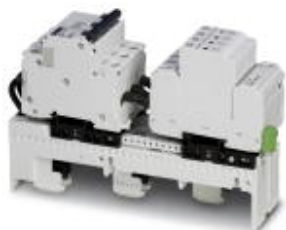


Type 2 surge arrester - VAL-CP-MOSO 60-3S-FM - 2804403

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Combination of type 2 surge protection and arrester backup fuse, with arrester monitoring, in combination with a status indicator and remote indication contact. Design: 5-conductor system (L1, L2, L3, N, PE), mounting on 60 mm system technology (power rail system)

Your advantages

- ✔ Plugs can be checked with CHECKMASTER
- ✔ For 60 mm system technology
- ✔ Tool-free mounting on 5 and 10 mm busbars
- ✔ Multi-channel type 2 surge arresters and integrated arrester backup fuses
- ✔ Signaling to monitoring systems via remote indication contact in the event of an error
- ✔ Surge-proof arrester backup fuse tailored to type 2 arresters
- ✔ Type 2 consistent plug-in surge arresters
- ✔ Disconnect device on each individual plug
- ✔ Optical, mechanical status indication for the individual arresters



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 317825
GTIN	4046356317825
Weight per Piece (excluding packing)	1,208.000 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	220 mm
Width	54 mm
Depth	134 mm

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Technical data

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 75 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %

General

IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-S
	TT
Mode of protection	L-N
	L-PE
	N-PE
Mounting type	60 mm system technology (power rail)
Color	blue-gray
	jet black RAL 9005
Housing material	PBT
	PA 6
	PA 6.6
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	Module for 60 mm system technology
Number of positions	4
Surge protection fault message	Optical, remote indicator contact

Protective circuit

Nominal voltage U_N	240/415 V AC (TN-S)
	240/415 V AC (TT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C (L-N)	350 V AC
Maximum continuous operating voltage U_C (L-PE)	350 V AC
Maximum continuous voltage U_C (N-PE)	264 V AC
Residual current I_{PE}	≤ 1 μA
Nominal discharge current I_n (8/20) μs	20 kA
Maximum discharge current I_{max} (8/20) μs (L-N)	25 kA
Maximum discharge current I_{max} (8/20) μs (L-PE)	25 kA
Maximum discharge current I_{max} (8/20) μs (N-PE)	40 kA
Follow current interrupt rating I_{fi} (N-PE)	100 A (264 V AC)
Short-circuit current rating I_{SCCR}	25 kA

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Technical data

Protective circuit

Voltage protection level U_p (L-N)	≤ 2.5 kV
Voltage protection level U_p (N-PE)	≤ 1.5 kV
Residual voltage U_{res} (L-N)	≤ 2.1 kV (at I_n)
	≤ 1.9 kV (at 10 kA)
	≤ 1.8 kV (at 5 kA)
	≤ 1.7 kV (at 3 kA)
Residual voltage U_{res} (L-PE)	≤ 2.3 kV (at I_n)
	≤ 2 kV (at 10 kA)
	≤ 1.9 kV (at 5 kA)
	≤ 1.8 kV (at 3 kA)
Residual voltage U_{res} (N-PE)	≤ 0.5 kV (at I_n)
	≤ 0.5 kV (at 10 kA)
	≤ 0.5 kV (at 5 kA)
	≤ 0.5 kV (at 3 kA)
TOV behavior at U_T (L-N)	415 V AC (5 s / withstand mode)
	440 V AC (120 min / safe failure mode)
TOV behavior at U_T (N-PE)	1200 V AC (200 ms / withstand mode)
Response time t_A (L-N)	≤ 25 ns
Response time t_A (L-PE)	≤ 100 ns
Response time t_A (N-PE)	≤ 100 ns
Max. backup fuse with branch wiring	not required

Indicator/remote signaling

Switching function	PDT contact
Operating voltage	5 V AC ... 250 V AC
	125 V DC (200 mA DC)
Operating current	5 mA AC ... 1 A AC
	1 A DC (30 V DC)
Connection method	Pluggable screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section solid	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	28 ... 16

Connection data

Connection name	PE conductor connection
Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm

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Technical data

Connection data

Stripping length	16 mm
Conductor cross section flexible	2.5 mm ² ... 16 mm ²
Conductor cross section solid	2.5 mm ² ... 25 mm ²
Conductor cross section AWG	12 ... 4
Connection name	N conductor connection
Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section flexible	2.5 mm ² ... 16 mm ²
Conductor cross section solid	2.5 mm ² ... 25 mm ²
Conductor cross section AWG	12 ... 4
Connection name	Phase conductor connection
Connection method	60 mm power rail system

Standards and Regulations

Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

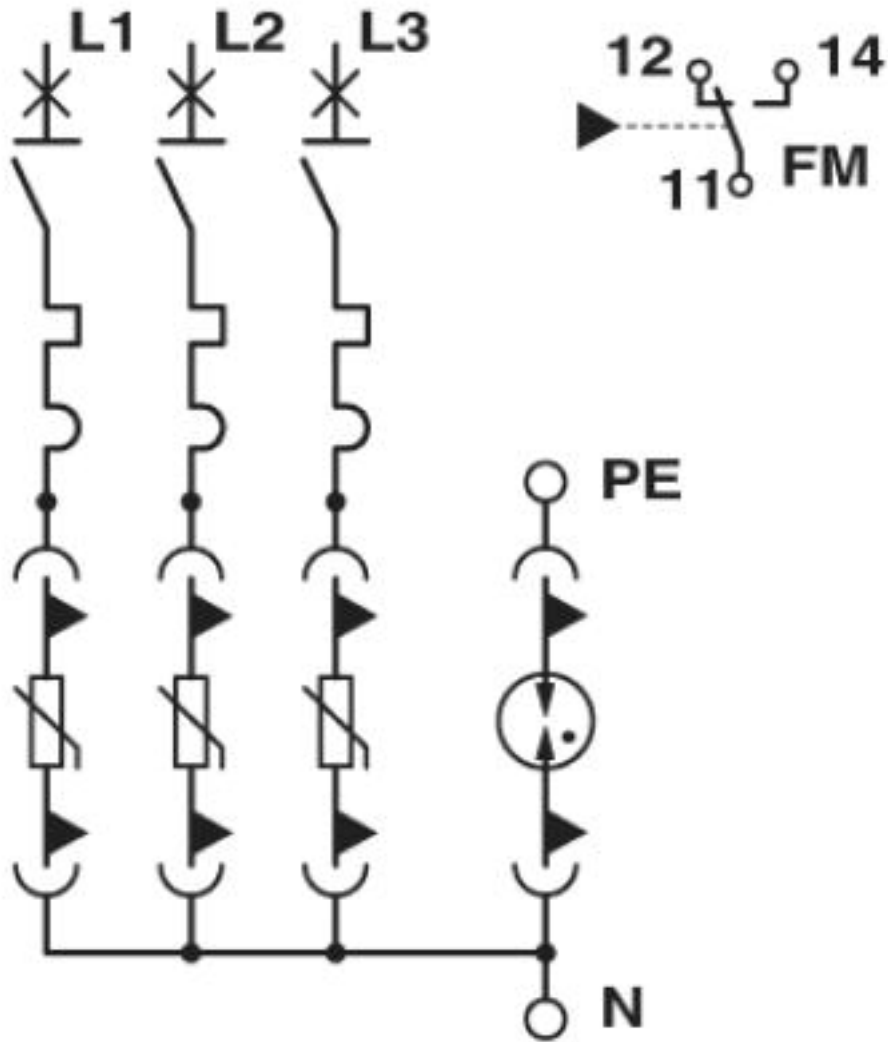
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

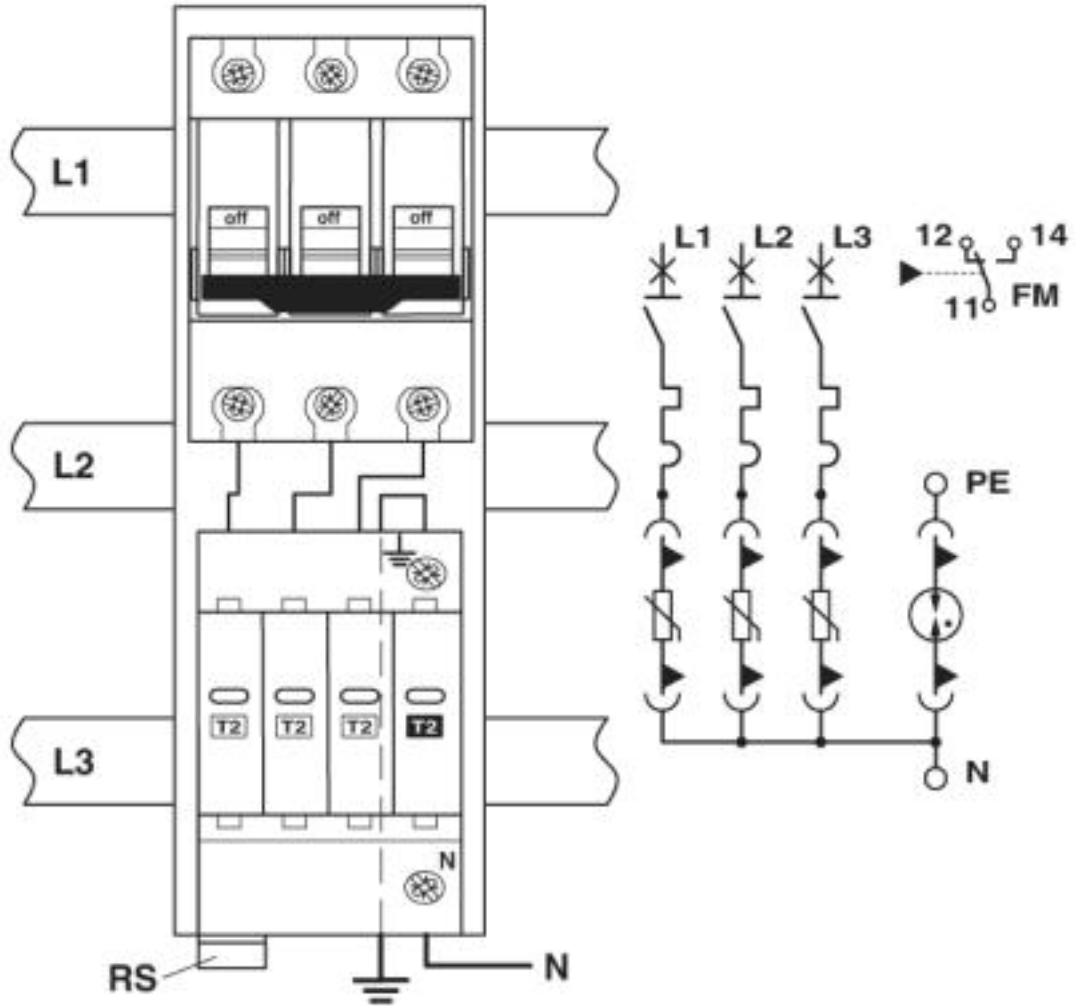
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Circuit diagram



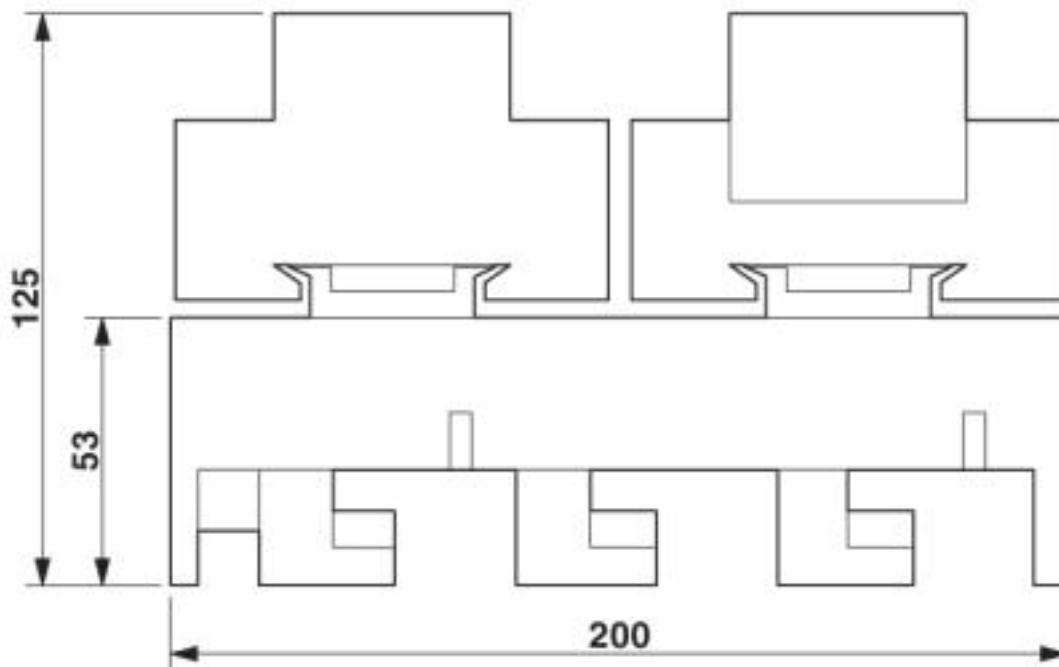
Type 2 surge arrester - VAL-CP-MOSO 60-3S-FM - 2804403

Application drawing

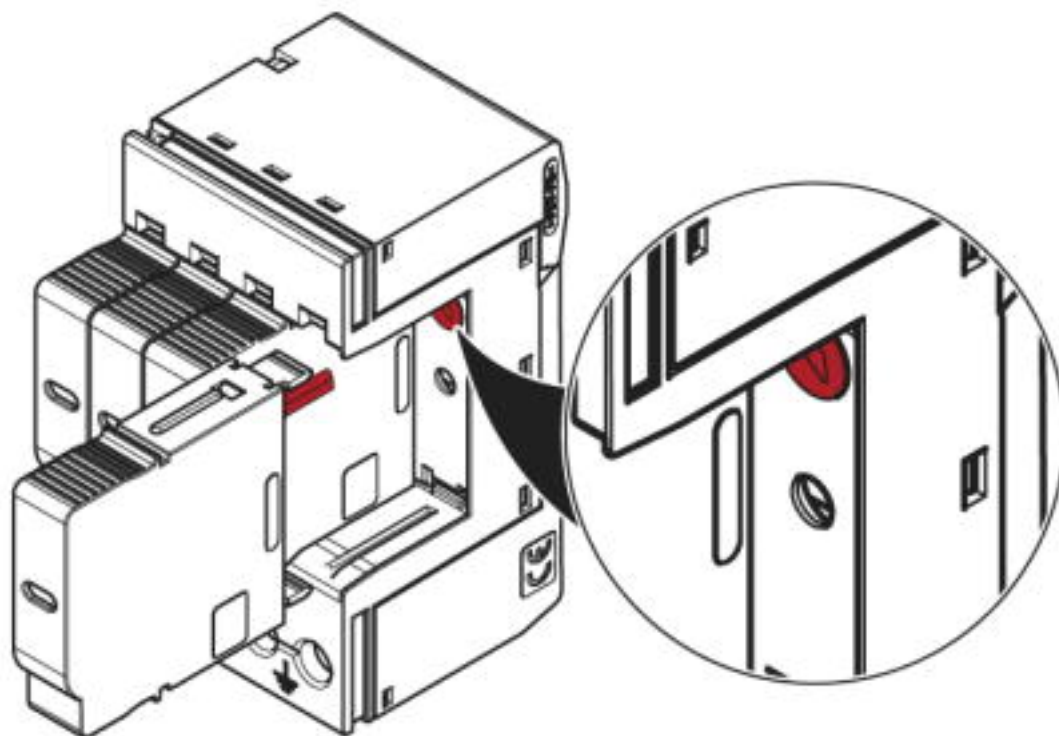


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Dimensional drawing



Schematic diagram



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Classifications

eCl@ss

eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130805
eCl@ss 8.0	27130805
eCl@ss 9.0	27130805

ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000941
ETIM 5.0	EC000941
ETIM 6.0	EC000941
ETIM 7.0	EC000941

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

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Approvals

EAC		RU C- DE.A*30.B01561
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Accessories

Accessories

Marker pen

Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

Terminal marking

Zack Marker strip, flat - ZBF 12:UNBEDRUCKT - 0809735



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 12 mm, lettering field size: 5.15 x 12.15 mm, Number of individual labels: 5

Flat zack marker sheet - ZBFM 5/WH:UNBEDRUCKT - 0803595



Flat zack marker sheet, Sheet, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, for terminal block width: 5.2 mm, lettering field size: 5 x 4.5 mm, Number of individual labels: 120

Spare parts

Type 2 surge protection plug - VAL-CP-350-ST-GY - 2882718



Replacement plug for VAL-CP surge protective device with high-capacity varistor with a low leakage current.

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Accessories

Type 2 surge protection plug - VAL-CP-N/PE-350-ST-GY - 2882734



Replacement plug for VAL-CP surge arrester with N-PE spark gap.