

## SUMMARY OF MODELS

Type	OPVP10	OPVP14	OPVP22	OPT22/OPT20	OPVF10
Rated operating current $I_e$ / Rated current $I_n$	32 A / -	63 A / -	125 A / -	63 A / -	- / 30 A
Rated operating voltage $U_e$ / 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 1 000 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

<b>Interconnecting busbars</b> 	S1L-..., S2L-..., S3...	S3L-...	CS-OPV22-...	-	-
<b>Terminal extension</b> 	AS-...		CS-FH000-..	-	-
<b>Adapter for busbar system with spacing 60 mm</b> 	GA-...		-	-	-
<b>Remote signalling of fuse-link state</b> 		MD-M3		-	-

## SUMMARY OF MODELS

### Description

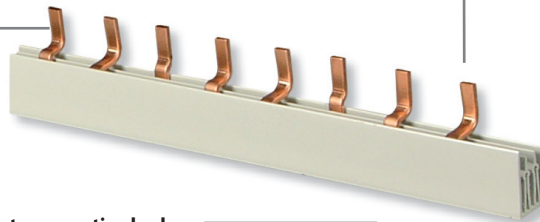
#### Outlet cover

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



#### Connection block

- Enables power supply of interconnecting busbars by conductors of cross-section up to 35 mm<sup>2</sup>.
- The blocks can be assembled in series to create a multi-pole connection unit.
- Degree of protection IP20.



#### End caps

- For covering the ends of interconnecting busbars.



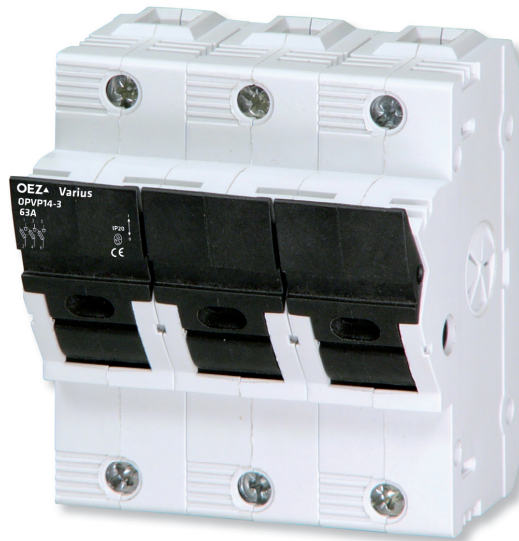
#### Terminal extension

- Accessory for switch-disconnector OPVP22-3...
- For connection of Cu/Al conductor of cross-section 35 ÷ 95 mm<sup>2</sup>.
- Possibility of connection of two stranded conductors up to 25 mm<sup>2</sup>.



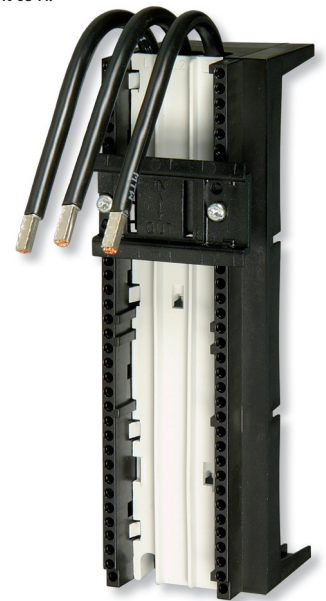
#### Interconnecting busbar

- 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 12 ÷ 30 mm.
- Cable outlet bottom.
- Max. current 63 A.



#### Accessory for switch-disconnector OPVP10 and OPVP14.

- For connection of Cu conductor.
- Cross-section of Cu conductor 6 ÷ 50 mm<sup>2</sup>.



#### Accessory for switch-disconnector OPVP14.

- For connection of Al or Cu conductor.
- Cross-section of Cu/Al conductor 2.5 ÷ 50 mm<sup>2</sup>.



**FUSE SWITCH-DISCONNECTORS OPVP**



- Fuse switch-disconnectors are intended for cylindrical fuse-links.
- They can safely switch off rated current and overcurrent. They meet the requirements 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.
- Possible interconnection by means of busbars.
- It is possible to use adapter for busbars with spacing 60 mm GA-... for OPVP10 and OPVP14.
- The devices are designed as modular for 45 mm cut-out in the switchboard cover plate 45 mm.
- Mounting on "U" rails according to EN 60715 (steel rail recommended).

**Fuse switch-disconnectors**

$I_n$ [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
	1+N	OPVP22-1N	OEZ:43696	0.358	3
	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 blowing.

$I_n$ [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 extension	AS-., CS-..	page B10
Adapters	OD-., GA-..	page B11

## FUSE SWITCH-DISCONNECTORS OPVP

### 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	$I_e$	32 A	63 A	125 A
Rated operating voltage	$U_e$	AC 690 V / DC 440 V	AC 690 V / DC 440 V	AC 690 V / DC 440 V
Utilization category <sup>1)</sup>		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 <sup>2)</sup>	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 conductors	$I_{th}$	100 A / 25 mm <sup>2</sup>	110 A / 35 mm <sup>2</sup>	150 A / 50 mm <sup>2</sup>
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
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 <sup>3)</sup> ) / AC 690 V, II(III <sup>3)</sup> ) / AC 500 V, III / AC 400 V	I(II <sup>3)</sup> ) / AC 690 V, II(III <sup>3)</sup> ) / AC 500 V, III / AC 400 V	II(III <sup>3)</sup> ) / AC 690 V, III(IV <sup>3)</sup> ) / AC 500 V
Connection				
Connection cross-section		Cu / 0.75 ÷ 25 mm <sup>2</sup> 2x (6 ÷ 16) stranded in the same size	Cu / 1.5 ÷ 35 mm <sup>2</sup> 2x (6 ÷ 16) stranded in the same size	Cu / 4 ÷ 50 mm <sup>2</sup> -
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 blowing		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
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 I3	see page I3	see page I3
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

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

<sup>2)</sup> It is not valid for 1-pole design

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

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

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

### Correction of rated currents 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

### FUSE SWITCH-DISCONNECTORS OPVP

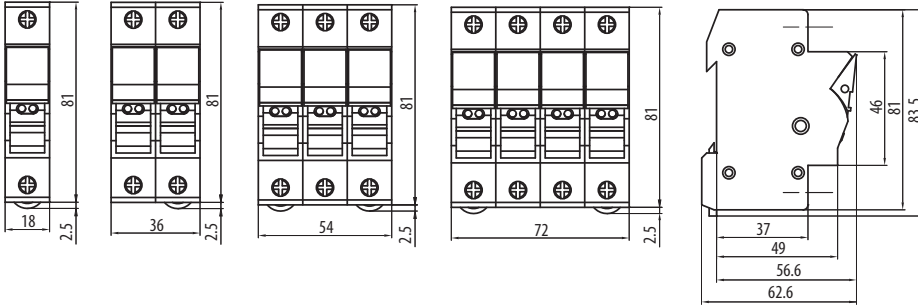
#### Dimensions

OPVP10-1..

OPVP10-1N  
OPVP10-2..

OPVP10-3..

OPVP10-3N

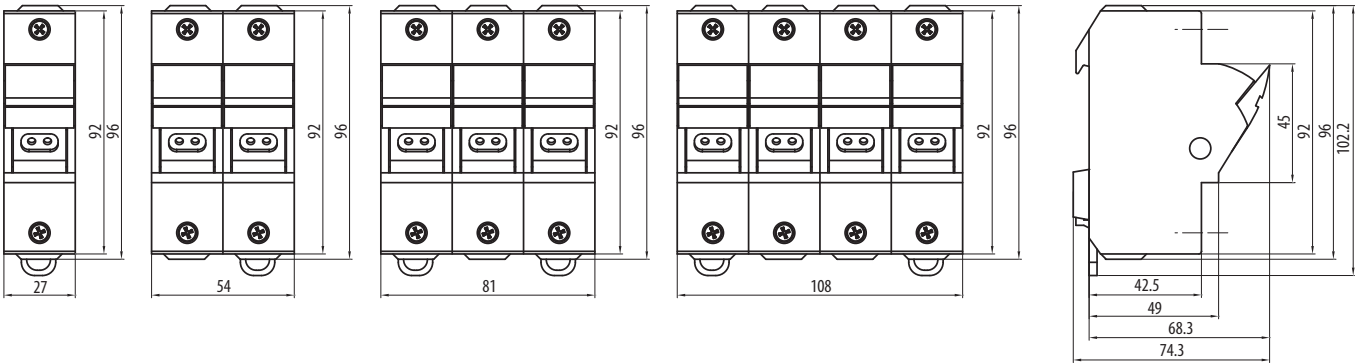


OPVP14-1..

OPVP14-1N  
OPVP14-2..

OPVP14-3..

OPVP14-3N

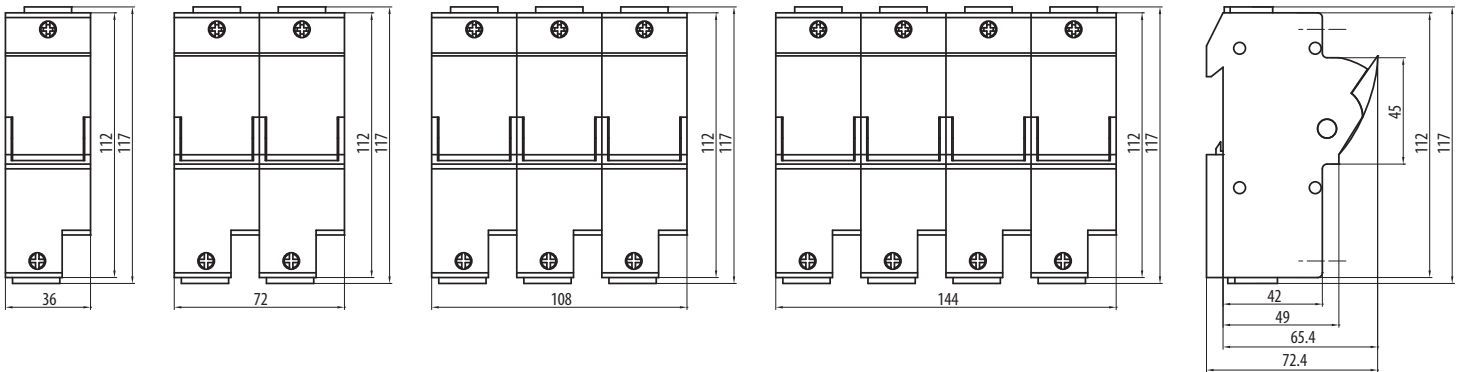


OPVP22-1..

OPVP22-1N  
OPVP22-2..

OPVP22-3..

OPVP22-3N



#### Diagram

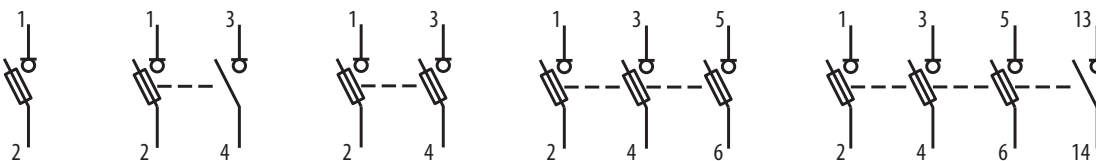
OPVP..-1

OPVP..-1N

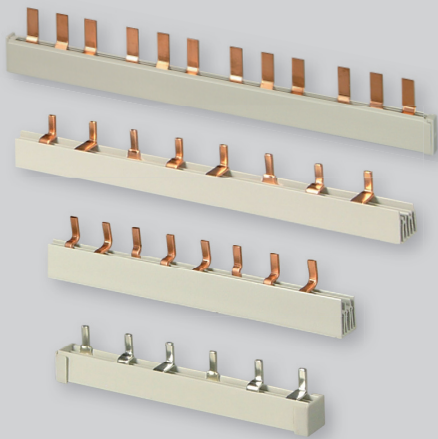
OPVP..-2

OPVP..-3

OPVP..-3N



## ACCESSORIES FOR OPVP



### Interconnecting busbars

- For interconnection of 1- to 3-pole fuse switch-disconnectors.
- The S1L-..., S2L-..., S3L-..., CS-... busbars are with pins.
- After cutting the busbars to a concrete length it is necessary to remove copper burrs so that 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 <sup>2</sup> ]	Type	Order code	End cap	Weight [kg]	Package [pcs]
1	17,8	12	10	<b>S1L-210-10</b>	OEZ:38475	- <sup>1)</sup>	0.045	50
		57	16	<b>S1L-1000-16</b>	OEZ:37375	EKC-1	0.302	50
2	17,8	6x 2	10	<b>S2L-210-10</b>	OEZ:38476	- <sup>1)</sup>	0.067	20
		28x 2	16	<b>S2L-1000-16</b>	OEZ:37378	EKC-2+3	0.477	20
3	17,8	4x 3	10	<b>S3L-210-10</b>	OEZ:38482	- <sup>1)</sup>	0.110	25
		19x3	16	<b>S3L-1000-16</b>	OEZ:37379	- <sup>1)</sup>	0.737	20

### Interconnecting busbars for OPVP14

Number of poles	Spacing of outlets [mm]	Number of outlets	Cross-section [mm <sup>2</sup> ]	Type	Order code	End cap	Weight [kg]	Package [pcs]
3	26,7	12x 3	16	<b>S3L-27-1000-16</b>	OEZ:37380	EKC-2+3	0.537	1
		6x3	16	<b>S3L-27-156-16SN</b>	OEZ:11892	- <sup>1)</sup>	0.065	1
		12x 3	25	<b>S3L-27-1000-25</b>	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 <sup>2</sup> ]	Type	Order code	End cap	Weight [kg]	Package [pcs]
3	35	2x3	35	<b>CS-OPV22-3L2</b>	OEZ:35954	- <sup>1)</sup>	0.184	5
		3x3	35	<b>CS-OPV22-3L3</b>	OEZ:35955	- <sup>1)</sup>	0.320	5
		4x3	35	<b>CS-OPV22-3L4</b>	OEZ:35956	- <sup>1)</sup>	0.452	5
		5x3	35	<b>CS-OPV22-3L5</b>	OEZ:35957	- <sup>1)</sup>	0.590	5

<sup>1)</sup> The busbar is made covered

## Accessories for interconnecting busbars

### End caps

- For covering the ends of interconnecting busbars.

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

### Power supply unit

- Enables power supply of interconnecting busbars by conductors of cross-section up to 35 mm<sup>2</sup>.
- For power supply unit connection it is necessary to use interconnecting busbar with more positions
- The blocks can be assembled in series to create a multi-pole connection unit.
- Degree of protection IP20.

Type	Order code	Description	Weight [kg]	Package [pcs]
<b>ES-35-GS</b>	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]
<b>EKD-5</b>	OEZ:43147	for S1L..., S2L..., S3L...	0.004	10



### ACCESSORIES FOR OPVP

#### Specifications

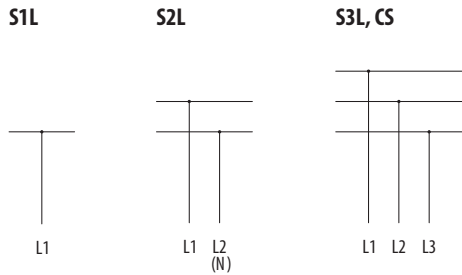
Type		S1L..,	S2L.., S3L..	CS..
Rated operating voltage	$U_e$	AC 690 V / DC 1 000 V	AC 415 V	AC 690 V
Loading current		63 ÷ 180 A	63 ÷ 180 A	125 ÷ 200 A
Cross-section		10 ÷ 25 mm <sup>2</sup>	10 ÷ 25 mm <sup>2</sup>	35 mm <sup>2</sup>
Short-circuit resistance with backup fuse		50 kA / 250 A	50 kA / 250 A	100 kA / 350 A
Overtoltage category		III	III	III
Rated impulse voltage		8 kV	8 kV	6.5 kV
Degree of protection		IP20	IP20	IP20

#### Max. loading current in phase

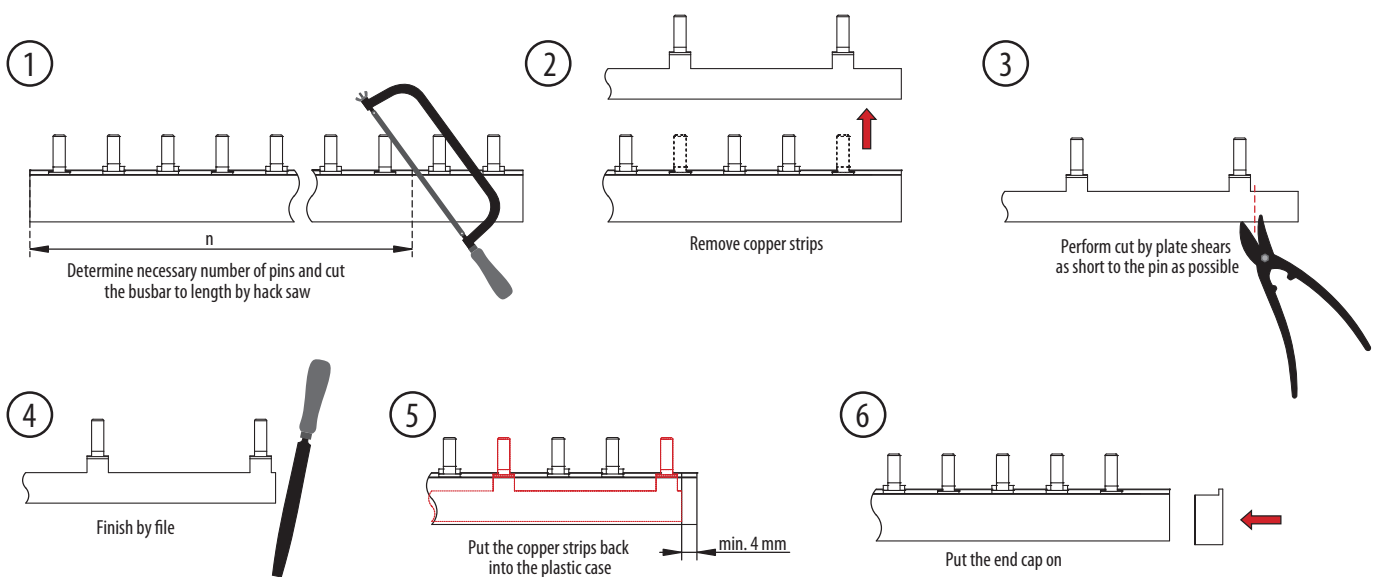
	Cross-section of busbar						
	10 mm <sup>2</sup>	12 mm <sup>2</sup>	16 mm <sup>2</sup>	20 mm <sup>2</sup>	24 mm <sup>2</sup>	25 mm <sup>2</sup>	35 mm <sup>2</sup>
Power supply from the rail edge	63 A	65 A	80 A	90 A	100 A	100 A	125 A
Power supply from the rail centre <sup>1)</sup>	100 A	110 A	130 A	150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

<sup>1)</sup> Max. loading current in one direction must not be higher than max. loading current at power supply from the rail edge

#### Diagram



#### Shortening interconnecting busbars

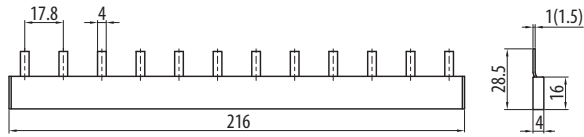




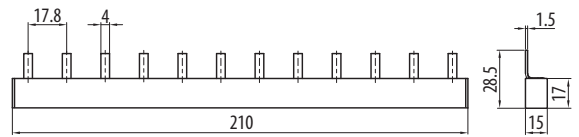
## ACCESSORIES FOR OPVP

### Dimensions

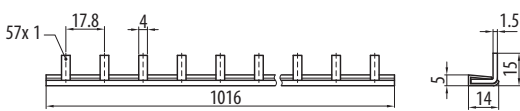
**S1L-210-10, S1L-210-16**



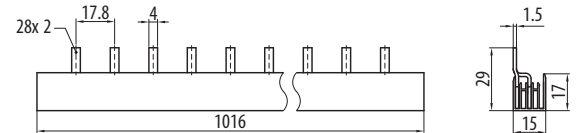
**S2L-210-10**



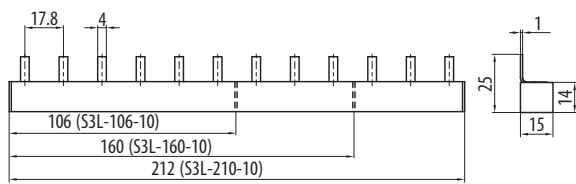
**S1L-1000-16**



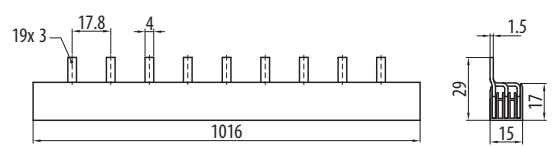
**S2L-1000-16**



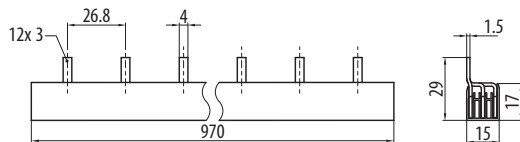
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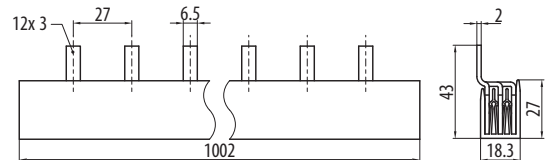
**S3L-1000-16**



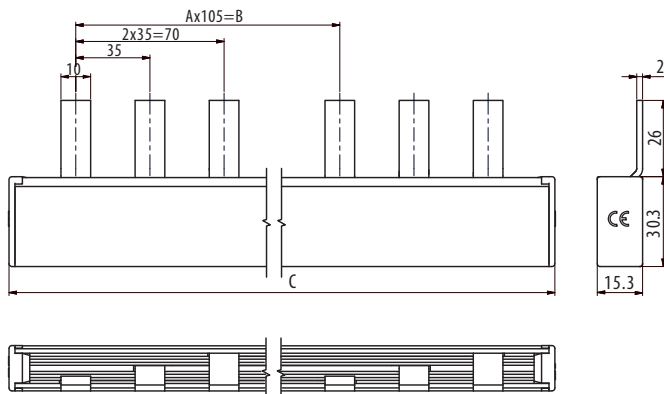
**S3L-27-1000-16**



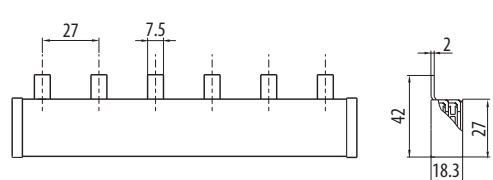
**S3L-27-1000-25**



**CS-OPV22-3L..**



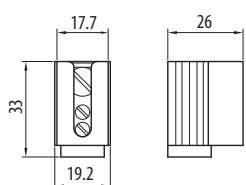
**S3L-27-156-16SN**



Type	Dimensions		
	A [number]	B [mm]	C [mm]
CS-OPV22-3L2	1	105	210
CS-OPV22-3L3	2	210	315
CS-OPV22-3L4	3	315	420
CS-OPV22-3L5	4	420	525

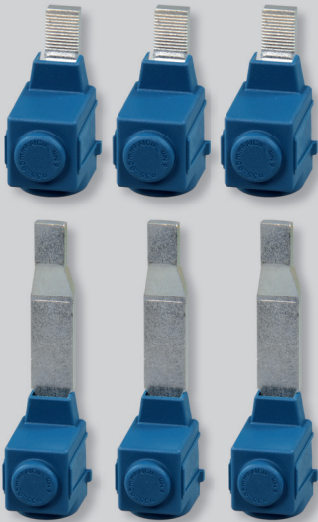
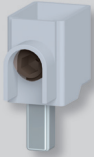
### Dimensions of power supply unit

**ES-35-GS**





ACCESSORIES FOR OPVP



Terminal extension up to 50 mm<sup>2</sup>

- With long terminal.
- It is used in combination with interconnecting busbar S1..., S2..., S3..
- For connection of Cu conductor.
- Cross-section of Cu conductor 6 ÷ 50 mm<sup>2</sup>.

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 mm<sup>2</sup>.

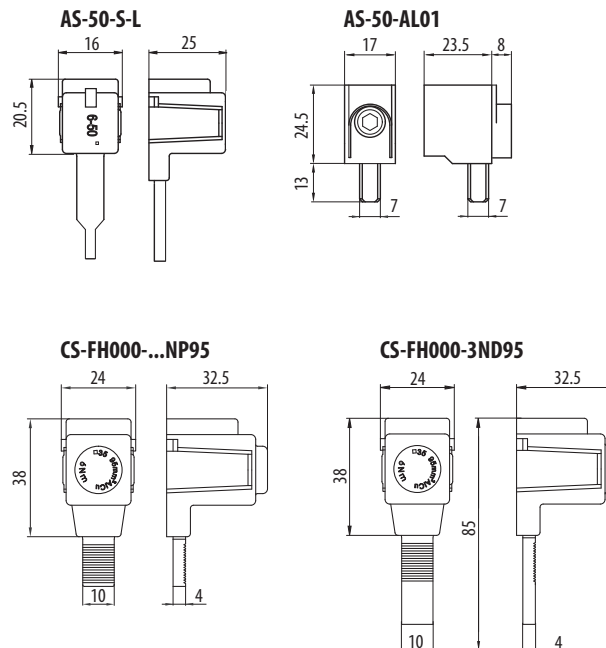
Type	Order code	Accessory for	Weight [kg]	Package [pcs]
AS-50-S-AL01	OEZ:38749	OPVP10, OPVP14	0.032	1

Terminal extension up to 95 mm<sup>2</sup>

- Accessory for switch-disconnector OPVP22-3..
- For connection of Cu/Al conductor of cross-section 35 ÷ 95 mm<sup>2</sup>.
- Possibility of connection of two stranded conductors up to 25 mm<sup>2</sup>.

Type	Order code	Description	Weight [kg]	Package [pcs]
CS-FH000-3NP95	OEZ:13740	with straight terminal, 3 pcs	0.184	1
CS-FH000-3ND95	OEZ:15589	with long terminal, 3 pcs	0.184	1

Dimensions připojovacích nástavců



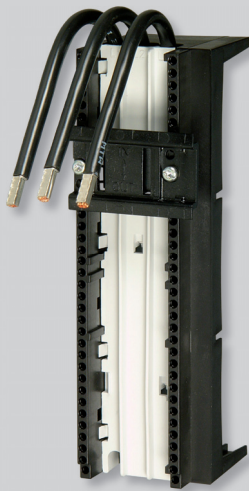
**ACCESSORIES FOR OPVP**



**Adapter on „U“ rail TH35**

- Extends the mounting depth of fuse switch-disconnector.

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



**Adapter for busbar system**

- Busbar spacing 60 mm.
- Busbar thickness 5 or 10 mm.
- Busbar width 12 ÷ 30 mm.
- Cable outlet bottom.
- Max. current 63 A.

Type	Order code	Accessory for	Weight [kg]	Package [pcs]
<b>GA-60/63/54-1x7,5</b>	OEZ:11883	OPVP10, OPVP14	0.56	1