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Especialistas en Automatización

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## Type 2 surge arrester - VAL-CP-MCB-1S-350/40/FM - 2882763

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Combination of type 2 surge protection and arrester backup fuse, with monitoring of arrester and arrester backup fuse, in combination with a remote indication contact. Design: 3-conductor system (L1, N, PE), mounting on NS 35 DIN rail

### Why buy this product

- Plugs can be checked with CHECKMASTER
- Signaling to monitoring systems via remote indication contact in the event of an error
- Combinations of type 2 arresters with integrated arrester backup fuse
- Overload of the surge protection results in all-pos. disconnection from the mains
- Surge-proof arrester backup fuse
- Type 2 consistent plug-in surge arresters
- Optical, mechanical status indication for the individual arresters



### Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 175821

### Technical data

#### Dimensions

Height	101 mm
Width	72 mm
Depth	76 mm
Horizontal pitch	4 Div.

#### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))

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## Technical data

### Ambient conditions

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

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012
	IEC 60364-4-443
	IEC 60364-5-534
IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-S
	TT
Number of ports	One
SPD design	Combination type
Mode of protection	L-N
	L-PE
	N-PE
Mounting type	DIN rail: 35 mm
Color	light grey RAL 7035
Housing material	PBT-FR
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	2
Surge protection fault message	Optical, remote indicator contact

### Protective circuit

Nominal voltage $U_N$	240 V AC (TN-S)
	240 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 $I_{PE}$	$\leq 1 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$	20 kA
Maximum discharge current $I_{max}$ (8/20) $\mu s$	30 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)	$\leq 2.5$ kV
Voltage protection level $U_p$ (N-PE)	$\leq 1.7$ kV
Residual voltage $U_{res}$ (L-N)	$\leq 2.3$ kV (at $I_n$ )

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### Technical data

#### Protective circuit

	≤ 1.6 kV (at 10 kA)
	≤ 1.3 kV (at 5 kA)
	≤ 1 kV (at 3 kA)
Residual voltage $U_{res}$ (L-PE)	≤ 2.5 kV (at $I_n$ )
	≤ 2 kV (at 10 kA)
	≤ 1.5 kV (at 5 kA)
	≤ 1.1 kV (at 3 kA)
Residual voltage $U_{res}$ (N-PE)	≤ 1.2 kV (at 10 kA)
	≤ 0.8 kV (at 5 kA)
	≤ 0.5 kV (at 4 kA)
	≤ 0.3 kV (at 3 kA)
Front of wave sparkover voltage at 6 kV (1.2/50) $\mu$ s (N-PE)	≤ 1.7 kV
TOV behavior at $U_T$ (L-N)	415 V AC (5 s / withstand mode)
	457 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 $t_A$ (N-PE)	≤ 100 ns
Max. backup fuse with V-type through wiring	40 A (gG)

#### Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	PDT contact
Operating voltage	250 V AC
	250 V DC
Operating current	1 mA AC ... 2 A
	1 mA DC ... 0.05 A
Connection method	Pluggable screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16

#### Connection data

Connection name	Connection protective circuit
Connection method	Screw connection
Conductor cross section flexible	4 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Conductor cross section solid	4 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section AWG	18 ... 2
Tightening torque	3.5 Nm

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## Technical data

### Connection data

Stripping length	14 mm
Connection name	Protective ground connection
Connection method	Screw connection
Conductor cross section flexible	2.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section solid	2.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Conductor cross section AWG	12 ... 4
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm

## Classifications

### eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130805
eCl@ss 7.0	27130805
eCl@ss 8.0	27130806
eCl@ss 9.0	27130806

### ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000941
ETIM 5.0	EC000941

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Approvals

### Approvals

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#### Approvals

KEMA-KEUR / VDE Zeichengenehmigung / ÖVE / EAC / CCA / IECCEB Scheme

## Type 2 surge arrester - VAL-CP-MCB-1S-350/40/FM - 2882763

### Approvals

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Ex Approvals


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Approvals submitted

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### Approval details


KEMA-KEUR 

VDE Zeichengenehmigung 

ÖVE 

EAC

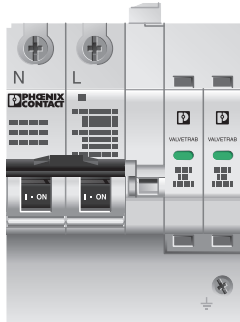
CCA

IECEE CB Scheme 

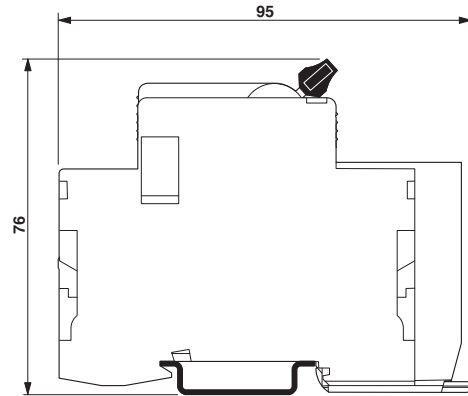
### Drawings

# Type 2 surge arrester - VAL-CP-MCB-1S-350/40/FM - 2882763

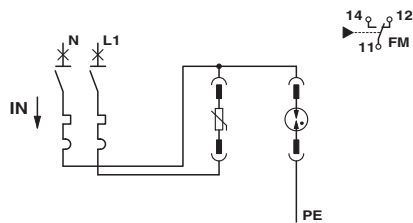
Product drawing



Dimensional drawing



Circuit diagram



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Product	Code	Reference	Product link
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