

Lightning/surge arrester type 1/2 - VAL-MS-T1/T2 335/12.5/4+0-FM - 2800644

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Plug-in varistor-based lightning arrester for 3-phase TN-S power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), for Lightning Protection Levels III and IV, with remote indication contact.

Product Features

- ✓ Plugs can be checked with CHECKMASTER
- ✓ With or without floating remote indication contact
- ✓ Secure hold of plugs in the event of high lightning current loads and strong vibrations thanks to new latching
- ✓ Thermal disconnect device for each individual plug
- ✓ Mechanical coding of all slots
- ✓ Optical, mechanical status indication for the individual arresters



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	720.0 GRM
Custom tariff number	85363030
Country of origin	Germany

Technical data

Dimensions

Height	99 mm
Width	71.2 mm
Depth	77.5 mm
Horizontal pitch	4 Div.

Ambient conditions

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Technical data

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C

General

IEC power supply system	TN-C
	TN-S
Housing material	PBT / PA
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	EN 60664-1
	EN 61643-11
Mounting type	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible
Number of positions	4
Surge protection fault message	Optical, remote indicator contact
Direction of action	4L-PEN

Protective circuit

IEC test classification	I / II
	T1 / T2
EN type	T1 / T2
Nominal voltage U_N	240 V AC (230/400 V AC ... 240/415 V AC)
Maximum continuous operating voltage U_C	335 V AC
Maximum continuous operating voltage U_C (L-PE)	335 V AC
Maximum continuous operating voltage U_C (N-PE)	335 V AC
U_T (TOV-proof)	415 V AC (5 s/L-PEN)
Nominal frequency f_N	50 Hz (60 Hz)
Rated load current I_L	80 A (with serial 16mm ² through wiring)
Residual current I_{PE}	≤ 0.8 mA (per phase)
Standby power consumption P_C	≤ 1.072 VA (per phase)
Max. discharge current I_{max} (8/20) μs maximum (L-PE)	150 kA (3 x L)
	50 kA
Max. discharge current I_{max} (8/20) μs maximum (N-PE)	50 kA
Nominal discharge current I_n (8/20) μs (L-PE)	37.5 kA (3 x L)
	12.5 kA
Nominal discharge current I_n (8/20) μs (N-PE)	12.5 kA

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Protective circuit

Impulse discharge current (10/350) μ s charge	25 As
Impulse discharge current (10/350)# μ s, specific energy	625 kJ/ Ω
Impulse discharge current (10/350)# μ s, peak value I_{imp}	50 kA
Impulse discharge current (10/350) μ s charge	6.25 As
Impulse discharge current (10/350)# μ s, specific energy	39 kJ/ Ω
Impulse discharge current (10/350)# μ s, peak value I_{imp}	12.5 kA (1-pos.)
Voltage protection level U_p	≤ 1.2 kV
Voltage protection level U_p (L-PE)	≤ 1.2 kV
	≤ 1.6 kV (30 kA - 8/20 μ s)
Voltage protection level U_p (N-PE)	≤ 1.2 kV
	≤ 1.6 kV (30 kA - 8/20 μ s)
Residual voltage (L-PE)	≤ 1.1 kV (at 10 kA)
	≤ 1 kV (at 5 kA)
	≤ 0.9 kV (at 3 kA)
	≤ 1.2 kV
Residual voltage (N-PE)	≤ 1.2 kV
	≤ 1.1 kV (at 10 kA)
	≤ 1 kV (at 5 kA)
	≤ 0.9 kV (at 3 kA)
Response time	≤ 25 ns
Response time (L-PEN)	≤ 25 ns
Max. backup fuse with branch wiring	160 A (gL/gG)
Max. backup fuse with V-type through wiring	80 A (gL/gG / with 16 mm ²)
Short-circuit resistance I_p with max. backup fuse (effective)	25 kA _{rms}

Connection, protective circuit

Connection method	Screw connection
Connection type IN	Biconnect screw terminal block
Connection type OUT	Biconnect screw terminal block
Connection method	Biconnect terminal block
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section stranded min.	1.5 mm ²
Conductor cross section stranded max.	25 mm ²
Conductor cross section solid min.	1.5 mm ²

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Connection, protective circuit

Conductor cross section solid max.	35 mm ²
Conductor cross section AWG/kcmil min.	15
Conductor cross section AWG/kcmil max	2

Remote indicator contact

Connection name	Remote fault indicator contact
Switching function	PDT, 1-pos.
Connection method	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section stranded min.	0.14 mm ²
Conductor cross section stranded max.	1.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max	16
Maximum operating voltage U _{max.} AC	250 V AC
Max. operating current I _{max.}	1.5 A AC (250 V AC)
	1.5 A DC (30 V DC)

Standards and Regulations

Standards/regulations	IEC 61643-1 2005
	EN 61643-11/A11 2007

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	27130802
eCl@ss 7.0	27130802
eCl@ss 8.0	27130802

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Classifications

ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000381
ETIM 5.0	EC000381

UNSPSC

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

Approvals

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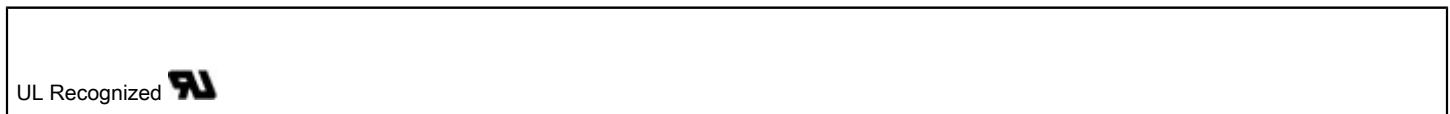
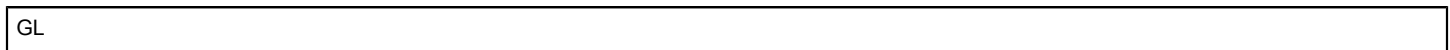
Approvals

KEMA-KEUR / GL / UL Recognized / cUL Recognized / ÖVE / CCA / IECCEB Scheme / cULus Recognized

Ex Approvals

Approvals submitted

Approval details



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Approvals

cUL Recognized

ÖVE

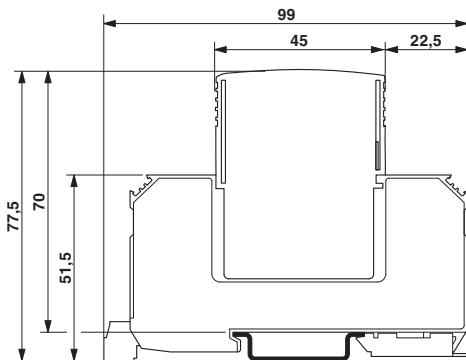
CCA

IECEE CB Scheme

cULus Recognized

Drawings

Dimensioned drawing



Circuit diagram

