the residual current circuit breaker with overload protection
- For signalling the position of contacts of residual current circuit breakers with overload protection

Type	Product code	Arrangement of contacts [1]	Number of modules	Weight [kg]	Package [pcs]
PS-OLF-0010	34843	001	0.5	0.07	1

[1] Each digit indicates successively the number of make, break and break-make contacts

Auxiliary switch for residual current circuit breakers

- Accessories to OFI and OFE
- Installation: on the right side of the residual current circuit breaker
- For signalling the position of contacts of residual current circuit breakers

Accessories to	Type	Product code	Arrangement of contacts [1]	Number of modules	Weight [kg]	Package [pcs]
OFI, OFE up to 80 A	**PS-OF-1100**	35309	11	0.5	0.07	1
OFI 100, 125 A	**PS-OF125-1100**	36840	11	0.5	0.07	1

[1] Each digit indicates successively the number of make and break contacts

Specification

Type			**PS-OLF-0010**	**PS-OF-1100**	**PS-OF125-1100**
Standards			EN 62019 EN 60947-5-1	EN 62019	EN 62019 EN 60947-5-1
Approval marks					
Arrangement of contacts [1]			001	11	11
Rated operating voltage / current	U_e/I_e	AC-12	-	230 V a.c. / 6 A	230 V a.c. / 5 A
		AC-14	230 V a.c. / 5 A	230 V a.c. / 3,6 A	-
		DC-12	220 V d.c. / 0,5 A , 24 V d.c. / 4 A	220 V d.c. / 1 A	220 V d.c. / 0,5 A
Min. voltage / current			24 V a.c. / 10 mA	24 V a.c. / 50 mA	24 V a.c. / 50 mA
Short-circuit protection			MCB 6 A, char. B or C [2]	MCB 6 A, char. B or C [2]	MCB 6 A, char. B or C [2]
			fuse 6 A gG	fuse 6 A gG	fuse 6 A gG
Electrical endurance			10 000 operating cycles	10 000 operating cycles	10 000 operating cycles
Degree of protection			IP20	IP20	IP20
Mounting			on the right side of the device	on the right side of the device	on the right side of the device
Connection					
Conductor - rigid (solid, stranded)			1 ÷ 2.5 mm², 2x 1.5 mm²	0.75 ÷ 2.5 mm²	0.75 ÷ 2.5 mm²
Conductor - flexible			0.75 ÷ 2.5 mm²	0.75 ÷ 2.5 mm²	0.75 ÷ 2.5 mm²
Torque			0.5 Nm	0.8 Nm	0.8 Nm
Opposite			yes	yes	yes
Operating conditions					
Ambient temperature			-25 °C ÷ 40 °C	-25 °C ÷ 45 °C	-25 °C ÷ 45 °C
Working position			arbitrary	arbitrary	arbitrary

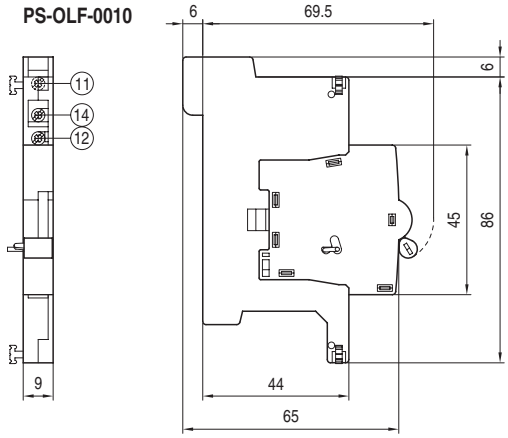
[1] Each digit indicates successively the number of make, break and break-make contacts

[2] MCB - Miniature Circuit Breaker

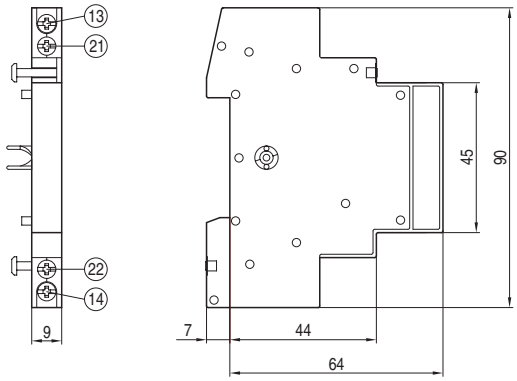
AUXILIARY SWITCHES

Dimensions

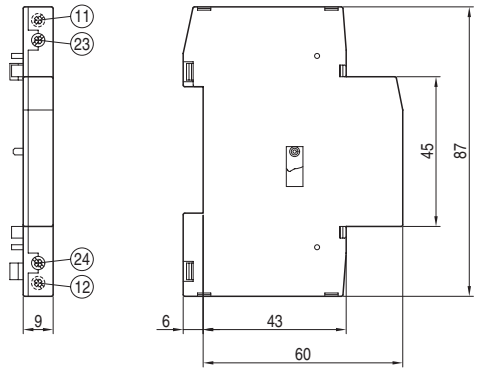
PS-OLF-0010



PS-OF-1100

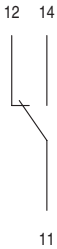


PS-OF125-1100

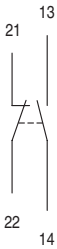


Diagram

PS-OLF-0010



PS-OF-1100



PS-OF125-1100

BASIC TERMS AND SYMBOLS

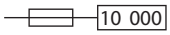
- **Rated residual operating current $I_{\Delta n}$** is the value of residual current $I_{\Delta n}$ specified by the manufacturer, at which the residual current circuit breaker must switch out under specified conditions. Alternating residual current must by cut off by the residual current circuit breaker within (0.5 ÷ 1) $I_{\Delta n}$

- **Rated current I_n** is the value of current specified by the manufacturer, which can be transferred by the residual current circuit breaker continuously. So the current I_n can pass through the contacts for an unlimited time. Therefore it is, for instance, possible to use a residual current circuit breaker with I_n=25 A in the circuit with max. current up to 25 A. For protection against overload of the residual current circuit breakers OFI, OFE, it is recommended to use the circuit breakers LSN, LST, LSE with rated current $I_{n\ MCB} \leq I_{n\ RCCB}$

- **Rated operating voltage U_e** is the voltage the residual current circuit breaker is to be connected to and which properties are related to. The connected voltage has no effect on the device function but on the function of the test circuit and isolation properties.

- **Rated frequency f_n** is the frequency the residual current circuit breaker is designed for and at which it works correctly under stated conditions. Majority of residual current circuit breakers are designed for f_n = 50 to 60 Hz. As the residual current circuit breaker function is based on the induction principle, the residual current behaviour and frequency show an effect upon tripping. When using a device designed for 50/60 Hz in a network with a different frequency, the user must count on a change of the tripping threshold i.e. a change of $I_{\Delta n}$

- **Conditional short-circuit current I_{nc} – short-circuit strength.** The function and design principle does not allow to use the residual current circuit breaker for protection against short circuit. For circuit protection it is necessary to use a circuit breaker or a fuse. These elements cut the short-circuited circuit safely off. The residual current circuit breaker must only withstand the through-going short-circuit current. The amplitude of the maximum through current is defined as rated conditional short-circuit current I_{nc}. The short-circuit strength is then expressed by the current I_{nc}. For example, on the rating plate I_{nc} = 10 kA is expressed by the following symbol:



- **Ambient temperature T** for the residual current circuit breakers is (-5÷+40) °C according to almost all international standards. Some residual current circuit breakers work in an extended range (-25÷+40) °C. This possibility is identified by the following symbol on the rating plate:

- **Residual current circuit breaker – type AC** – reacts to sine-wave residual current – it is used in conventional AC networks

- **Residual current circuit breaker – type A** – reacts to sine-wave alternating and pulsating direct residual currents - it is used in conventional AC networks and the networks with phase power regulation etc.

- **Residual current circuit breaker – type G** – special residual current circuit breaker reducing the number of undesirable cut-offs. It is mainly installed before the devices causing short-time (up to 10 ms) stray currents.
  Identification: G
  Surge resistance: 3 kA (8/20 µs)
  Release delay: 10 ms

- **Residual current circuit breaker – type S** – special residual current circuit breaker, which is mainly intended for selective switching of residual current circuit breakers and reduction of undesirable cut-offs. It is installed before the devices causing short-time (up to 40 ms) stray currents.
  Identification: S
  Surge resistance: 5 kA (8/20 µs)
  Release delay: 40 ms

Selective (discriminating) switching means that if the residual current circuit breakers are connected in series, only the device in which circuit a failure occurs will cut off the current. More specifically, only the device in which the tripping residual current appears due to a failure in the protected circuit will turn off the current. The advantage consists in maintaining the power supply in the other circuits not affected by the failure.

Such function of the protected circuit is achieved by connection of the selective residual current circuit breaker *(see Fig. 1)* before the standard or G type residual current circuit breaker, with the following ratio of rated residual current:

$$I_{\Delta n\,S} \geq 3 \times I_{\Delta n\,-,G}$$

$I_{\Delta nS}$ Rated residual operating current of the selective residual current circuit breaker

$I_{\Delta n\,-,G}$ Rated residual operating current of standard or G type residual current circuit breaker

The main reason of selective disconnecting of circuits is higher time delay of the selective residual current circuit breakers in tripping (compared to standard or G type ones).

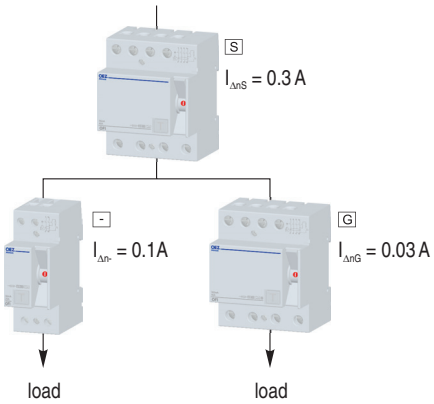
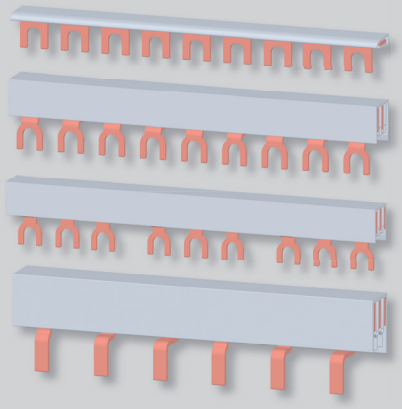


Fig. 1: Simplifi ed example of selective connection of residual current circuit breakers

- **Residual current circuit breaker with overcurrent protection** - the device is a combination of residual current circuit breaker and circuit breaker with 2-module width - it saves the space in the switchboard compared to conventional connection of two separate devices (3 modules). This eliminates the problem of primary protection and interconnection. The disadvantage of such a design compared to conventional one is that it is not possible to identify whether the tripping was actuated by the residual current circuit breaker or by the circuit breaker.

INTERCONNECTING BUSBARS

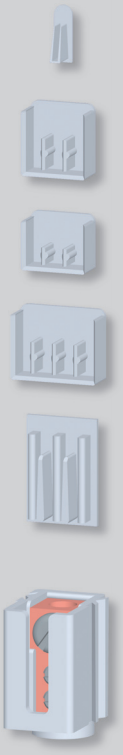


Interconnecting busbars

- For interconnection of 1 to 4-pole circuit breakers, tumbler switches, residual current circuit breakers, lightning current arresters and surge voltage arresters
- For interconnection of a series of single-phase or three-phase circuit breakers and tumbler switches, on which an auxiliary switch is mounted switch
- Busbars G1L-.., G2L-.., G3L-.., G4L-.. with forks into the head part of the terminal,
  Busbars S1L-.., S2L-.., S3L-.., S4L-.. with pins into the clamp part of the terminal

Busbar shape	Number of poles	Output spacing [mm]	Number of outlets	Cross-section [mm²]	Type	Product code	End cap	Weight [kg]	Package [pcs]
fork	1	17.8	2	10	**G1L-30-10**	37352	- [1]	0.008	50
				16	**G1L-30-16**	37356	- [1]	0.012	50
			6	10	**G1L-106-10**	37353	- [1]	0.023	50
				16	**G1L-106-16**	37357	- [1]	0.037	50
			12	10	**G1L-210-10**	37354	- [1]	0.045	50
				16	**G1L-210-16**	37358	- [1]	0.073	50
			57	12	**G1L-1000-12**	37355	EKC-1	0.227	50
				20	**G1L-1000-20**	37359	-	0.367	50
		27 [2]	37	24	**G1L-27-1000-24**	37360	-	0.307	50
	2	17.8	2x 28	16	**G2L-1000-16**	37361	EKC-2+3	0.477	20
	3	17.8	3x 2	10	**G3L-106-10**	37362	- [1]	0.046	25
				16	**G3L-106-16**	37366	- [1]	0.074	25
			3x 3	10	**G3L-160-10**	37363	- [1]	0.069	25
				16	**G3L-160-16**	37367	- [1]	0.111	25
			3x 4	10	**G3L-210-10**	37364	- [1]	0.091	25
				16	**G3L-210-16**	37368	- [1]	0.147	25
			3x 19	10	**G3L-1000-10C**	37365	EKC-3	0.457	20
				16	**G3L-1000-16C**	37369	EKC-2+3	0.737	20
		17.8 + 9	3x 16	16	**G3L+9-1000-16**	37370	EKC-2+3	0.614	20
	4	17.8	4x 14	16	**G4L-1000-16**	37371	EKC-4	0.983	15
			2x 27	16	**G3L+N-1000-16**	37372	EKC-4	0.983	15
pin	1	17.8	12	16	**S1L-210-16**	37374	- [1]	0.047	50
			57	10	**S1L-1000-10**	37373	EKC-1	0.204	50
				16	**S1L-1000-16**	37375	EKC-1	0.302	50
		27	38	16	**S1L-27-1000-16**	37376	EKC-1	0.201	50
			37	25	**S1L-27-1000-25**	37377	-	0.315	30
	2	17.8	2x 28	16	**S2L-1000-16**	37378	EKC-2+3	0.477	20
	3	17.8	3x 19	16	**S3L-1000-16**	37379	EKC-2+3	0.737	20
		27	3x 12	16	**S3L-27-1000-16**	37380	EKC-2+3	0.537	20
				25	**S3L-27-1000-25**	37381	EKC-3-36	0.995	10
	4	27	4x 9	25	**S4L-27-1000-25**	37382	EKC-3-36	1.327	5

[1] The busbar is manufactured as enclosed one
[2] For single-pole devices with auxiliary switch



Accessories

End caps

- For covering the ends of connecting busbars

Type	Product code	Description	Weight [kg]	Package [pcs]
EKC-1	37383	for 1-pole rails cross-section 10, 12, 16 mm²	0.0005	10
EKC-2+3	37384	for 2-pole rails and for 3-pole rails cross-section 16 mm²	0.001	10
EKC-3	37385	for 3-pole rails cross-section 10 mm²	0.001	10
EKC-3-36	37386	for 3-pole rails and for 4-pole rails cross-section 25 mm²	0.002	10
EKC-4	37387	for 4-pole rails cross-section 16 mm²	0.002	10

Power supply unit

- It enables power supply of interconnecting busbars by conductors of cross section up to 35 mm²
- The blocks can be assembled in series to create a multi-pole connection unit.
- Degree of protection IP20

Type	Product code	Weight [kg]	Package [pcs]
ES-35-GS	37388	0.035	10

INTERCONNECTING BUSBARS

Specification

Type		G.., S..
Rated operating voltage	U_e	415 V a.c.
Max. operating voltage	U_{max}	500 V a.c.
Loading current		63 ÷ 180 A
Cross-section		10 ÷ 25 mm²
Short-circuit strength with primary fuse 250 A gG		50 kA
Overvoltage category		III
Busbar material		E-Cu-F25
Insulation material		PC/ABS-Blend

Max. loading current per phase

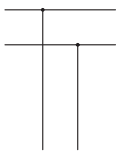
	Rail cross-section					
	10 mm²	12 mm²	16 mm²	20 mm²	24 mm²	25 mm²
Power supply from the rail edge	63 A	65 A	80 A	90 A	100 A	100 A
Power supply from the rail centre [1)]	100 A	110 A	130 A	150 A	170 A	180 A

[1)] Max. loading current in one direction must not be higher than max. loading current at power supply from the rail edge

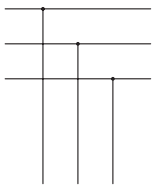
Diagram

G1L-.., S1L-..

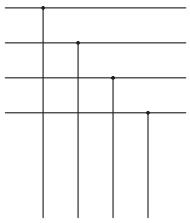
G2L-.., S2L-..



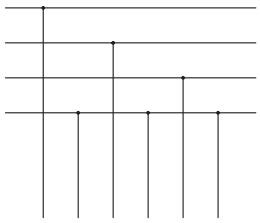
G3L-.., S3L-..



G4L-.., S4L-..



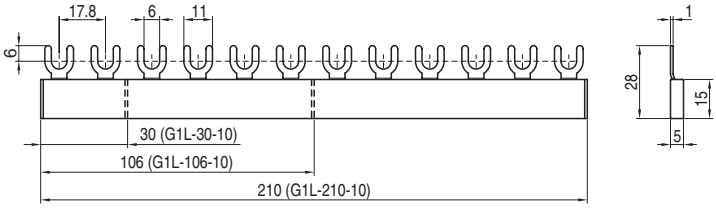
G3L+N-..



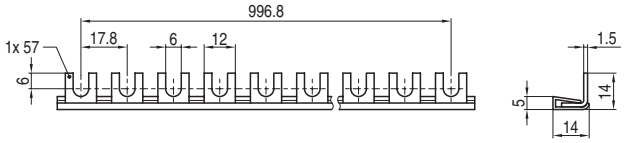
INTERCONNECTING BUSBARS

Dimensions

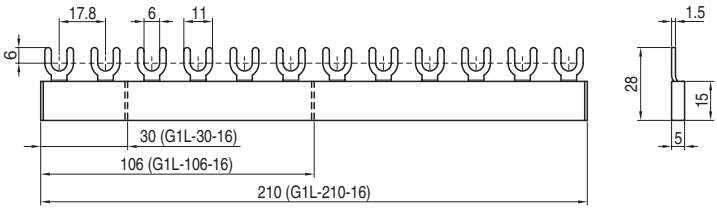
G1L-30-10, G1L-106-10, G1L-210-10



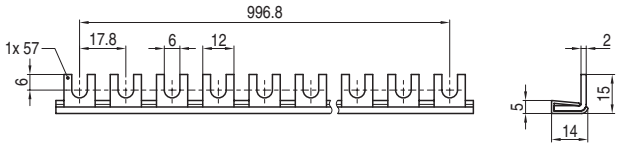
G1L-1000-12



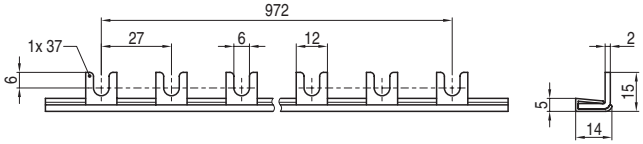
G1L-30-16, G1L-106-16, G1L-210-16



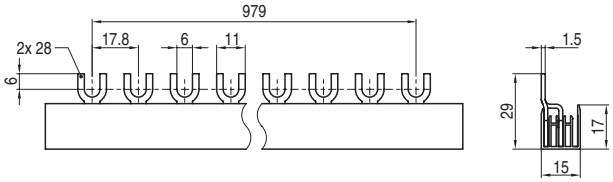
G1L-1000-20



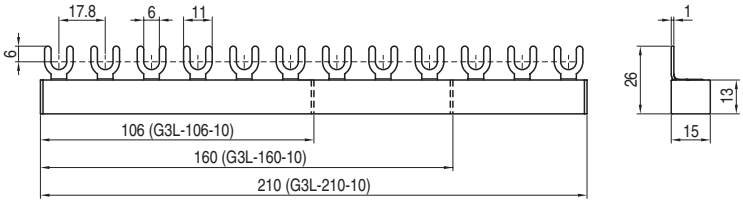
G-1L-27-1000/24



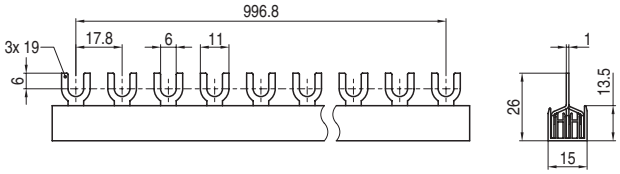
G2L-1000-16



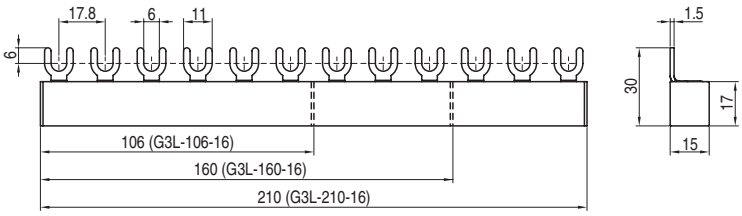
G3L-106-10, G3L-160-10, G3L-210-10



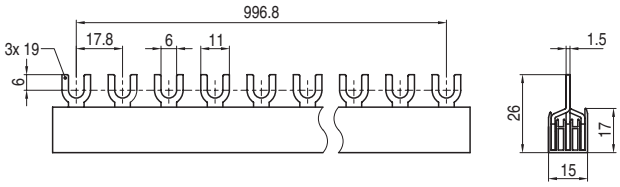
G3L-1000-10C



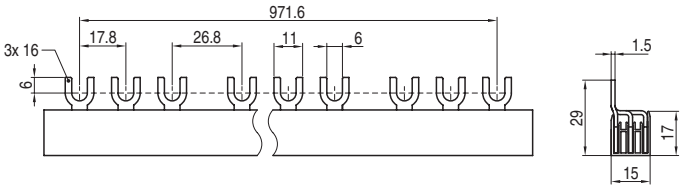
G3L-106-16, G3L-160-16, G3L-210-16



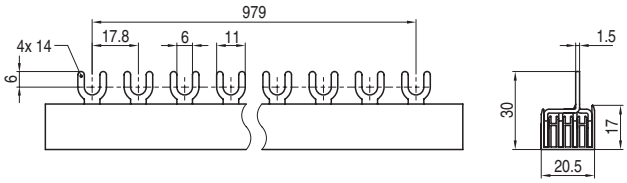
G-3L-1000/16C



G3L+9-1000-16



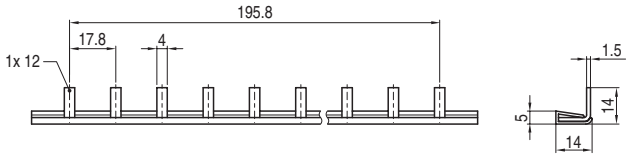
G4L-1000-16, G3L+N-1000-16



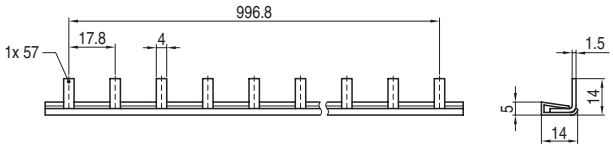
INTERCONNECTING BUSBARS

Dimensions

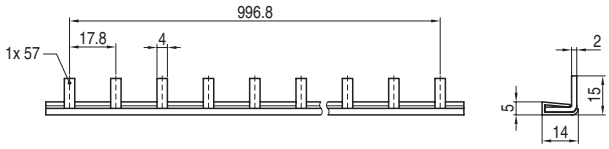
S1L-210-16



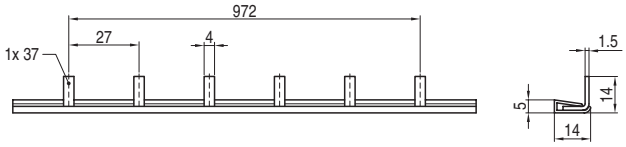
S1L-1000-10



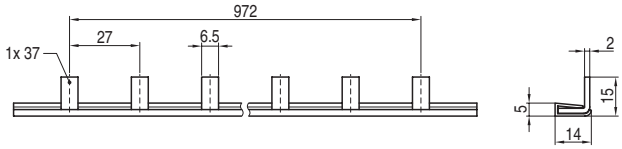
S1L-1000-16



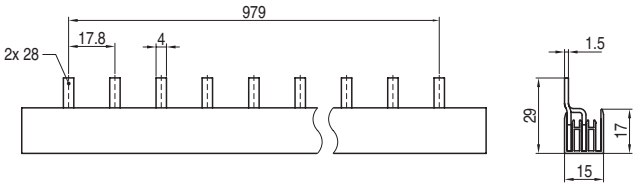
S1L-27-1000-16



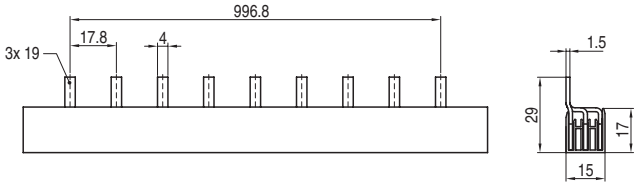
S1L-27-1000-25



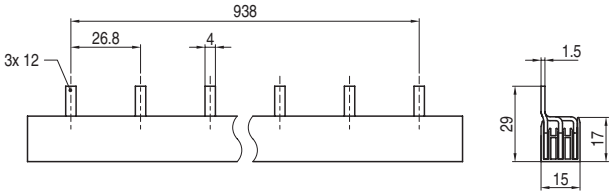
S2L-1000-16



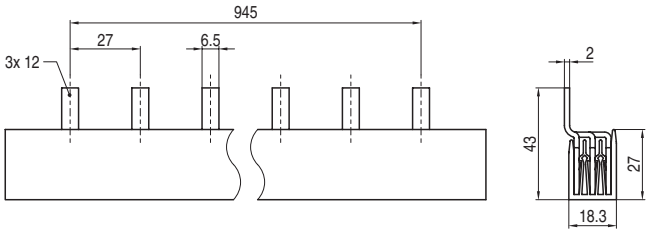
S3L-1000-16



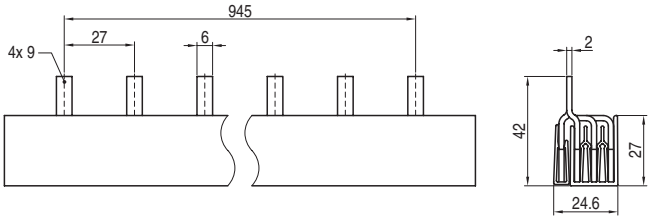
S3L-27-1000-16



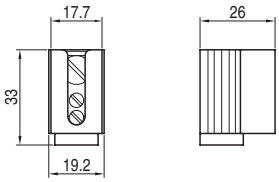
S3L-27-1000-25



S4L-27-1000-25



ES-35-GS

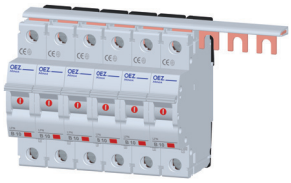


INTERCONNECTING BUSBARS

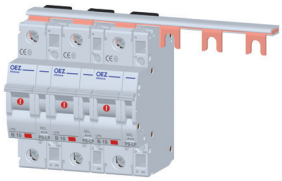
Examples of use of interconnecting busbars

INTERCONNECTING BUSBARS WITH FORKS

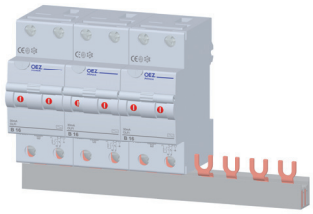
1-pole interconnecting busbars
For interconnection of 1-pole devices in the head part of the terminal
Use: LPE, LPN, SJB, SVL, SVM, APN



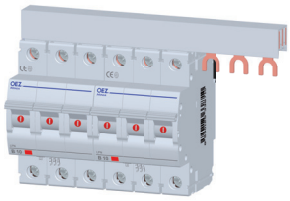
1-pole interconnecting busbars with spacing 27 mm
For interconnection of 1-pole devices with auxiliary switch in the head part of the terminal
Use: LPE, LPN, APN



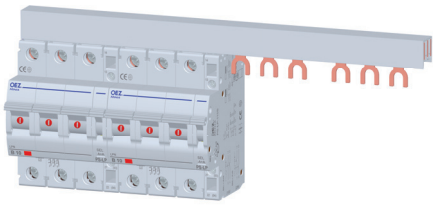
2-pole interconnecting busbars
For interconnection of 2-pole devices in the head part of the terminal
Use: LSN, LSE, SVL, SJL, ASN



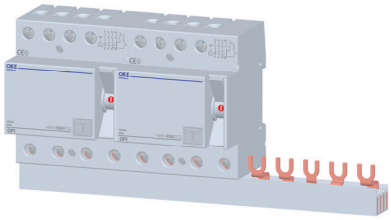
3-pole interconnecting busbars
For interconnection of 3-pole devices in the head part of the terminal
Use: LPE, LPN, SJB, SVL, SVM, APN



3-pole interconnecting busbars with a gap on the auxiliary switch
For interconnection of 3-pole devices with auxiliary switch in the head part of the terminal
Use: LPE, LPN, APN

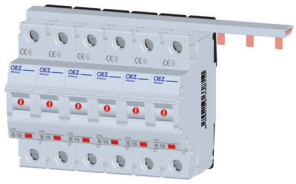


4-pole interconnecting busbars
For interconnection of 4-pole devices in the head part of the terminal
Use: LPE, LPN, OFI, OFE, APN

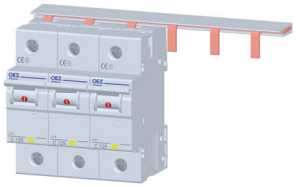


INTERCONNECTING BUSBARS WITH PINS

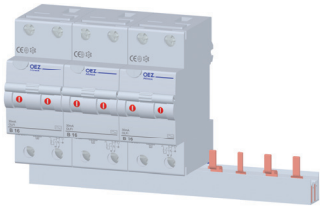
1-pole interconnecting busbars
For interconnection of 1-pole devices in clamp part of the terminal
Use: LPE, LPN, SJB, SVL, SVM, APN



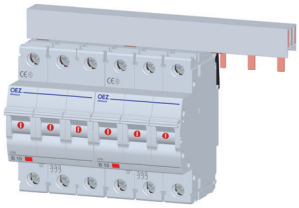
1-pole interconnecting busbars with spacing 27 mm
For interconnection of 1-pole circuit breakers LST in clamp part of the terminal or for interconnection of 1-pole devices with auxiliary switch in clamp part of the terminal
Use: LPE, LPN, LST, APN, AST



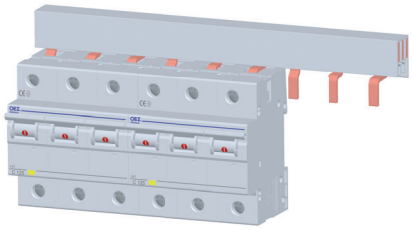
2-pole interconnecting busbars
For interconnection of 2-pole devices in clamp part of the terminal
Use: LPE, LPN, OLFE, OLFI, OFE, OFI, APN



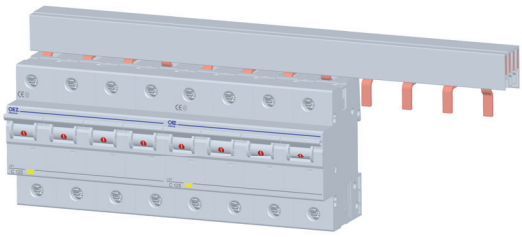
3-pole interconnecting busbars
For interconnection of 3-pole devices in clamp part of the terminal
Use: LPE, LPN, APN



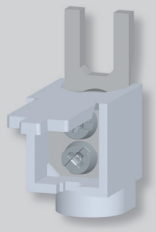
3-pole interconnecting busbars with spacing 27 mm
For interconnection of 3-pole circuit breakers LST in clamp part of the terminal or for interconnection of 1-pole devices with auxiliary switch in clamp part of the terminal
Use: LPE, LPN, LST, APN, AST



4-pole interconnecting busbars with spacing 27 mm
For interconnection of 4-pole circuit breakers LST in clamp part of the terminal
Use: LST, AST



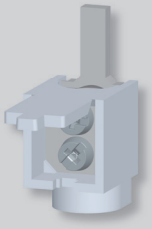
CONNECTING ADAPTERS



Connecting adapter up to 25 mm² with fork

- For connection of another conductor to the head part of the terminal of a circuit breaker, residual current circuit breaker, tumbler power switch etc.
- For example, the best solution is to connect a conductor for power supply of an electric meter in the clamp part of the circuit breaker terminal, and another conductor through the connecting adapter AS-25-G in the head part of the circuit breaker terminal
- Conductor cross-section: 6 ÷ 25 mm²

Type	Product code	Accessories	Weight [kg]	Package [pcs]
AS-25-G	37390	LPE, LPN, OLFI, OLFE, OFI, OFE, SJB, SVM, APN	0.013	30



Connecting adapter up to 25 mm² with pin

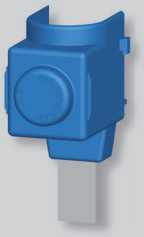
- Accessories to: OFI20, OFE20, SVL, SJL, RP1
- For connection of conductors to the clamp part of the terminal
- Conductor cross-section: 6 ÷ 25 mm²

Type	Product code	Accessories	Weight [kg]	Package [pcs]
AS-25-S	37389	OFI-..-2-...., OFE-..-2-...., RLP	0.014	30

Connecting adapter up to 50 mm²

- For connection of Al or Cu conductors
- Cross-section of Cu conductors: 2.5 ÷ 50 mm²
- Cross-section of Al conductors: 16 ÷ 50 mm²

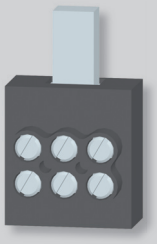
Type	Product code	Accessories	Weight [kg]	Package [pcs]
AS-50-S-AL	37391	LPE, LPN, LST, SJBplus, APN, AST	0.018	15



Connecting adapters up to 95 mm²

- For connection of Cu/Al conductors of cross section 35 ÷ 95 mm²
- With direct or outbowed terminal

Type	Product code		Accessories	Weight [kg]	Package [pcs]
CS-FH000-3NP95	13740	straight guidon – the package contains the set of 3 pieces	LST, SJBplus, SJB-NPE, AST	0.176	1
CS-FH000-1NP95	14378	straight guidon	LST, SJBplus, SJB-NPE, AST	0.06	1
CS-FH000-3NV95	13742	outbowed guidon – the package contains the set of 3 pieces	LST, SJBplus, SJB-NPE, AST	0.184	1



Connecting adapter 3x10 mm²

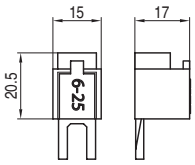
- For connection of 3 conductors / device pole of cross section 10 mm²

Type	Product code	Accessories	Weight [kg]	Package [pcs]
N3x10-FH000	14127	LST, SJB, SVM, AST	0.035	1

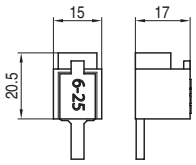
CONNECTING ADAPTERS

Dimensions

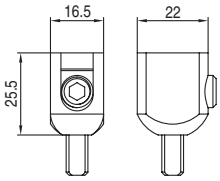
AS-25-G



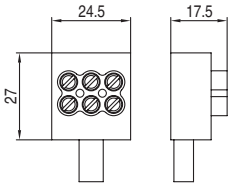
AS-25-S



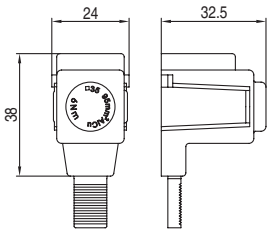
AS-50-S-AL



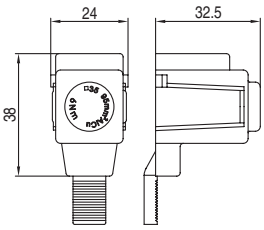
N3x10-FH000



CS-FH000-...NP95



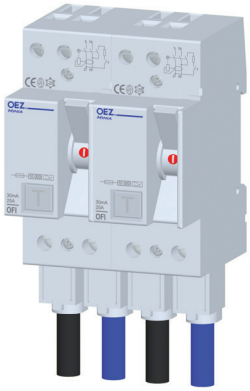
CS-FH000-3NV95



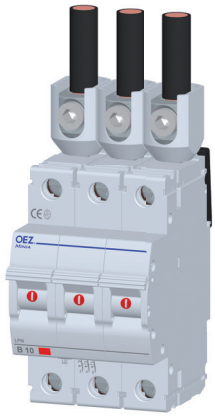
Examples of use of connecting adapters and blocks

AS-25-G
For connection of another conductor of cross section up to 25 mm² to the head part of the terminal
Use: LPE, LPN, OLFI, OLFE, OFI, OFE, SJB, SVM, APN

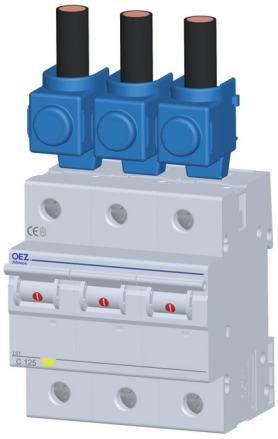
AS-25-S
For connection of conductors of cross section up to 25 mm² to the clamp part of the terminal
Use: OFI-..-2-.., OFE-..-2-.., RLP



AS-50-S-AL
For connection of Cu/Al conductors of cross section up to 50 mm² to the clamp part of the terminal
Use: LSN, LST, LSE, LFI, LFE, SJBplus, ASN, AST



CS-FH000-3NP95, CS-FH000-1NP95, CS-FH000-3NV95
For connection of Cu/Al conductors of cross section up to 95 mm² to the clamp part of the terminal
Use: LST, SJBplus, SJB-NPE, AST



N3x10-FH000
For connection of three conductors of cross section 10 mm² to the clamp part of one terminal
Use: LST, SJB, SVM, AST