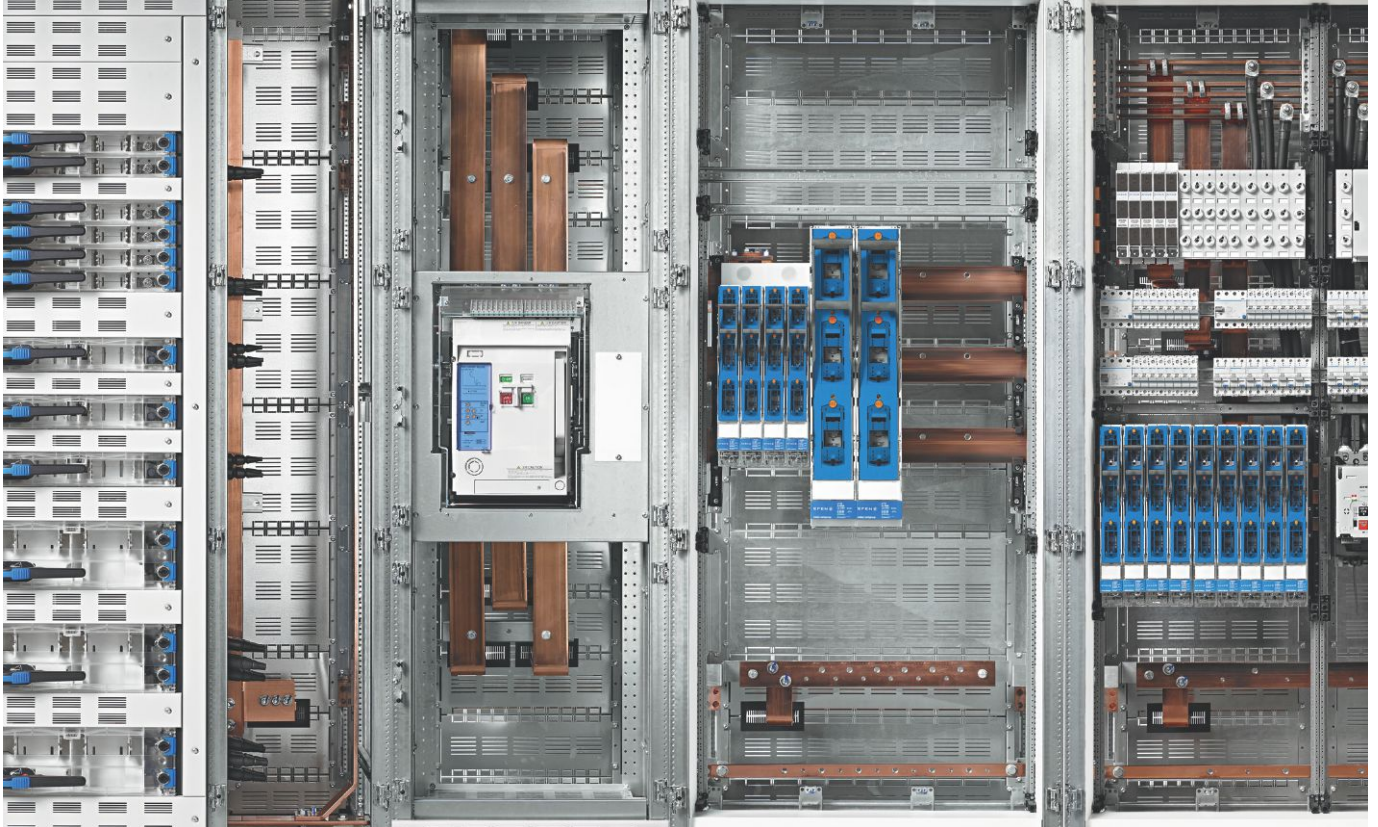




IN THE LINE OF POWER



Catalog
System accessories



System Extensions

As a specialist for safety interfaces, EFEN offers a wide range of solutions for complex requirements to ensure safe power distribution.



Surge Arrestors

For low-voltage overhead-line grids. Metal-oxide varistors in robust and aging-resistant ceramic housings. The surge arrestors are available as isolated and unisolated versions for various mounting types and terminals.

Product overview page 457



System Accessories

A further range of system accessories for fuse-links and power distribution components offers plant designers and switchgear engineers a nearly unlimited scope of options.

Product overview page 462



Surge Arrestor

As a specialist for safety interfaces, EFEN provides surge arrestors for power distribution grids that respond to power surges within nanoseconds, thereby reliably preventing damage.

System

The low-voltage surge arrestors are equipped with metal-oxide varistors installed in robust and aging-resistant ceramic housings. The arrestors respond within nanoseconds to produce a low residual voltage, thereby offering a high degree of protection against overvoltage.

Features

The surge arrestors are available as insulated and uninsulated variants for multiple mounting types and terminals. Tripped surge arrestors are easily identified by the catch strap.



Surge Arrestors

Low-voltage surge arrestors

page 458

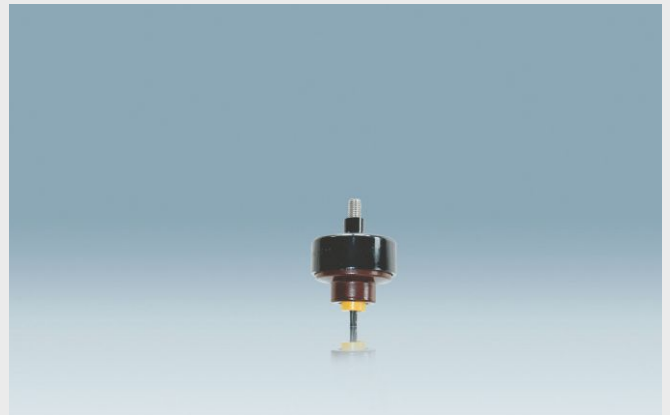
Technical data

page 460

Surge Arrestor
Unisolated variant



Surge Arrestor
Isolated variant



Surge Arrestor
with cable catch-strap



Low-voltage surge arrestors

► Technical data, page 460



69611-0040

Low-voltage surge arrestors

Features:

- Without catch strap – 5 kA / 10 kA

Designation	Connection	Length	In kA	Uc V	PU	Product designation	Order no.
Mounting bracket with clamp	End sleeve	650	5	280	6	ONA 280V 5KA ZNO 650 OS UH	69611-0040
Mounting bracket with clamp	CuAl sleeve	650	5	280	6	ONA 280V 5KA ZNO 650 OS UC	69613-0040
Mounting bracket with clamp	End sleeve	650	10	280	6	ONA 280V 10KA ZNO 650 OS UH	69811-0040
Mounting bracket with clamp	End sleeve	770	5	280	6	ONA 280V 5KA ZNO 770 OS UH	69611-0050
Mounting bracket with clamp	Cable lug	770	5	280	6	ONA 280V 5KA ZNO 770 OS UK	69612-0050
Mounting bracket with clamp	End sleeve	770	10	280	6	ONA 280V 10KA ZNO 770 OS UH	69811-0050
Mounting bracket with clamp	End sleeve	1000	5	280	6	ONA 280V 5KA ZNO 1000 OS UH	69611-0060
Mounting bracket with clamp	End sleeve	1000	10	280	6	ONA 280V 10KA ZNO 1000 OS UH	69811-0060
Stud terminal M8 x 25, non-insulated	Unassembled	550	5	280	6	ONA 280V 5KA ZNO 550 OB M8X25 UU	69624-0070
Stud terminal M8 x 25, non-insulated	End sleeve	650	5	280	6	ONA 280V 5KA ZNO 650 OB M8X25 UH	69621-0040
Stud terminal M8 x 25, non-insulated	End sleeve	650	10	280	6	ONA 280V 10KA ZNO 650 OB M8X25 UH	69821-0040
Stud terminal M8 x 25, insulated	End sleeve	650	5	280	6	ONA 280V 5KA ZNO 650 OB M8X25 IS UH	69641-0040
Stud terminal M8 x 25, insulated	End sleeve	770	5	280	6	ONA 280V 5KA ZNO 770 OB M8X25 IS UH	69641-0050
Stud terminal M8 x 25, insulated	End sleeve	1000	5	280	6	ONA 280V 5KA ZNO 1000 OB M8X25 IS UH	69641-0060
Stud terminal M8 x 25, insulated	End sleeve	650	10	280	6	ONA 280V 10KA ZNO 650 OB M8X25 IS UH	69841-0040
Stud terminal M8 x 25, insulated	End sleeve	650	10	500	6	ONA 500V 10KA ZNO 650 OB M8X25 IS UH	69941-0040
ONA 280V 5KA ZNO 1000 OB M8X25 UH Z1					6	ONA 280V 5KA ZNO 1000 OB M8X25 UH Z1	69621-5060
Stud terminal M8 x 25, insulated	Unassembled	1000	5	500	1	ONA 500V 5KA ZNO 1000 OB M8X25 UU Z1	69721-5160
Stud terminal M8 x 25, insulated	Unassembled	1000	5	500	6	ONA 500V 5KA ZNO 1000 OB M8X25 IS UU Z3	69741-6160
Stud terminal M8 x 25, insulated	Unassembled	1000	5	500	6	ONA 500V 5KA ZNO 1000 OB M8X25 IS UU Z4	69741-7160
Stud terminal M8 x 25, insulated	Unassembled	1000	5	500	6	ONA 500V 5KA ZNO 1000 OB M8x25IS Z6 UU	69741-8160
Stud terminal M8 x 25, insulated	Unassembled	1000	5	500	6	ONA 500V 5KA ZNO 1000 OB M8x25IS Z5 UU	69744-9060
Stud terminal M8 x 30, insulated	Unassembled	1000	5	500	6	ONA 500V 5KA ZNO 1000 OB M8x30IS Z1 UU	69764-5160



69841-0150

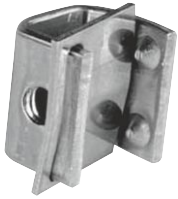
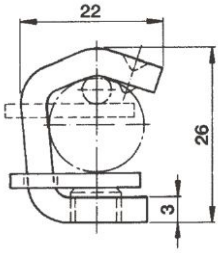
Low-voltage surge arrestors

Features:

- With catch strap – 10 kA

Designation	Connection	Length	In kA	Uc V	PU	Product designation	Order no.
Bolt M8 x 25, insulated	End sleeve	650	10	280	6	ONA 280V 10KA ZNO 650 OB M8X25 IS UH SA	69841-0150

Accessories



69500-0010

Accessories

Designation	PU	Product designation	Order no.
Universal clamp 10 – 120 mm ²	1	UNIVERSAL-HÄNGEKLEMME 1851	69500-0010
Insulated terminal M8 x 25 with internal thread	1	ISO-ANSCHLUSS 331940	69501-0010
Insulated tapping clamp 6 – 70 mm ²	1	ISO-ABZWEIGKLEMME 6-70QMM 331786	69502-0010
Insulated tapping clamp 50 – 95 mm ²	1	ISO-ABZWEIGKLEMME 50-95QMM 331530	69503-0010
Piercing clamp (1 side) Al 16 – 95 mm ²	1	DIR-PIERCING-KLEMME(1-SEITIG)AL16-95QMM	69504-0010
Piercing clamp (2 side) Al 16 – 95 mm ²	1	DIR-PIERCING-KLEMME(2-SEITIG)AL16-95QMM	69505-0010

Low-voltage surge arrestors

Function

Surge arrestors protect electrical equipment against overvoltage. Overvoltage may be caused by switching, ground or short circuits and atmospheric discharge.

In the case of overvoltage, the non-linear resistance drops so that the voltage surge is restricted.

Secondary currents are suppressed by the quickly increasing resistance.

The metal-oxide varistor has a very high resistance. It responds quickly and does not require an arching gap.

Product description

- Metal-oxide varistor embedded in ceramic insulator
- Terminal stud
- Mounting bracket with clamp made of stainless steel
- Accessories for all commonly used cables, overhead lines and power rails
- Insulated flexible copper 6-mm² connecting line is available with assembled ends or unassembled
- Yellow signal color for clear identification of tripped surge arrestors
- Plastic catch strap attached to insulating cap and connecting line prevents uncontrolled dumping of cable when arrestor is tripped

Benefits

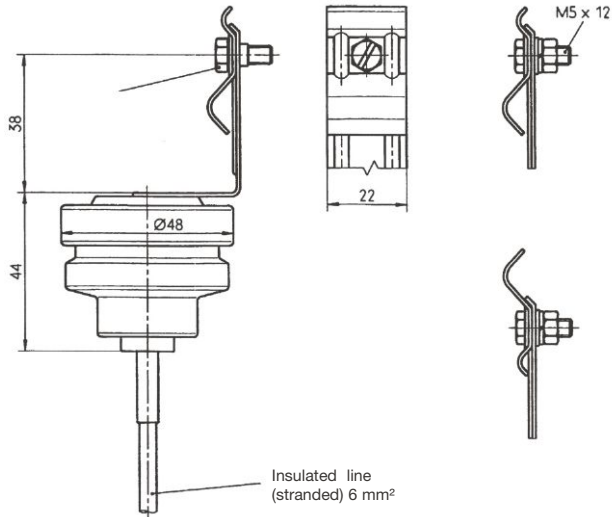
- High level of protection for electronic equipment within nanoseconds
- 10-kA variant is less sensitive due to its higher current capacity, thereby reducing service and maintenance costs
- Compact, waterproof, weather-resistant

Technical data

		ONA ZnO 5 kA 280 V	ONA ZnO 10 kA 280 V	ONA ZnO 5 kA 500 V	ONA ZnO 10 kA 500 V
Rated discharge current	I_N [kA]	5	10	5	10
Standard		IEC 61643-1 03/2005 EN 61643-11 12/2002 VDE 0675 - 6-112007-08			
Class		II/Outdoor			
Isolation device		yes	yes	yes	yes
Status indicator		yes	yes	yes	yes
Continuous voltage	U_C [V]	280	280	500	500
Maximum discharge surge current	I_{MAX} [kA]	25	25	25	25
Residual voltage without earth cable	U_{RES} [V]	851	987	1481	1642
Protection level without earth cable	U_P [kV]	0,9	1,0	1,5	1,8
Residual voltage with 1-m earth cable	U_{RES} [V]	1187	1688	1863	2353
Protection level with 1-m earth cable	U_P [kV]	1,2	1,8	2,0	2,5
Standby power consumption	P_C [mW]	56	56	106	106

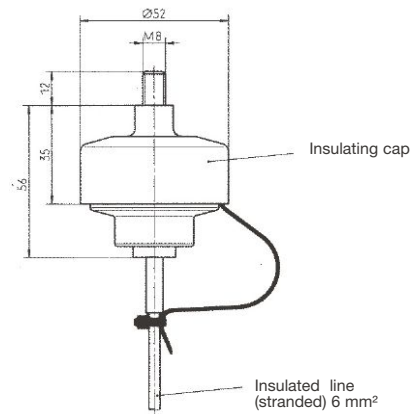
Low-voltage surge arrestors

Mounting bracket with clamp made of corrosion-resistant material

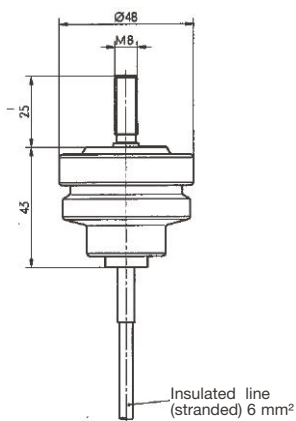


Connection with terminal stud

Insulated type with catch strap



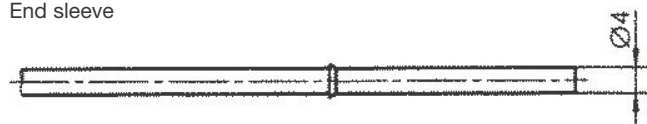
Non-insulated type



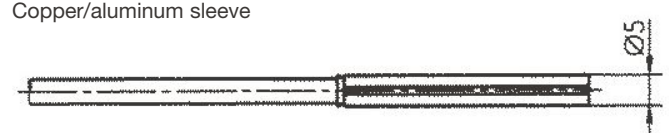
Terminal end options

Insulated flexible copper 6-mm² connecting line is available with assembled ends or unassembled

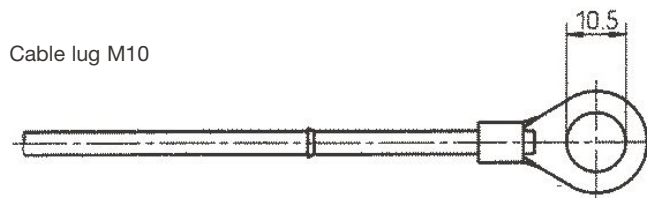
End sleeve



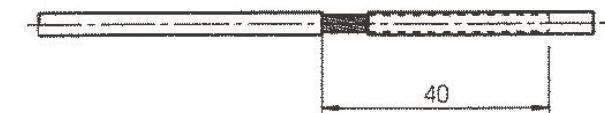
Copper/aluminum sleeve

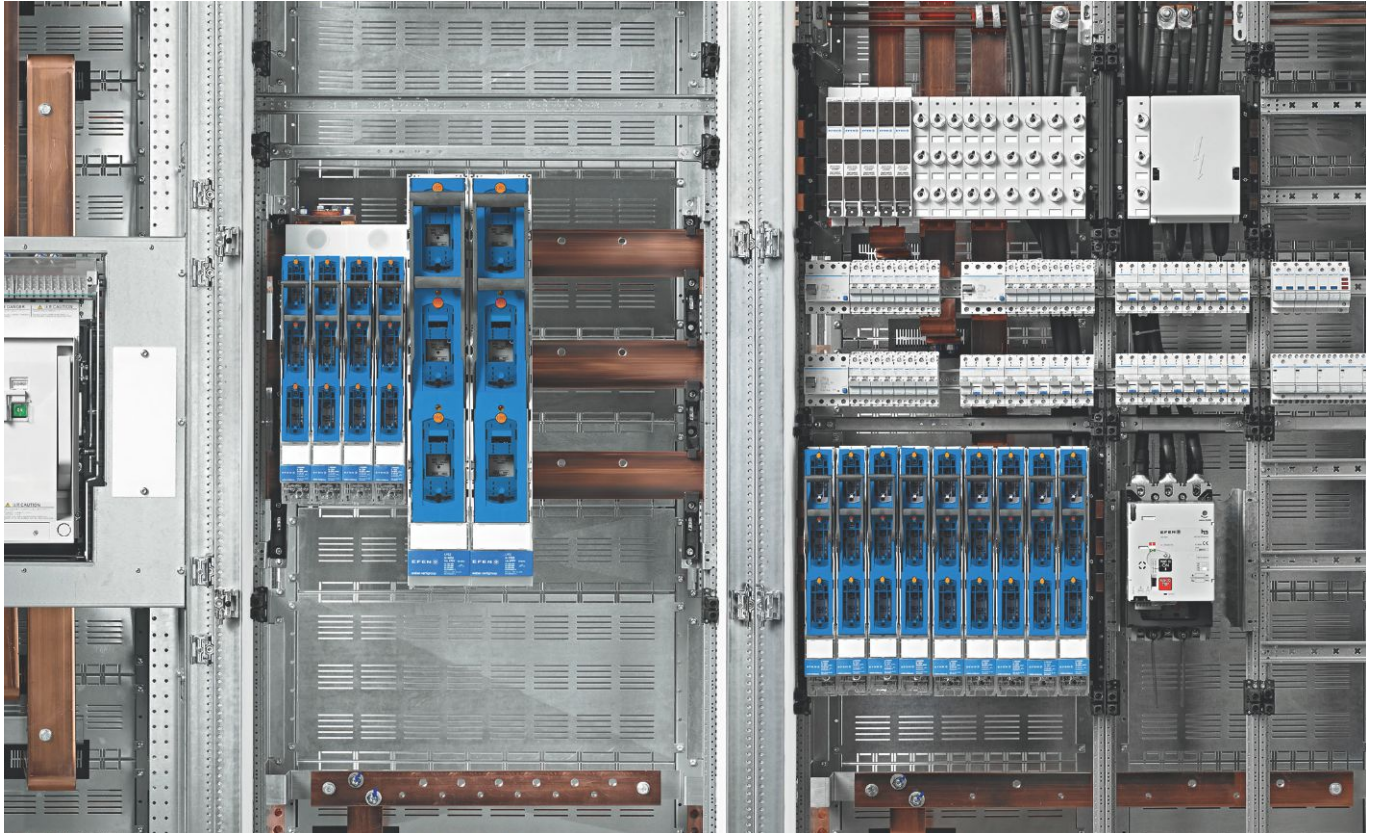


Cable lug M10



Unassembled





System Extensions for Switchgear Manufacturing

As a specialist for safety interfaces, EFEN provides a range of accessories to complement the assembly and application of safe power distribution systems.

System accessories

System

The wide range of accessories for fuses and power distribution components is especially tailored to EFEN products. From solutions to satisfy rare requirements to special installation material to different fuse-monitoring options.



System Accessories

Cable clamps	page 464
Busbar support	page 464
Feeding clamps	page 464
Clinch nuts	page 464
Insulator	page 465
V-clamps	page 466
Technical data	page 467

Busbar accessories

for 100, 185 and 60 mm busbar spacings



Further accessories

for switchgear manufacturing



System accessories

► Technical data, page 470, 475



36116-0010

Cable clamps

Features:

- Without mounting screws

Designation	PU	Product designation	Order no.
Cable clamp for 1 cable, Ø 25 – 38 mm ²	1	KABELSCHELLE 25-38 EFEN	36116-0010
Cable clamp for 3 cable, Ø 25 – 38 mm ²	1	KABELSCHELLE 3X 25-36 MM	36116-0020



85270-0600

Busbar support

Designation	Amps	PU	Product designation	Order no.
Plug-in elements for reduction to 30 x 10 busbar (6 pieces per support)	675	24	STECKELEMENT 30X10	85223-0400
Plug-in elements for reduction to 40 x 10 busbar (6 pieces per support)	850	24	STECKELEMENT 40X10	85223-0300
Plug-in elements for reduction to 50 x 10 busbar (6 pieces per support)	1000	24	STECKELEMENT 50X10	85223-0200
Busbar system, 60 x 10 busbar	1250	4	SAMMELSCHIENENHALTER 100MM	85223-0100
Plug-in elements for reduction to 60 x 10 busbar (6 pieces per support)	1250	24	STECKELEMENT 60X10 (40X10) VE24	85331-0200
Plug-in elements for reduction to 50 x 10 busbar (6 pieces per support)	1000	24	STECKELEMENT 50X10 (30X10) VE24	85331-0300
Busbar system, 80 x 10 busbar	1600	2	SAMMELSCHIENENHALTER 185MM	85331-0100
Universal busbar support for busbar dimensions 15, 20, 25, 30 x 5, 10 mm	800	4	SAMMELSCHIENENHALTER 60MM UNIVERSAL	85270-0600
Busbar support 60 mm 3-phase		10	Sammelschienenhalter 3P	90333-0100
Bracket f. lateral protection 60 mm 3p		10	Seitenschutz Sammelsch.halter 3P	90333-0900
Extension bracket +N to 4p		10	Sammelsch.erweiterung 1P	90334-0100
Extension f. lateral extension +N to 4p		10	Seitenschutz Sammelsch.erw. 1P	90334-0900



90265-0100

Feed clamps for busbars with 5 or 10 mm thickness

Designation	PU	Product designation	Order no.
Universal conductor terminal 1.5 – 16 mm ² , for 5-mm busbars	40	Leiteranschlusskl. 1,5-16mm ² SS5	90265-0100
Universal conductor terminal 1.5 – 16 mm ² , for 10-mm busbars	40	Leiteranschlusskl. 1,5-16mm ² SS10	90266-0100
Universal conductor terminal 1.5 – 35 mm ² , for 5-mm busbars	20	Leiteranschlusskl. 1,5-35mm ² SS5	90267-0100
Universal conductor terminal 1.5 – 35 mm ² , for 10-mm busbar	20	Leiteranschlusskl. 1,5-35mm ² SS10	90268-0100
Universal conductor terminal 16 – 120 mm ² , for 5-mm busbars	10	Leiteranschlusskl. 16-120mm ² SS5	90269-0100
Universal conductor terminal 16 – 120 mm ² , for 10-mm busbars	10	Leiteranschlusskl. 16-120mm ² SS10	90270-0100
Universal conductor terminal 16 – 70 mm ² , for 5-mm busbars	10	Leiteranschlusskl. 16-70mm ² SS5	90318-0100
Universal conductor terminal 16 – 70 mm ² , for 10-mm busbars	10	Leiteranschlusskl. 16-70mm ² SS10	90319-0100
Universal conductor terminal 16 – 185 mm ² , for 5-mm busbars	10	Leiteranschlusskl. 16-185mm ² SS5	90328-0100
Universal conductor terminal 16 – 185 mm ² , for 10-mm busbars	10	Leiteranschlusskl. 16-185mm ² SS10	90329-0100
Feed clamp IP2X, V2MD 240sm/300rm	3	Einspeiseklemme IP2X V2MD 240sm/300rm	36846-0040



85195-0100

Clinch nuts

Designation	PU	Product designation	Order no.
M6	1	SETZMUTTER M6	85195-0100
M8	1	SETZMUTTER M8	85133-0100
M10	1	SETZMUTTER M10	85130-0100
M12	1	Setzmutter M12	85131-0100
M16	1	SETZMUTTER M16	85402-0100

System accessories

► Technical data, page 473



36072-0700

Insulator

Features:

- Internally threaded

Designation	PU	Product designation	Order no.
Insulator H35 SW32 M10/M10	12	ISOLATOR H35 SW32 M10/M10	36072-0010
Insulator H35 SW32 M8/M8	1	ISOLATOR H35 SW32 M8/M8	36072-0020
Insulator H35 SW32 M6/M6	1	ISOLATOR H35 SW32 M6/M6	36072-0030
Insulator H30 SW30 M8/M8	1	ISOLATOR H30 SW30 M8/M8	36072-0110
Insulator H30 SW30 M6/M6	1	ISOLATOR H30 SW30 M6/M6	36072-0120
Insulator H30 SW30 M10/M10	1	ISOLATOR H30 SW30 M10/M10	36072-0130
Insulator H40 SW36 M6/M6	1	ISOLATOR H40 SW36 M6/M6	36072-0200
Insulator H40 SW36 M8/M8	1	ISOLATOR H40 SW36 M8/M8	36072-0210
Insulator H40 SW36 M10/M10	1	ISOLATOR H40 SW36 M10/M10	36072-0220
Insulator H45 SW46 M6/M6	1	ISOLATOR H45 SW46 M6/M6	36072-0300
Insulator H45 SW46 M8/M8	1	ISOLATOR H45 SW46 M8/M8	36072-0310
Insulator H45 SW46 M10/M10	1	ISOLATOR H45 SW46 M10/M10	36072-0320
Insulator H50 SW50 M6/M6	1	ISOLATOR H50 SW50 M6/M6	36072-0400
Insulator H50 SW50 M10/M10	1	ISOLATOR H50 SW50 M10/M10	36072-0410
Insulator H50 SW50 M12/M12	1	ISOLATOR H50 SW50 M12/M12	36072-0420
Insulator H50 SW50 M8/M8	1	ISOLATOR H50 SW50 M8/M8	36072-0430
Insulator H60 SW50 M6/M6	1	ISOLATOR H60 SW50 M6/M6	36072-0500
Insulator H60 SW50 M10/M10	1	ISOLATOR H60 SW50 M10/M10	36072-0510
Insulator H60 SW50 M12/M12	1	ISOLATOR H60 SW50 M12/M12	36072-0520
Insulator H60 SW50 M8/M8	1	ISOLATOR H60 SW50 M8/M8	36072-0530
Insulator H60 SW50 M16/M16	1	ISOLATOR H60 SW50 M16/M16	36072-0540
Insulator H70 SW60 M10/M10	1	ISOLATOR H70 SW60 M10/M10	36072-0610
Insulator H70 SW60 M12/M12	1	ISOLATOR H70 SW60 M12/M12	36072-0620
Insulator H70 SW60 M8/M8	1	ISOLATOR H70 SW60 M8/M8	36072-0630
Insulator H70 SW60 M16/16	1	ISOLATOR H70 SW60 M16/16	36072-0640
Insulator H25 SW36 M6/M6	1	ISOLATOR H25 SW36 M6/M6	36072-0700
Insulator H25 SW36 M8/M8	1	ISOLATOR H25 SW36 M8/M8	36072-0710



36079-0020

Insulator

Features:

- With stud

Designation	PU	Product designation	Order no.
Insulator HST25 SW36 M8/M8-10	1	ISOLATOR HST25 SW36 M8/M8	36079-0020
Insulator HST30 SW30 M6/M6	1	ISOLATOR HST30 SW30 M6/M6	36079-0100
Insulator HST30 SW30 M8/M8	1	ISOLATOR HST30 SW30 M8/M8	36079-0110
Insulator HST30 SW30 M10/M10	1	ISOLATOR HST30 SW30 M10/M10	36079-0120
Insulator HST50 SW50 M8/M8	1	ISOLATOR HST50 SW50 M8/M8	36079-0210
Insulator HST50 SW50 M10/M10	1	ISOLATOR HST50 SW50 M10/M10	36079-0220
Insulator HST50 SW50 M12/M12	1	ISOLATOR HST50 SW50 M12/M12	36079-0240
Insulator HST35 SW32 M6/M6	1	ISOLATOR HST35 SW32 M6/M6	36079-0300
Insulator HST35 SW32 M8/M8	1	ISOLATOR HST35 SW32 M8/M8	36079-0310
Insulator HST35 SW32 M10/M10	1	ISOLATOR HST35 SW32 M10/M10	36079-0320
Insulator HST40 SW36 M8/M8	1	ISOLATOR HST40 SW36 M8/M8	36079-0400
Insulator HST40 SW36 M10/M10	1	ISOLATOR HST40 SW36 M10/M10	36079-0410
Insulator HST40 SW36 M6/M6	1	ISOLATOR HST40 SW36 M6/M6	36079-0420
Insulator HST45 SW46 M6/M6	1	ISOLATOR HST45 SW46 M6/M6	36079-0500
Insulator HST45 SW46 M8/M8	1	ISOLATOR HST45 SW46 M8/M8	36079-0510
Insulator HST45 SW46 M10/M10	1	ISOLATOR HST45 SW46 M10/M10	36079-0520
Insulator HST60 SW50 M8/M8	1	ISOLATOR HST60 SW50 M8/M8	36079-0610
Insulator HST60 SW50 M10/M10	1	ISOLATOR HST60 SW50 M10/M10	36079-0620
Insulator HST60 SW50 M12/M12	1	ISOLATOR HST60 SW50 M12/M12	36079-0630
Insulator HST70 SW60 M8/M8	1	ISOLATOR HST70 SW60 M8/M8	36079-0710
Insulator HST70 SW60 M10/M10	1	ISOLATOR HST70 SW60 M10/M10	36079-0720
Insulator HST70 SW60 M12/M12	1	ISOLATOR HST70 SW60 M12/M12	36079-0740

System accessories

► Technical data, page 467



36138-0010

Terminal clamps for direct connection to NH fuse-switches and NH fuse-rails

Designation	Size	Amps	PU	Product designation	Order no.
Steel-box V-clamp	00		1	1 Satz Klemmen VST 00 Vk7 6re/rm-95sm/rm	36749-0020
PEN lug	00		1	PEN-Anschluss m. Klemme 6re/rm-95sm/rm	36768-0010
MP double-clamp	00		1	MP-Doppelanschlussch. m. Klemmen 6-95	36769-0010
MP clamp unit V2N	1 - 3		1	MP-ANSCHLUSSEINHEIT V2N 240 SM	36138-0020
V2N aluminum forged clamp	1 - 3		1	1 Satz Klemme V2N 300 rm/sm (3St.)	36148-0020
Steel-box V-clamp	1 - 3		1	Klemme E ³ VST 2x95-185sm 1SATZ (3ST)	36754-0010
Steel-box V-clamp	1 - 3		1	1 Satz Klemme VSTR 25-240 rm	36723-0010
Steel-box V-clamp, fixed upper part	1 - 3		1	Klemme E ³ VST 35-240rm 1Satz (3St)	36353-0010
Steel-box V-clamp, removable upper part	1 - 3		1	Klemme E ³ VEST 35-240rm 1Satz (3St)	36351-0010
V2-MD clamp	1 - 3		1	1 Satz Klemmen V2 MD 240sm/300rm	36298-0010
V2-MD clamp with lug	1 - 3		1	PEN-Anschluss m. Klemme V2MD 240sm/300rm	36299-0010
Claw clamp M12	1 - 3		1	ANSCHLUSSKLEMMEN 50-150 SE FÜR S6 1 SATZ	36063-0010
Bow-type flat-terminal clamp	1 - 3		1	1 SATZ BÜGEL-FLACH-DIREKT-ANSCHLUSSK.	36070-0010
Feed clamp IP2X with V2-MD clamp for copper busbars 5 – 12 mm	1 - 3		1	Einspeiseklemme IP2X V2MD 240sm/300rm	36846-0040
V2-MD insulating cap for clamp cover	1 - 3		1	ISOLIERKAPPE V2 MD	31607-0100
V2N insulating cap for clamp cover	1 - 3		1	ISOLIERKAPPE V2N „lange Variante“	31516-0100

Maintenance accessories

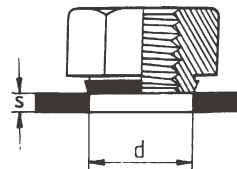
Designation	PU	Product designation	Order no.
Earthing cover E ³ size 1-3 3P AU with cable	1	Erdungsdeckel E ³ Gr.1-3 3P AU mit Kabel	36743-0010

System accessories

Clinch nuts

Busbars are fitted with clinch nuts to allow the direct attachment of NH devices.

Designation	Internal thread	d (mm)	s (mm)	PU	Order no.
Clinch nut	M6	8,0	1	1	85195-0100
Clinch nut	M8	10,0	2	1	85133-0100
Clinch nut	M10	12,5	2	1	85130-0100
Clinch nut	M12	14,5	3	1	85131-0100
Clinch nut	M16	18,5	3	1	85402-0100

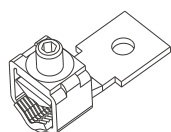


Terminal clamps for NH fuse-switches

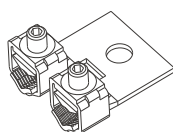
Designation	Size	Cross-section	Torque	PU	Order no.
Steel-box V-clamp	00	6 - 95 mm ² re 6 - 95 mm ² rm 6 - 95 mm ² sm 6 - 95 mm ² se	15 Nm	1	36749-0020
PEN lug	00	6 - 95 mm ² re 6 - 95 mm ² rm 6 - 95 mm ² sm 6 - 95 mm ² se	15 Nm	1	36768-0010
MP double-clamp	00	6 - 95 mm ² re 6 - 95 mm ² rm 6 - 95 mm ² sm 6 - 95 mm ² se	15 Nm	1	36769-0010
MP clamp unit V2N	1 - 3	25 - 300 mm ² rm 25 - 300 mm ² re 25 - 300 mm ² sm 25 - 300 mm ² se	35 Nm	1	36138-0020
V2N aluminum forged clamp	1 - 3	25 - 300 mm ² rm 25 - 300 mm ² re 25 - 300 mm ² sm 25 - 300 mm ² se	35 Nm	1	36148-0020
Steel-box V-clamp	1 - 3	2 x 70 - 150 mm ² rm 2 x 70 - 150 mm ² re 2 x 95 - 185 mm ² sm 2 x 95 - 240 mm ² se	40 Nm	1	36754-0010
Steel-box V-clamp	1 - 3	25 - 185 mm ² rm 25 - 95 mm ² re 50 - 240 mm ² sm 50 - 240 mm ² se	35 Nm	1	36723-0010
Steel-box V-clamp, fixed upper part	1 - 3	35 - 240 mm ² rm 35 - 300 mm ² re 50 - 240 mm ² sm 50 - 300 mm ² se	25 Nm	1	36353-0010
Steel-box V-clamp, removable upper part	1 - 3	35 - 240 mm ² rm 35 - 300 mm ² re 50 - 240 mm ² sm 50 - 300 mm ² se	25 Nm	1	36351-0010
V2-MD clamp	1 - 3	25 - 300 mm ² rm 25 - 300 mm ² re 35 - 240 mm ² sm 25 - 300 mm ² se	30 Nm	1	36298-0010
V2-MD clamp with lug	1 - 3	25 - 300 mm ² rm 25 - 300 mm ² re 35 - 240 mm ² sm 25 - 300 mm ² se	30 Nm	1	36299-0010
Claw clamp M12	1 - 3	50 - 150 mm ² se 35 - 70 mm ² rm 35 - 70 mm ² re	32 Nm	1	36063-0010
Bow-type flat-terminal clamp	1 - 3	35 - 185 mm ² rm 35 - 150 mm ² se 35 - 150 mm ² sm	25 Nm	1	36070-0010
Feed clamp IP2X with V2-MD clamp for copper busbars 5 - 12 mm	1 - 3	35 - 300 mm ² rm 35 - 300 mm ² re 35 - 240 mm ² sm 35 - 300 mm ² se	35 Nm for clamping connection 20 Nm for busbar mounting	1	36846-0040
V2-MD insulating cap for clamp cover	1 - 3			1	31607-0100
V2N insulating cap for clamp cover	1 - 3			1	31516-0100



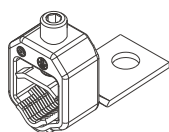
36749-0020



36768-0010



36769-0010



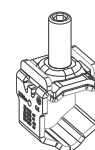
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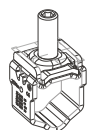
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36754-0010



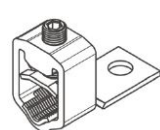
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36351-0010



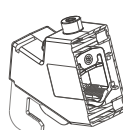
36298-0010



36299-0010



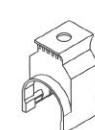
36063-0010



36846-0040



31607-0100



31516-0100

System accessories

Universal conductor terminal clamps

Description	Amps	Designation	PU	Order no.
Universal conductor terminal clamp 1.5 – 15 mm ² for 5 mm busbars	180	LEITERANSCHLUSSKL. 1,5-16 MM ² SS5	40	90265-0100
Universal conductor terminal clamp 1.5 – 15 mm ² for 10 mm busbars	180	LEITERANSCHLUSSKL. 1,5-16 MM ² SS10	40	90266-0100
Universal conductor terminal clamp 4 – 35 mm ² for 5 mm busbars	270	LEITERANSCHLUSSKL. 1,5-35 MM ² SS5	20	90267-0100
Universal conductor terminal clamp 4 – 35 mm ² for 10 mm busbars	270	LEITERANSCHLUSSKL. 1,5-35 MM ² SS10	20	90268-0100
Universal conductor terminal clamp 16 – 120 mm ² for 5 mm busbars	440	LEITERANSCHLUSSKL. 16-120 MM ² SS5	10	90269-0100
Universal conductor terminal clamp 16 – 120 mm ² for 10 mm busbars	440	LEITERANSCHLUSSKL. 16-120 MM ² SS10	10	90270-0100
Universal conductor terminal clamp 16 – 70 mm ² for 5 mm busbars	400	LEITERANSCHLUSSKL. 16-70 MM ² SS5	10	90318-0100
Universal conductor terminal clamp 16 – 70 mm ² for 10 mm busbars	400	LEITERANSCHLUSSKL. 16-70 MM ² SS10	10	90319-0100
Universal conductor terminal clamp 16 – 185 mm ² for 5 mm busbars	500	LEITERANSCHLUSSKL. 16-185 MM ² SS5	10	90328-0100
Universal conductor terminal clamp 16 – 185 mm ² for 10 mm busbars	500	LEITERANSCHLUSSKL. 16-185 MM ² SS10	10	90329-0100

System accessories

Feeding devices

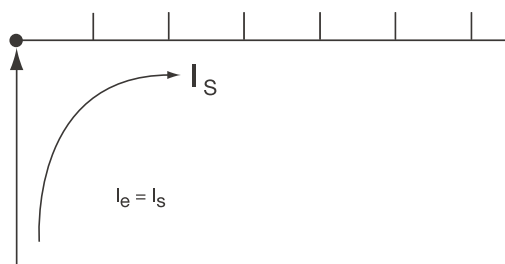
Description	Designation	PU	Weight in kg	Order no.
Feeding device for 2 devices, narrow variant	Einspeisekamm 2X SILAS NH000	4	0,245	90276-0100
Feeding device for 3 devices, narrow variant	Einspeisekamm 3X SILAS NH000	4	0,345	90276-0200
Feeding device for 4 devices, narrow variant	Einspeisekamm 4X SILAS NH000	4	0,433	90276-0300
Feeding device for 5 devices, narrow variant	Einspeisekamm 5X SILAS NH000	4	0,525	90276-0400
Feeding clamp 25 – 95 mm ² rm/sm, narrow variant	Einspeiseklemme 25-95mm ² RM/SM LANH000	3	0,096	90277-0100
Feeding device for 2 devices	Einspeisekamm 2X SILAS/IN NH00	4	0,384	90280-0100
Feeding device for 3 devices	Einspeisekamm 3X SILAS/IN NH00	4	0,450	90280-0200
Feeding device for 4 devices	Einspeisekamm 4X SILAS/IN NH00	4	0,500	90280-0300
Feeding device for 5 devices	Einspeisekamm 5X SILAS/IN NH00	4	0,550	90280-0400

Technical data acc. to DIN EN 60947-1 VDE 0660 T100 / IEC 60947-1:2004

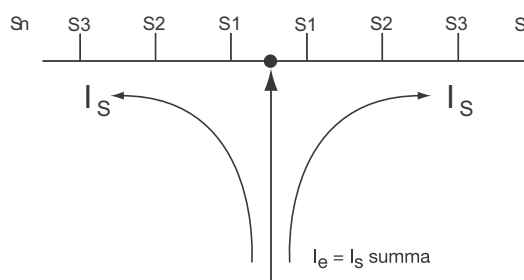
Description		
Materials	Busbar	E – Cu 58 F25
	Insulation	PC/ABS extruded – light gray RAL 7035
	End cap	PC/ABS injection-molded – light gray RAL 7035
	Terminal cover	PA66 V0 injection-molded – light gray RAL 7035
Temperature resistance	PC/ABS extruded	VST B 120 – ISO 306 = 113°C-UL94-VO/1,5
	PC/ABS injection-molded	VST B 120 – ISO 306 = 138°C – UL94-V01,6
Insulation coordination	Overvoltage category III / pollution degree 2	
Electric strength	PC / ABS	> 32 kV / mm
Impulse-withstand voltage	=> 6,0kV (1kV/mmLS)	
Minimum air gap	> 8 mm	
Minimum creepage distance	> 8,5 mm	
Maximum operating voltage	690 V AC / 440 V DC	
Rated operating voltage	415 V	
Short-circuit resistance	12,5 kA – 100 ms / 400 V	

Resistance at 35 °C ambient temperature and depending on feed point

Busbar block length (m)	Max. 1	Max. 0.3
Busbar cross-section	35 mm ²	35 mm ²
Feed connected at busbar start or end	125 A	200 A
Maximum Busbar current I _S /phase	35 mm ²	2x35 mm ²
Connecting cross-section		
Feed connected at any other position		
Maximum Busbar current I _S /phase	160 A	260 A
Connecting cross-section	2x35 mm ²	95 mm ²
Feed device for size 000	-	2 - 5
Feed device for size 00	4 – 5 fach	2 - 3



Feed connected at busbar start or end



Feed connected at any other position

Note: If the feed is connected at the center of the busbar, the total outgoing current S1 ... S_n of each busbar branch must not exceed the maximum busbar current I_S/phase stated above.

System accessories

Busbar support

Busbar supports are available for the following busbar center spacings:

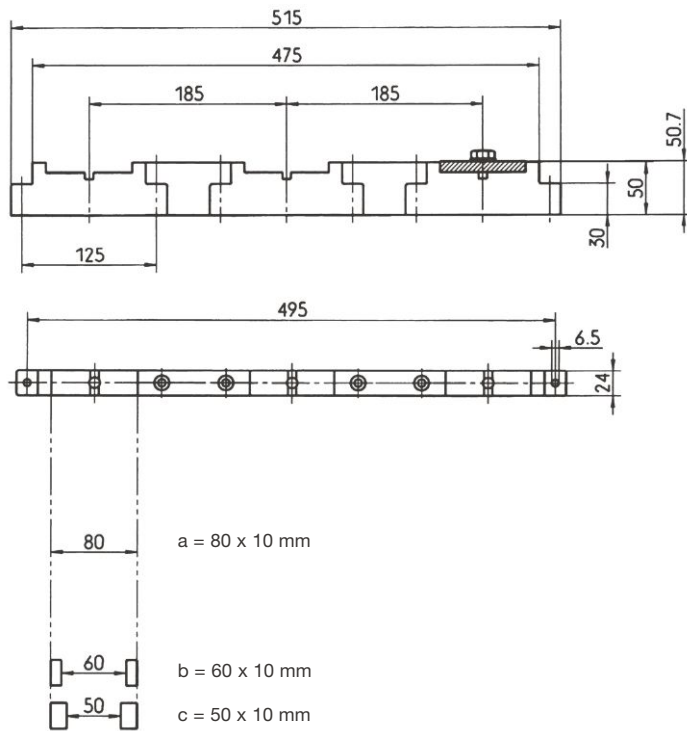
Center spacing 185 mm for currents up to 1600 A

Center spacing 100 mm for currents up to 1250 A

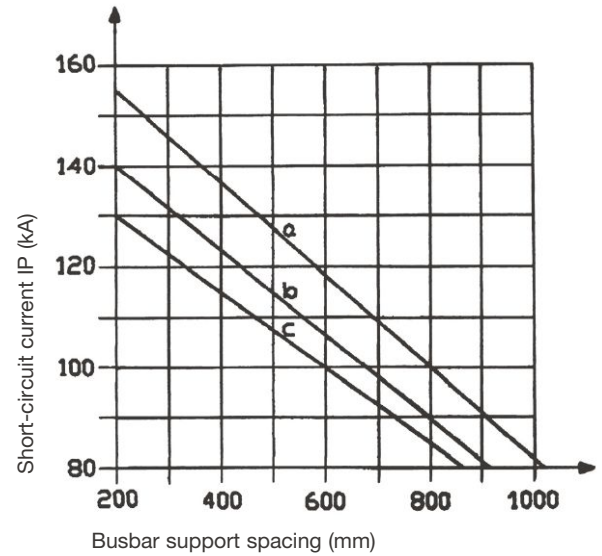
Center spacing 60 mm for currents up to 800 A

Busbar support, 1600 A; Center spacing 185 mm

Designation	Busbar dimensions	Number per busbar	Amps	PU	Order no.
Busbar support 185 mm	80 x 10 mm	-	1600	2	85331-0100
Plug-in elements	60 x 10 mm	6	1250	24	85331-0200
Plug-in elements	50 x 10 mm	6	1000	24	85331-0300



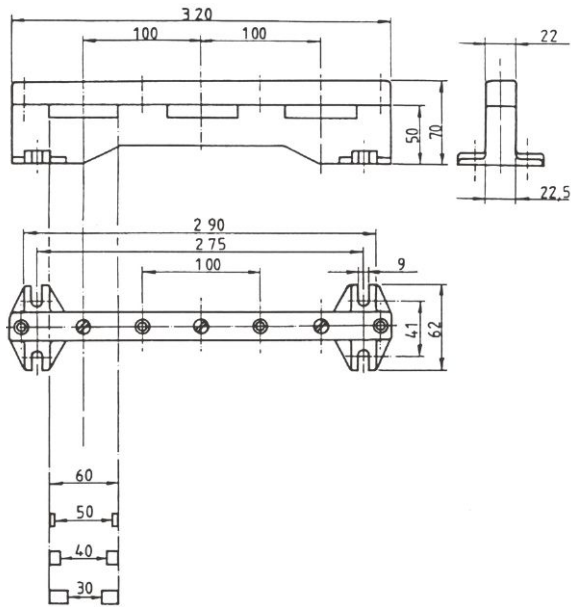
Short-circuit resistance diagram (185 mm)



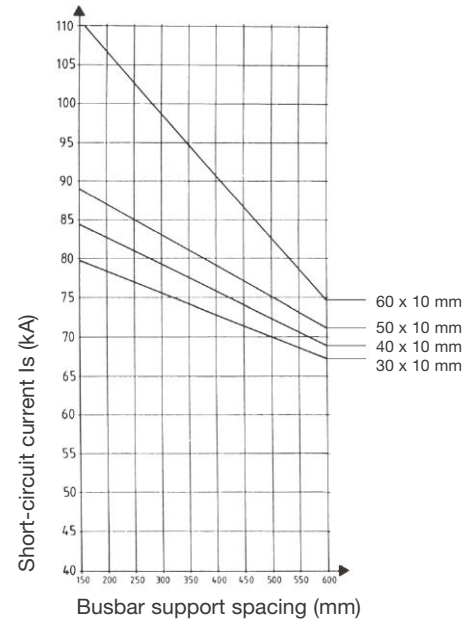
System accessories

Busbar support, 1250 A; Center spacing 100 mm

Designation	Busbar dimensions	Number per busbar	Amps	PU	Order no.
Busbar support 100 mm	60 x 10 mm	-	1250	4	85223-0100
Plug-in elements	50 x 10 mm	6	1250	24	85223-0200
Plug-in elements	40 x 10 mm	6	850	24	85223-0300
Plug-in elements	30 x 10 mm	6	675	24	85223-0400



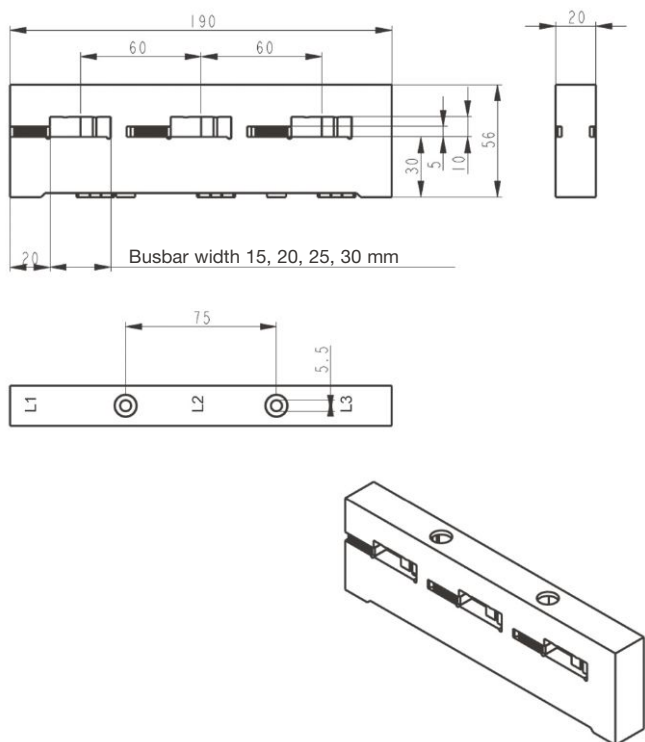
Short-circuit resistance diagram (100 mm)



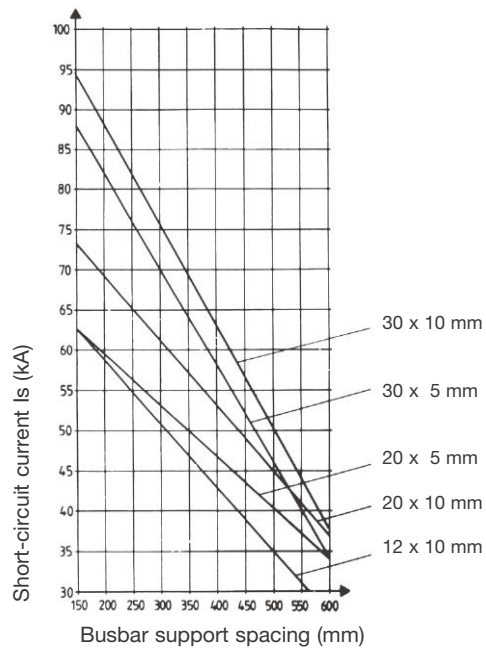
System accessories

Busbar support, 800 A; Center spacing 60 mm

Designation	Busbar dimensions	Number per busbar	Amps	PU	Order no.
Busbar support, 60 mm	15, 20, 25, 30 mm	-	800	4	85270-0600



Short-circuit resistance diagram (60 mm)



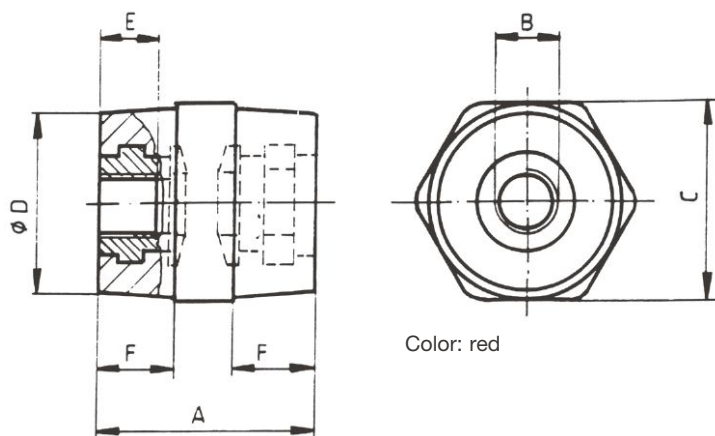
System accessories

Isolators

Material: Thermosetting unsaturated polyester, red color
 Heat-resistant according to ISO 75/A > 200 °C
 Threaded steel bushing, galvanized
 Self-extinguishing according to UL94-V0, halogen-free

Designation	A	B	C	Ø D	E	F	Rated operating voltage kV	Power-frequency withstand-voltage kV	Leakage resistance	Flexural resistance kN	Tensile resistance kN	Torsional resistance Nm	PU	Order no.
H25 SW36 M6/M6	25	M6	SW36	30	6	10	1,0	7,5	•	4,0	6,0	15	1	36072-0700
H25 SW36 M8/M8	25	M8	SW36	30	8	10	1,0	7,5	•	6,4	9,5	24,5	1	36072-0710
H30 SW30 M6/M6	30	M6	SW30	26	6	12	1,0	7,5	•	4,0	6,0	15	1	36072-0120
H30 SW30 M8/M8	30	M8	SW30	26	8	12	1,0	7,5	•	6,4	9,5	24,5	1	36072-0110
H30 SW30 M10/M10	30	M10	SW30	26	10	12	1,0	7,5	•	6,4	9,5	30	1	36072-0130
H35 SW32 M6/M6	35	M6	SW32	29,8	8	13	1,0	23	•	4,5	6,0	15	1	36072-0030
H35 SW32 M8/M8	35	M8	SW32	29,8	10	13	1,0	23	•	6,9	10,0	50	1	36072-0020
H35 SW32 M10/M10	35	M10	SW32	29,8	12	13	1,0	23	•	8,0	11,0	80	1	36072-0010
H40 SW36 M6/M6	40	M6	SW36	32	8	15	1,5	20	•	4,5	6,0	15	1	36072-0200
H40 SW36 M8/M8	40	M8	SW36	32	10	15	1,5	20	•	8,5	11,0	50	1	36072-0210
H40 SW36 M10/M10	40	M10	SW36	32	12	15	1,5	20	•	9,0	12,0	75	1	36072-0220
H45 SW46 M6/M6	45	M6	SW46	38	8	17	1,5	23	•	5,0	6,0	15	1	36072-0300
H45 SW46 M8/M8	45	M8	SW46	38	10	17	1,5	23	•	9,5	14,0	50	1	36072-0310
H45 SW46 M10/M10	45	M10	SW46	38	12	17	1,5	23	•	9,5	14,0	95	1	36072-0320
H50 SW50 M6/M6	50	M6	SW50	42	8	19	2,0	37	•	5,0	6,0	15	1	36072-0400
H50 SW50 M8/M8	50	M8	SW50	42	10	19	2,0	37	•	5,0	13,0	50	1	36072-0430
H50 SW50 M10/M10	50	M10	SW50	42	12	19	2,0	37	•	6,0	13,0	90	1	36072-0410
H50 SW50 M12/M12	50	M12	SW50	42	17	19	2,0	25	•	9,5	17,0	125	1	36072-0420
H60 SW50 M6/M6	60	M6	SW50	42	8	23,5	3,0	30	•	5,5	6,0	15	1	36072-0500
H60 SW50 M8/M8	60	M8	SW50	42	10	23,5	3,0	30	•	8,0	19,0	50	1	36072-0530
H60 SW50 M10/M10	60	M10	SW50	42	12	23,5	3,0	30	•	8,0	19,0	90	1	36072-0510
H60 SW50 M12/M12	60	M12	SW50	42	16	23,5	3,0	20	•	10,0	19,0	115	1	36072-0520
H60 SW50 M16/M16	60	M16	SW50	42	20	23,5	3,0	20	•	10,0	19,0	115	1	36072-0540
H70 SW60 M8/M8	70	M8	SW60	52	10	28	4,0	50	•	8,0	19,0	50	1	36072-0630
H70 SW60 M10/M10	70	M10	SW60	52	12	28	4,0	50	•	12,0	22,0	90	1	36072-0610
H70 SW60 M12/M12	70	M12	SW60	52	16	28	4,0	50	•	13,0	24,0	185	1	36072-0620
H70 SW60 M16/M16	70	M16	SW60	52	20	28	4,0	50	•	13,0	24,0	195	1	36072-0640

• DIN EN 60 112 / VDE 0303 T.11 – CTI 600



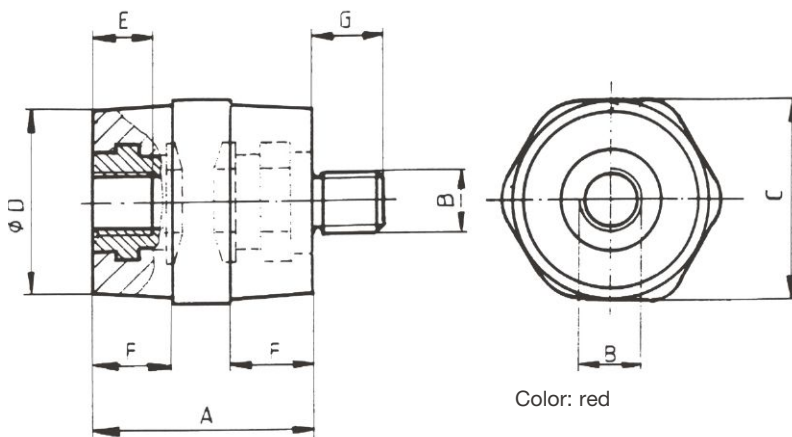
System accessories

Isolators

Material: Thermosetting unsaturated polyester, red color
 Heat-resistant according to ISO 75/A > 200 °C
 Threaded steel bushing/stud, galvanized
 Self-extinguishing according to UL94-V0, halogen-free

Designation	A	B	C	Ø D	E	F	G	Rated operating voltage kV	Power-frequency withstand-voltage kV	Leakage resistance	Flexural resistance kN	Tensile resistance kN	Torsional resistance Nm	PU	Order no.
25 SW36 M8/M8-10	25	M8	SW36	30	8	10	10	1,0	7,5	•	6,4	9,5	20	1	36079-0020
30 SW30 M6/M6	30	M6	SW30	26	6	12	8	1,0	10	•	4,0	5,0	10	1	36079-0100
30 SW30 M8/M8	30	M8	SW30	26	8	12	10	1,0	10	•	6,4	9,5	20	1	36079-0110
30 SW30 M10/M10	30	M10	SW30	26	10	12	12	1,0	10	•	6,4	9,5	30	1	36079-0120
35 SW32 M6/M6	35	M6	SW32	29,8	8	13	8	1,0	10	•	4,5	5,0	10	1	36079-0300
35 SW32 M8/M8	35	M8	SW32	29,8	10	13	10	1,0	10	•	6,9	9,5	22	1	36079-0310
35 SW 32M10/M10	35	M10	SW32	29,8	12	13	12	1,0	10	•	8,0	9,5	45	1	36079-0320
40 SW36 M6/M6	40	M6	SW36	32	8	15	8	1,5	15	•	4,5	5,0	10	1	36079-0420
40 SW36 M8/M8	40	M8	SW36	32	10	15	10	1,5	15	•	8,5	9,5	22	1	36079-0400
40 SW36 M10/M10	40	M10	SW36	32	12	15	12	1,5	15	•	9,0	9,5	45	1	36079-0410
45 SW46 M6/M6	45	M6	SW46	38	8	17	8	1,5	15	•	4,5	5,0	10	1	36079-0500
45 SW46 M8/M8	45	M8	SW46	38	10	17	10	1,5	15	•	9,5	10,0	22	1	36079-0510
45 SW46 M10/M10	45	M10	SW46	38	12	17	12	1,5	15	•	9,5	13,0	45	1	36079-0520
50 SW50 M8/M8	50	M8	SW50	42	10	19	10	2,0	15	•	5,0	10,0	22	1	36079-0210
50 SW50 M10/M10	50	M10	SW50	42	12	19	12	2,0	15	•	5,0	13,0	45	1	36079-0220
50 SW50 M12/M12	50	M12	SW50	42	17	19	17	2,0	15	•	6,0	17,0	115	1	36079-0240
60 SW50 M8/M8	60	M8	SW50	42	10	23,5	10	2,0	15	•	5,5	10,0	22	1	36079-0610
60 SW50 M10/M10	60	M10	SW50	42	12	23,5	12	2,0	15	•	8,0	13,0	45	1	36079-0620
60 SW50 M12/M12	60	M12	SW50	42	20	23,5	17	2,0	15	•	10,0	17,0	115	1	36079-0630
70 SW60 M8/M8	70	M8	SW60	52	10	28	10	2,0	15	•	8,0	10,0	22	1	36079-0710
70 SW60 M10/M10	70	M10	SW60	52	12	28	12	2,0	15	•	12,0	13,0	45	1	36079-0720
70 SW60 M12/M12	70	M12	SW60	52	20	28	17	2,0	15	•	13,0	17,0	115	1	36079-0740

• DIN EN 60 112 / VDE 0303 T.11 – CTI 600

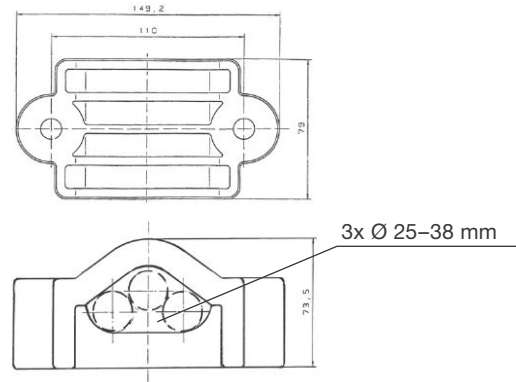
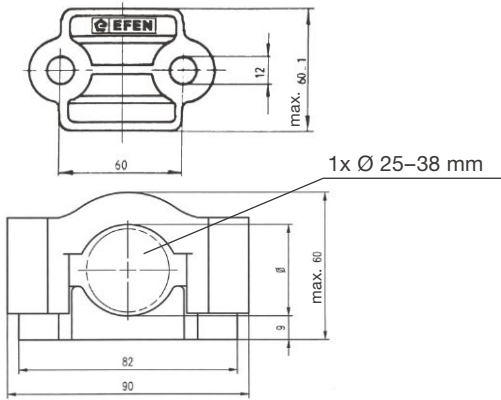


System accessories

Cable clamp made of glass-fiber-reinforced self-extinguishing halogen-free thermoplastic

Order no. 36116-0010/PU 1

Order no. 36116-0020/PU 1





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