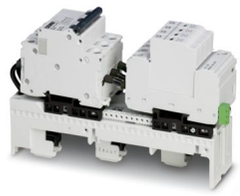
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VAL-CP-MOSO 60-3S-FM - Type 2 surge arrester

2804403

https://www.phoenixcontact.com/pc/products/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

- Tool-free mounting on 5 and 10 mm busbars
- Disconnect device on each individual plug
- Excellent level of information provided by visual status indicator and remote indication contact
- Type 2 consistent plug-in surge arresters

Commercial data

Item number	2804403
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CL1313
Catalog page	Page 75 (C-4-2019)
GTIN	4046356317825
Weight per piece (including packing)	1,375.3 g
Weight per piece (excluding packing)	1,208 g
Customs tariff number	85363090
Country of origin	DE

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Technical data

Product properties

Product type	Surge arrester
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-S
	TT
Type	Module for 60 mm system technology
Number of positions	4
Surge protection fault message	Optical, remote indicator contact

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
Nominal voltage U_N	240 V AC (230/400 V AC ... 240/415 V AC)

Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	Changeover 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 data

PE conductor connection

Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section flexible	2.5 mm² ... 16 mm²
Conductor cross section rigid	2.5 mm² ... 25 mm²
Conductor cross section AWG	12 ... 4

N conductor connection

Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm

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Conductor cross section flexible	2.5 mm² ... 16 mm²
Conductor cross section rigid	2.5 mm² ... 25 mm²
Conductor cross section AWG	12 ... 4

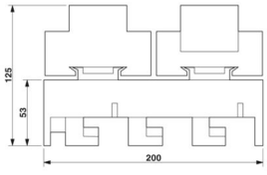
Phase conductor connection

Connection method	60 mm power rail system

Remote fault indicator contact

Connection method	Pluggable screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
Conductor cross section rigid	0.14 mm² ... 1.5 mm²
Conductor cross section AWG	28 ... 16

Dimensions

Dimensional drawing	
Width	54 mm
Height	220 mm
Depth	134 mm

Material specifications

Color	light gray (RAL 7035)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PBT, PA6, PA66
Material group	I
Housing material	PBT
	PA 6
	PA 6.6

Protective circuit

Mode of protection	L-N
	L-PE
	N-PE
Direction of action	3L-N & N-PE
Nominal voltage U_N	240/415 V AC (TN-S)
	240/415 V AC (TT)
Nominal frequency f_N	50 Hz (60 Hz)

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Maximum continuous operating voltage U_C (L-N)	350 V AC
Maximum continuous operating voltage U_C (L-PE)	350 V AC
Maximum continuous operating 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
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

Environmental and real-life conditions

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)
Permissible humidity (operation)	5 % ... 95 %

Standards and regulations

Air clearances and creepage distances

Standards/regulations	DIN VDE 0110-1 / IEC 60664-1 / IEC 61643-11

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Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

Mounting type	60 mm system technology (power rail)

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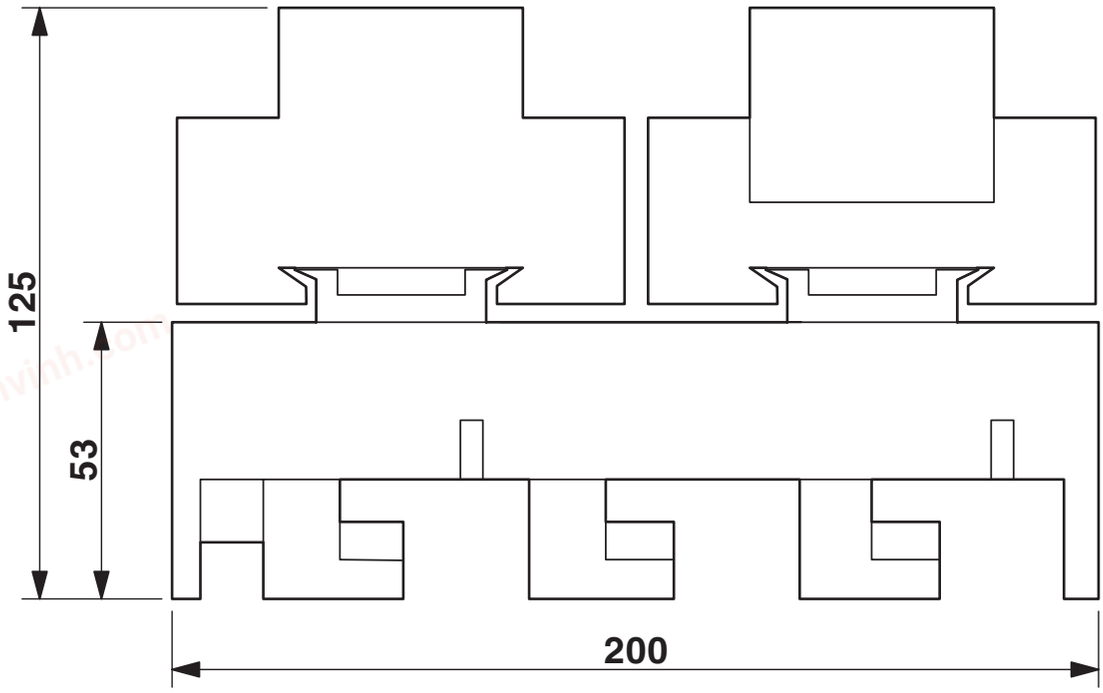
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Drawings

Dimensional drawing



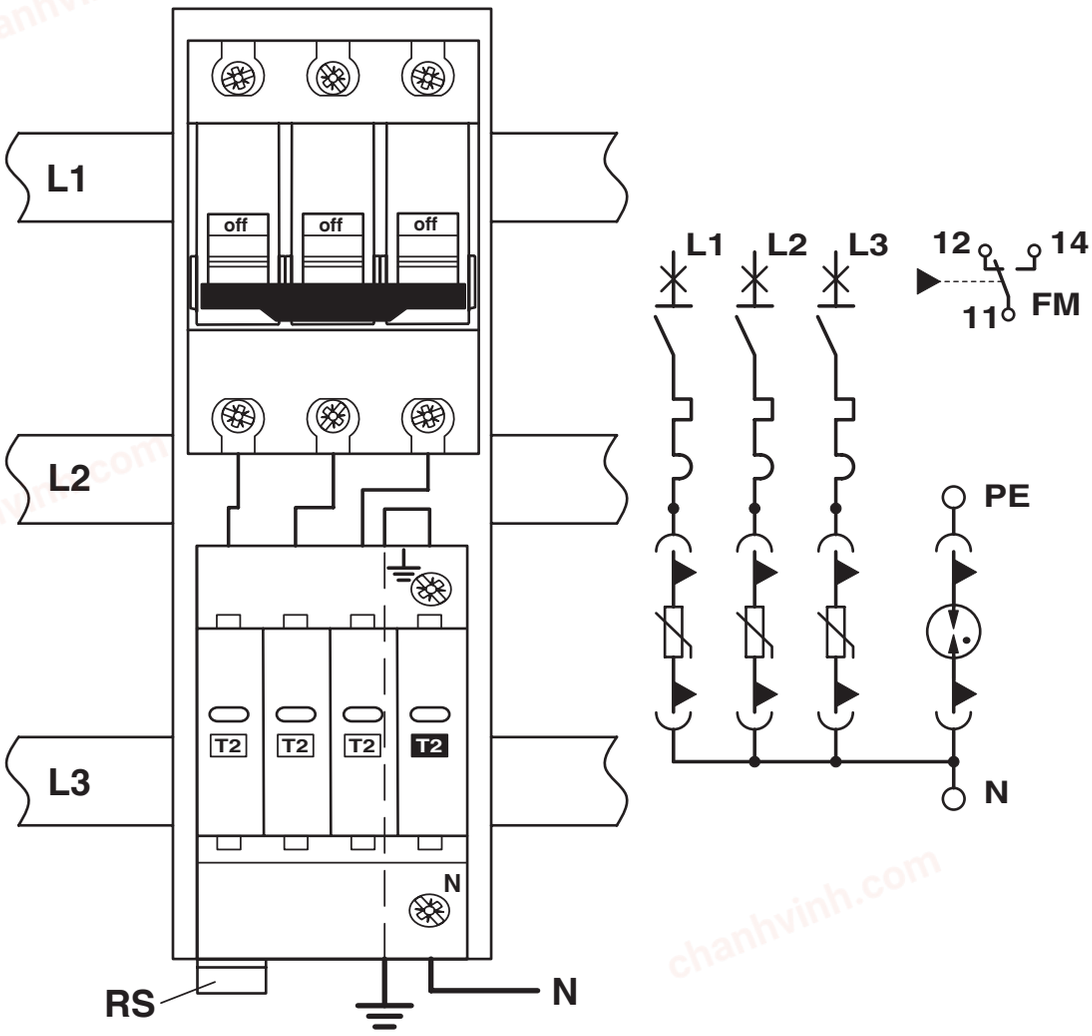
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Application drawing



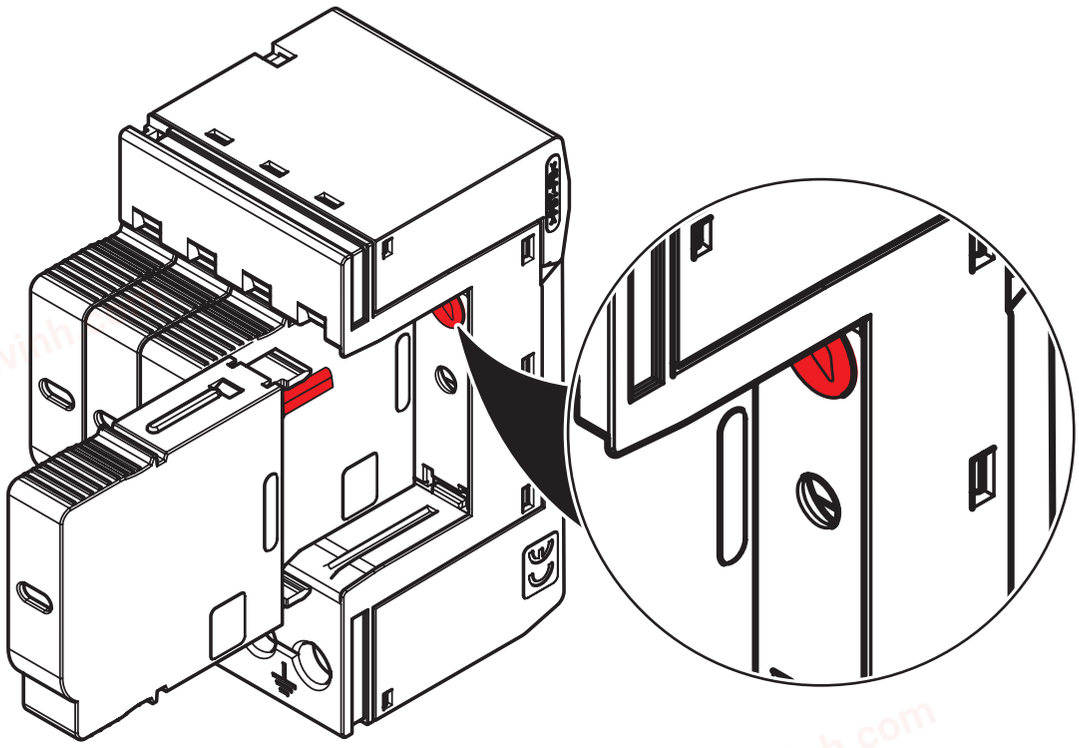
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Schematic diagram



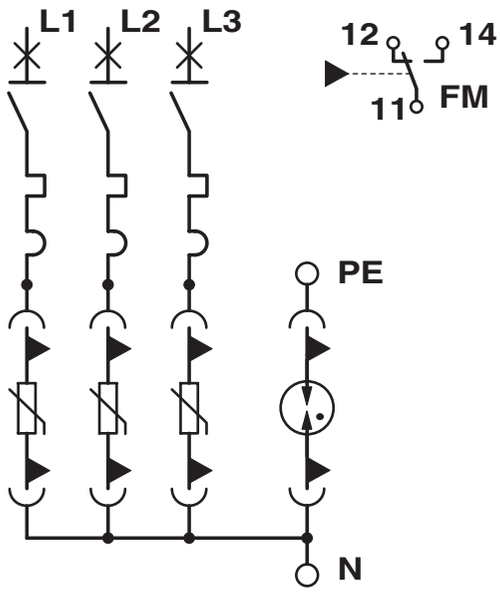
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Circuit diagram



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/2804403

EAC
Approval ID: RU C-DE.*09.B.00169

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Classifications

ECLASS

ECLASS-13.0	27171202

ETIM

ETIM 9.0	EC000941

UNSPSC

UNSPSC 21.0	39121600

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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