

SUMMARY OF MODELS

B

Type	OPVP10	OPVP14	OPVP22	OPT22/OPT20	OPVF10
Rated operating current I_c / Rated current I_n	32 A / –	63 A / –	125 A / –	63 A	– / 30 A
Rated operating voltage U_c / Rated voltage U_n	AC 690 V / – DC 440 V / –	AC 690 V / – DC 440 V / –	AC 690 V / – DC 440 V / –	AC 1 500 V / – DC 1 500 V / –	– – / DC 1 000 V
Fuse-link size	10x38	14x51	22x58	22x127, 20x127	10x38
Utilization category of fuse-link	gG, aM, gR, aR	gG, aM, gR, aR	gG, aM, gR, aR	gR/gS, gR, aR	gR, gPV
Utilization category at AC 400 V	AC-21B	AC-21B	AC-21B	–	–
Utilization category at AC 1 500 V	–	–	–	AC-20B	–
Utilization category at DC 250 V	DC-21B	DC-21B	DC-21B	–	–
Utilization category at DC 1 000 V	–	–	–	DC-20B	–

Accessories					
 <p>Interconnecting busbars</p>	S1L-..., S2L-..., S3...	S3L-...	CS-OPV22-...	–	S1L-...
 <p>Terminal extensions</p>	AS-50-S...		3NP1123-1BD00	–	–
 <p>Adapter for busbar system with spacing 60 mm</p>	8US..		–	–	–
 <p>Remote signalling of fuse-link state</p>		MD-M3		–	–

Description

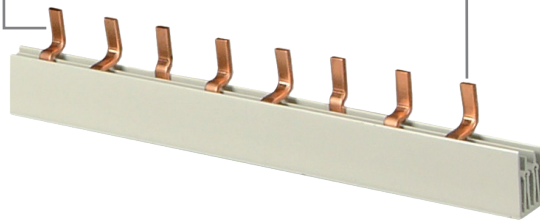
Outlet cover

- It enables isolation of unused outlets of interconnecting busbars.
- For covering five unused outlets.



Connection block

- 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.



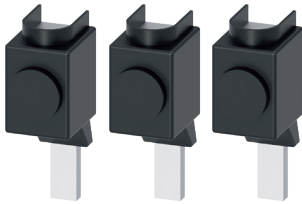
End caps

- For covering of interconnecting busbar ends.



Terminal extensions

- Accessory for fuse switch-disconnector OPVP22-3...
- For connection of Cu/Al conductor cross-section 35 ÷ 95 mm².
- Possibility of connecting two stranded conductors up to 25 mm².



Interconnecting busbar

- For interconnection of 1- to 3-pole fuse switch-disconnectors.

Adapter for busbar system

- Busbar spacing 60 mm.
- Busbar thickness 5 or 10 mm.
- Busbar width up to 12 mm.
- Cable outlet bottom.
- Max. current 63 A.



- Accessory for fuse switch-disconnectors OPVP10 and OPVP14

- For connection of Cu conductor.
- Cross-section of Cu conductor 6 ÷ 50 mm².



- Accessory for fuse switch-disconnector OPVP14

- For connection of Al/Cu conductor.
- Cross-section of Cu/Al conductor 2.5 ÷ 50 mm².



FUSE SWITCH-DISCONNECTORS OPVP

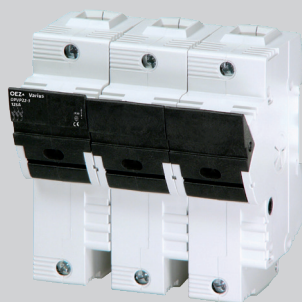
B



OPVP10-1



OPVP14-2



OPVP22-3

- Fuse switch-disconnectors are intended for cylindrical fuse-links.
- They allow safe switch off rated currents and overcurrents. They meet the conditions for safe disconnection.
- Inverse connection is permissible and it affects neither the technical parameters nor the safety of the operator.
- Fuse-link state can be indicated by means of the MD-M3 electronic signalling.
- Sealing option.
- Possibility of interconnection by means of interconnecting busbars.
- Possibility of using adapter for busbars with spacing 60 mm 8US1661-5FK02 for OPVP10 and OPVP14.
- The devices are designed as modular for 45 mm cut-out in the switchboard cover plate.
- Mounting on DIN rail according to EN 60715 (steel rail recommended).
- The supply connection from below is possible without limiting the electrical parameters (the device should be marked "ATTENTION, BOTTOM CONNECTION").

Fuse switch-disconnectors

I _e [A]	Number of poles	Type	Order code	Weight [kg]	Package [pcs]
32	1	OPVP10-1	OEZ:41013	0.063	12
	1+N	OPVP10-1N	OEZ:43686	0.133	6
	2	OPVP10-2	OEZ:41014	0.128	6
	3	OPVP10-3	OEZ:41015	0.193	4
	3+N	OPVP10-3N	OEZ:43687	0.271	3
63	1	OPVP14-1	OEZ:41024	0.097	6
	1+N	OPVP14-1N	OEZ:43691	0.218	3
	2	OPVP14-2	OEZ:41025	0.202	3
	3	OPVP14-3	OEZ:41026	0.304	2
	3+N	OPVP14-3N	OEZ:43692	0.427	1
125	1	OPVP22-1	OEZ:41035	0.158	6
	2	OPVP22-2	OEZ:41036	0.322	3
	3	OPVP22-3	OEZ:41037	0.486	2
	3+N	OPVP22-3N	OEZ:43697	0.675	1

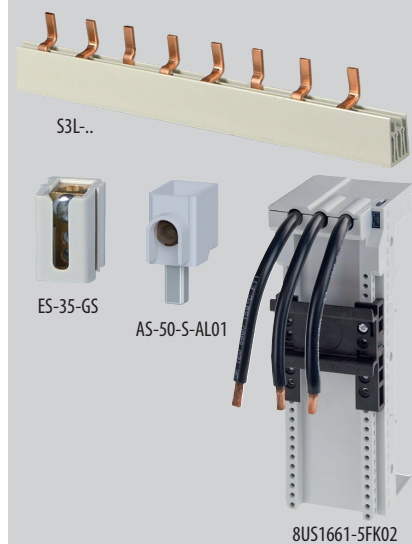
Fuse switch-disconnectors with local signalling

- By means of LED in each pole separately.
- LED is lighting in case of fuse-link remelting.

I _e [A]	Number of poles	Type	Order code	Weight [kg]	Package [pcs]
32	1	OPVP10-1-S	OEZ:43683	0.068	12
	2	OPVP10-2-S	OEZ:43684	0.137	6
	3	OPVP10-3-S	OEZ:43685	0.193	4
63	1	OPVP14-1-S	OEZ:43688	0.098	6
	2	OPVP14-2-S	OEZ:43689	0.203	3
	3	OPVP14-3-S	OEZ:43690	0.305	2
125	1	OPVP22-1-S	OEZ:43693	0.159	6
	2	OPVP22-2-S	OEZ:43694	0.323	3
	3	OPVP22-3-S	OEZ:43695	0.487	2

Accessories

Interconnecting busbars	S1L-., S2L-., S3L-., CS-..	page B7
Terminal extensions	AS-., CS-..	page B10
Adapters	OD-., 8US..	page B11
Electronic signalling of fuse state	MD-M3	page E30



Specifications

Type		OPVP10	OPVP14	OPVP22
Standards		IEC 60947-1 IEC 60947-3 EN 60947-1 EN 60947-3	IEC 60947-1 IEC 60947-3 EN 60947-1 EN 60947-3	IEC 60947-1 IEC 60947-3 EN 60947-1 EN 60947-3
Approval marks				
Rated operating current	I_n	32 A	63 A	125 A
Rated operating voltage	U_n	AC 690 V / DC 440 V	AC 690 V / DC 440 V	AC 690 V / DC 440 V
Utilization category ¹⁾		AC 400 V AC-21B AC 690 V AC-20B DC 100 V DC-21B DC 250 V DC-21B	AC-21B AC-21B DC-21B DC-21B ²⁾	AC-21B AC-21B DC-21B DC-21B
Rated thermal current with fuse-link	I_{th}	32 A	63 A	125 A
Rated thermal current with disconnecting link ZPV.. / cross-section of connected conductor	I_{th}	100 A / 25 mm ²	110 A / 35 mm ²	150 A / 50 mm ²
Rated frequency	f_n	50 ÷ 60 Hz	50 ÷ 60 Hz	50 ÷ 60 Hz
Rated insulation voltage	U_i	AC 800 V	AC 800 V	AC 800 V
Rated conditional short-circuit current with fuse-links PV (RMS)	I_{cc}	AC 500 V 100 kA AC 690 V 50 kA	100 kA 80 kA	100 kA 80 kA
Rated impulse withstand voltage	U_{imp}	6 kV	6 kV	6 kV
Fuse-link size	diameter x length	10x38	14x51	22x58
Max. power losses of the fuse-link	P_v	4.3 W	6.5 W	10.5 W
Power losses at I_n without fuse-link	P_z	4.5 W	5 W	7 W
Rated short-time withstand current	I_{cw} 1 s	1.6 kA	1.6 kA	2.5 kA
Overvoltage category / rated voltage		I(II ³⁾) / AC 690 V, II(III ³⁾) / AC 500 V, III / AC 400 V	I(II ³⁾) / AC 690 V, II(III ³⁾) / AC 500 V, III / AC 400 V	II(III ³⁾) / AC 690 V, III(IV ³⁾) / AC 500 V
Connection				
Connection cross-section		Cu / 0.75 ÷ 25 mm ² 2x (0.75 ÷ 10) stranded in the same size	Cu / 1.5 ÷ 35 mm ² -	Cu / 4 ÷ 50 mm ² -
Torque		2 ÷ 2.5 Nm	2.5 ÷ 3 Nm	3.5 ÷ 4 Nm
Local signalling				
LED signalling voltage range		AC/DC 110 ÷ 690 V	AC/DC 110 ÷ 690 V	AC/DC 110 ÷ 690 V
Indication of fuse-link remelting		red LED	red LED	red LED
Operating conditions				
Electrical endurance	operating cycles	300	300	200
Mechanical endurance	operating cycles	1 700	1 700	1 400
Rated duty		uninterrupted	uninterrupted	uninterrupted
Degree of protection, cover closed		IP20	IP20	IP20
Degree of protection, cover opened		IP20	IP20	IP20
Operating ambient temperature		-25 ÷ +55 °C	-25 ÷ +55 °C	-25 ÷ +55 °C
Working position		see page H3	see page H3	see page H3
Max. sea level		2 000 m	2 000 m	2 000 m
Seismic resistance according to VE ŠKODA		3 g / 8 ÷ 50 Hz	3 g / 8 ÷ 50 Hz	3 g / 8 ÷ 50 Hz

¹⁾ In case of use disconnecting links ZPV.. in the switch-disconnector, the utilization category is decreased by one degree

²⁾ It is not valid for 1-pole design

³⁾ For underground cable distribution systems with overvoltage protection or for exposure to a low thunderstorm electricity (table H2 EN 60947-1, IEC 60947-1)

According to standard EN 60947-3 ed. 2/A2, p. C.5. Instructions for the use of 1-pole controlled device states:

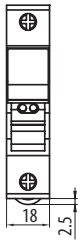
These devices are intended for distribution systems, with possible necessity of switching and/or safe disconnection of individual phases and should not be used for switching a primary circuit of a three-phase equipment.

Correction of rated current of fuse-links PV gG, aM according to the number of poles

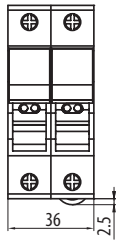
Type	I_n [A]	Reduced rated current [A] (Number of poles)				
		1	3	5	7	10
OPVP10	32	32	32	32	32	32
OPVP14	63	63	63	63	63	63
OPVP22	125	125	120	118	117	116

Dimensions

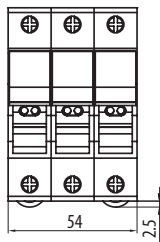
OPVP10-1..



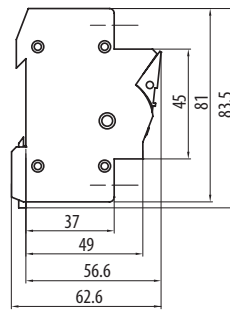
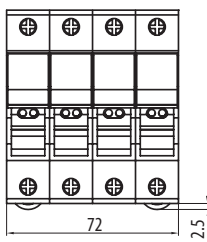
**OPVP10-1N
OPVP10-2..**



OPVP10-3..



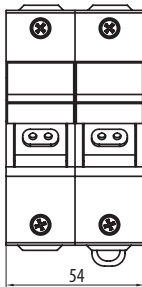
OPVP10-3N



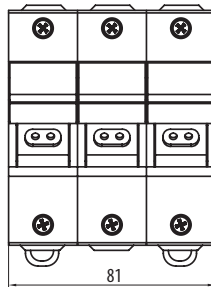
OPVP14-1..



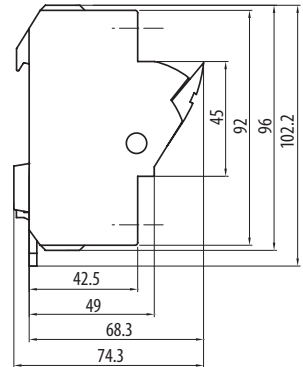
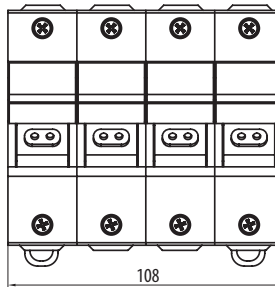
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OPVP14-2..**



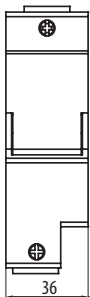
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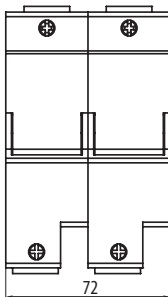
OPVP14-3N



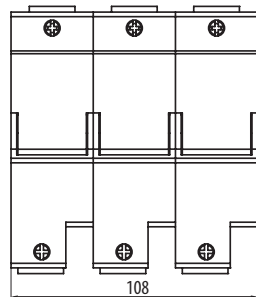
OPVP22-1..



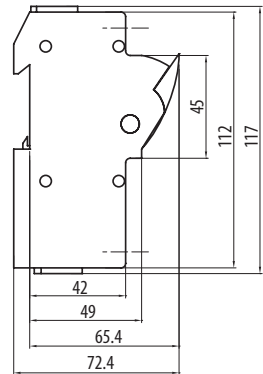
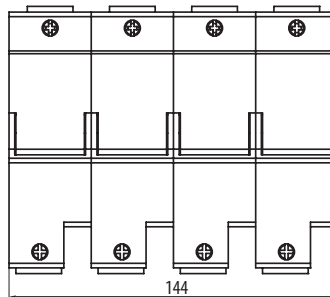
**OPVP22-1N
OPVP22-2..**



OPVP22-3..



OPVP22-3N

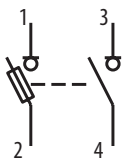


Diagram

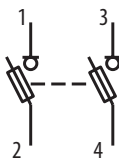
OPVP..-1



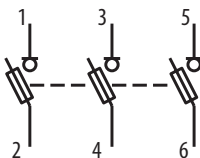
OPVP..-1N



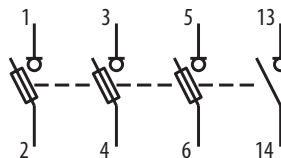
OPVP..-2



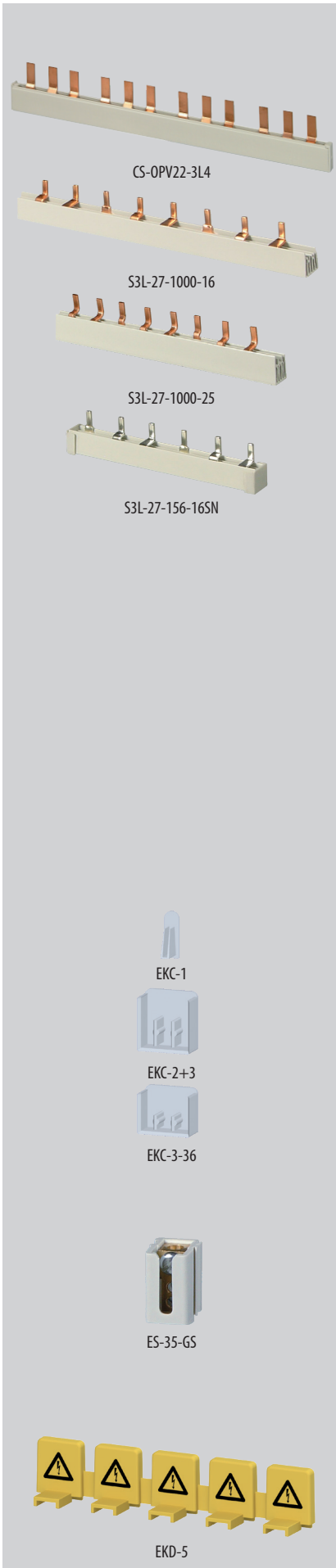
OPVP..-3



OPVP..-3N



ACCESSORIES FOR OPVP



Interconnecting busbars

- For interconnection of 1- up to 3-pole fuse switch-disconnectors.
- The S1L-..., S2L-..., S3L-..., CS-... interconnecting busbars are with pins.
- After cutting the interconnecting busbars to a concrete length it is necessary to remove Cu burrs so they cannot cause short-circuit or similar defect. Wherever it is possible, use end caps to cover the ends of the interconnecting busbars.

Interconnecting busbars for OPVP10

Number of poles	Spacing of outlets [mm]	Number of outlets	Cross-section [mm ²]	Type	Order code	End cap	Weight [kg]	Package [pcs]
1	17.8	12	10	S1L-210-10	OEZ:38475	- ¹⁾	0.045	50
		12	16	S1L-210-16	OEZ:37374	- ¹⁾	0.047	50
		57	16	S1L-1000-16	OEZ:37375	EKC-1	0.302	50
2	17.8	6x 2	10	S2L-210-10	OEZ:38476	- ¹⁾	0.067	20
		6x 2	16	S2L-210-16	OEZ:38477	- ¹⁾	0.110	20
		28x 2	16	S2L-1000-16	OEZ:37378	EKC-2+3	0.477	20
3	17.8	4x 3	10	S3L-210-10	OEZ:38482	- ¹⁾	0.110	25
		4x 3	16	S3L-210-16	OEZ:38483	- ¹⁾	0.150	25
		19x3	16	S3L-1000-16	OEZ:37379	- ¹⁾	0.737	20

Interconnecting busbars for OPVP14

Number of poles	Spacing of outlets [mm]	Number of outlets	Cross-section [mm ²]	Type	Order code	End cap	Weight [kg]	Package [pcs]
3	27.0	2x 3	16	S3L-27-156-16SN	OEZ:11892	- ¹⁾	0.065	1
		12x 3	16	S3L-27-1000-16	OEZ:37380	EKC-2+3	0.537	1
		12x 3	25	S3L-27-1000-25	OEZ:37381	EKC-3-36	0.995	1

Interconnecting busbars for OPVP22

Number of poles	Spacing of outlets [mm]	Number of outlets	Cross-section [mm ²]	Type	Order code	End cap	Weight [kg]	Package [pcs]
3	35	2x 3	35	CS-OPV22-3L2	OEZ:35954	- ¹⁾	0.184	5
		3x 3	35	CS-OPV22-3L3	OEZ:35955	- ¹⁾	0.320	5
		4x 3	35	CS-OPV22-3L4	OEZ:35956	- ¹⁾	0.452	5
		5x 3	35	CS-OPV22-3L5	OEZ:35957	- ¹⁾	0.590	5

¹⁾ The interconnecting busbar is made covered

Accessories of interconnecting busbars

End caps

- For covering the ends of interconnecting busbars.

Type	Order code	Description	Weight [kg]	Package [pcs]
EKC-1	OEZ:37383	for 1-pole busbars of cross-section 10, 12, 16 mm ²	0.00005	10
EKC-2+3	OEZ:37384	for 2-pole and 3-pole busbars of cross-section 16 mm ²	0.001	10
EKC-3-36	OEZ:37386	for 3-pole and 4-pole busbars of cross-section 25 mm ²	0.002	10

Power supply unit

- It enables power supply of interconnecting busbars by conductors of cross-section up to 35 mm².
- For power supply unit connection it is necessary to use interconnecting busbar with more positions.
- The blocs can be assembled in series to create multi-pole connection unit.
- Degree of protection IP20.

Type	Order code	Description	Weight [kg]	Package [pcs]
ES-35-GS	OEZ:37388	for S1L..., S2L..., S3L...	0.035	10

Outlet cover

- It enables isolation of unused outlets of interconnecting busbars.
- For covering five unused outlets.

Type	Order code	Description	Weight [kg]	Package [pcs]
EKD-5	OEZ:43147	for S1L..., S2L..., S3L...	0.004	10

Specifications

Type		S1L..,	S2L.., S3L-..	CS..
Rated operating voltage	U_e	AC 690 V / DC 1 000 V	AC 415 V	AC 690 V
Loading current		63 ÷ 180 A	63 ÷ 180 A	125 ÷ 200 A
Cross-section		10 ÷ 25 mm ²	10 ÷ 25 mm ²	35 mm ²
Short-circuit strength with backup fuse gG		50 kA / 250 A	50 kA / 250 A	100 kA / 350 A
Overvoltage category		III	III	III
Rated impulse voltage		8 kV	8 kV	6,5 kV
Degree of protection		IP20	IP20	IP20

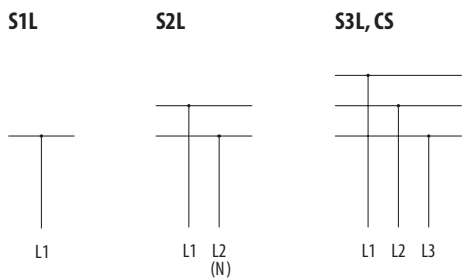
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Max. loading current per phase

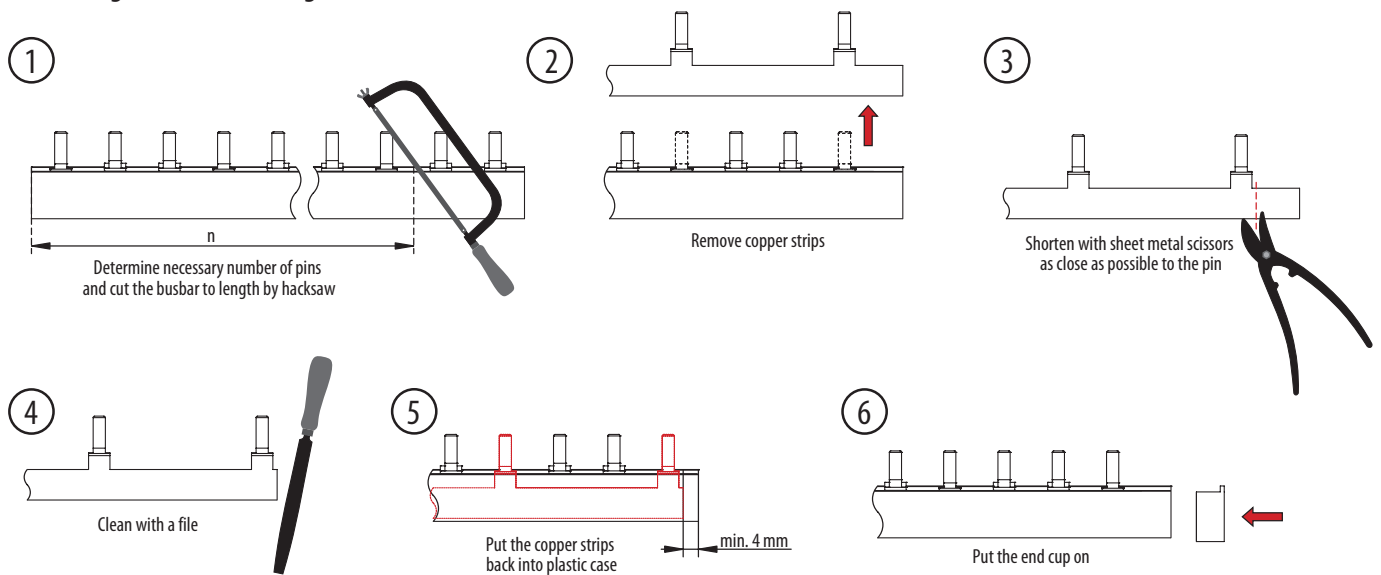
	Cross-section of interconnecting busbar						
	10 mm ²	12 mm ²	16 mm ²	20 mm ²	24 mm ²	25 mm ²	35 mm ²
Power supply from the busbar edge	63 A	65 A	80 A	90 A	100 A	100 A	125 A
Power supply from the busbar centre ¹⁾	100 A	110 A	130 A	150 A	170 A	180 A	200 A

¹⁾ Max. loading current in one direction should not be higher than max. loading current at power supply the busbar edge

Diagram

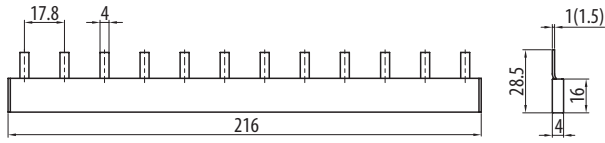


Shortening of interconnecting busbars

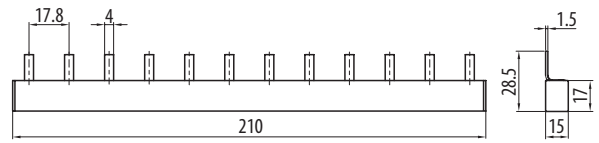


Dimensions

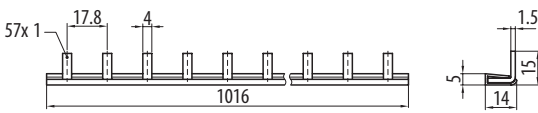
S1L-210-10. S1L-210-16



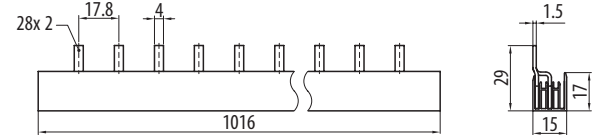
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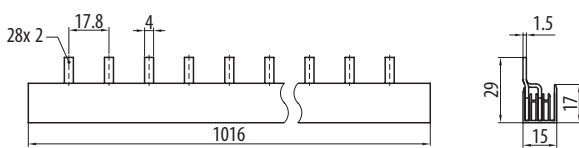
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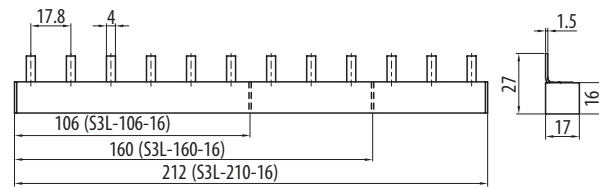
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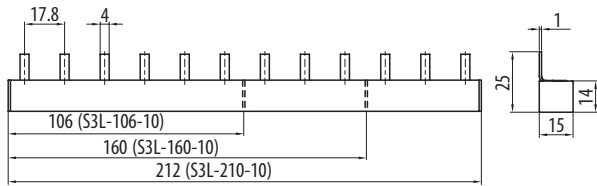
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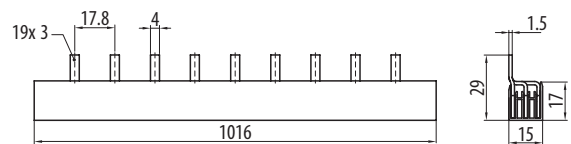
S3L-106-16. S3L-106-16. S3L-210-16



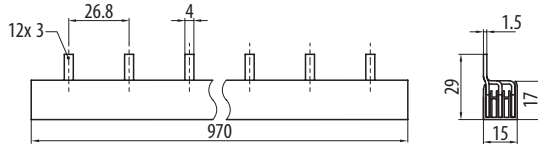
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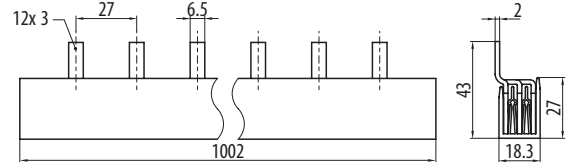
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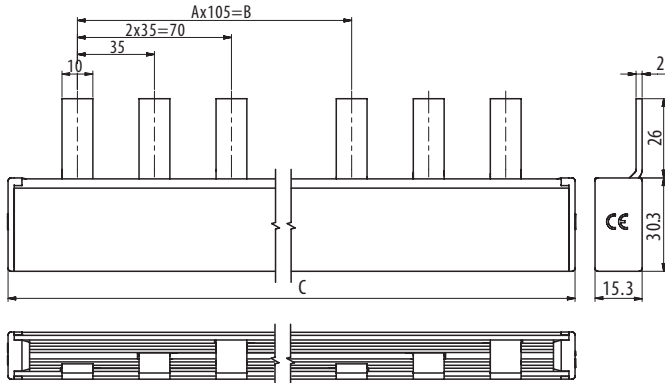
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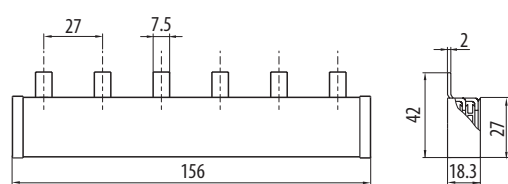
S3L-27-1000-25



CS-OPV22-3L..



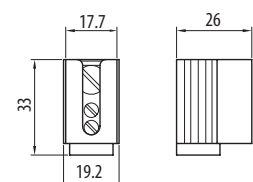
S3L-27-156-16SN



Type	Dimensions		
	A [number]	B [mm]	C [mm]
CS-OPV22-3L2	1	105	213
CS-OPV22-3L3	2	210	318
CS-OPV22-3L4	3	315	423
CS-OPV22-3L5	4	420	528

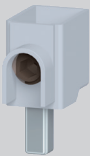
Dimensions of power supply unit

ES-35-GS

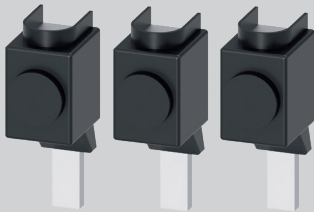




AS-50-S-L



AS-50-S-AL01



3NP1923-1BD00

Terminal extensions up to 50 mm²

- With long terminal.
- It is used in combination with interconnecting busbar S1L., S2L., S3L..
- For connection of Cu conductor.
- Cross-section of Cu conductor: 6 ÷ 50 mm².
- Max. loading current 63 A.

Type	Order code	Accessory for	Weight [kg]	Package [pcs]
AS-50-S-L	OEZ:43149	OPVP10, OPVP14	0.033	1

- For connection of Cu/Al conductor.
- Cross-section of Cu/Al conductor: 2.5 ÷ 50 mm².
- Max. loading current 63 A.

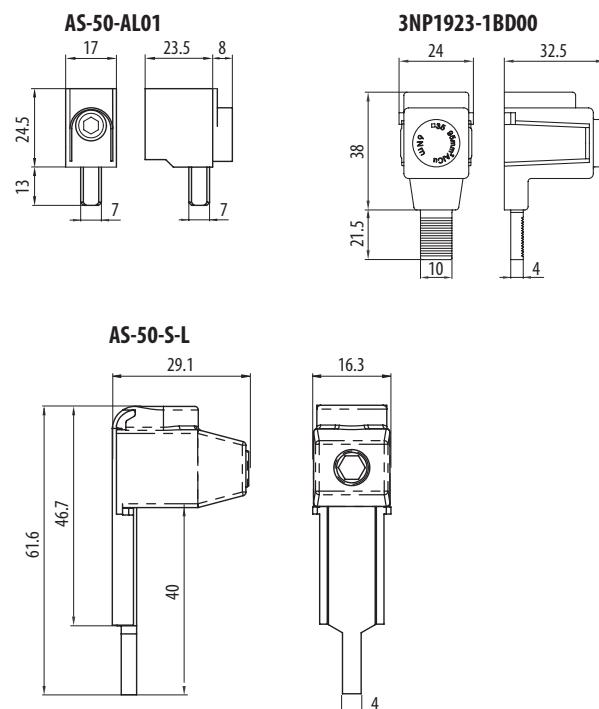
Type	Order code	Accessory for	Weight [kg]	Package [pcs]
AS-50-S-AL01	OEZ:38749	OPVP14	0.032	1

Terminal extensions up to 95 mm²

- Accessory for fuse switch-disconnector OPVP22-3...
- For connection of Cu conductor of cross-section 35 ÷ 95 mm².
- Possibility of connection of two stranded conductors up to 25 mm².

Type	Order code	Description	Weight [kg]	Package [pcs]
3NP1923-1BD00	3NP1923-1BD00	with straight terminal, 3 pcs	0.260	1

Dimensions of terminal extensions





OD-OPV-AD45

Adapter on DIN rail

- It extends mounting depth of fuse switch-disconnector.

Type	Order code	Accessory for	Weight [kg]	Package [pcs]
OD-OPV-AD45	OEZ:43148	OPVP10	0.008	1



8US1661-5FK02

Adapter for busbar system

- Busbar spacing 60 mm.
- Busbar thickness 5 or 10 mm.
- Busbar width up to 12 mm.
- Cable outlet bottom.
- Max. current 63 A.

Type	Order code	Accessory for	Weight [kg]	Package [pcs]
8US1661-5FK02	8US1661-5FK02	OPVP10, OPVP14	0.56	1

B