

VAL-MS-T1/T2 335/12.5/3+0


Order No.: 2800189



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Universal varistor-based plug-in lightning/surge arrester for 3-phase power supply networks with common N and PE (4-conductor system: L1, L2, L3, PEN).



Commercial data	
EAN	 4 046356 518604
Pack	1 pcs.
Customs tariff	85363030
Gross weight in pieces	0.5278 kg
Catalog page information	Page 35 (C-6-2013)

Product notes

WEEE/RoHS-compliant since:
03.07.2009



Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation at <http://www.download.phoenixcontact.com>. The General Terms and Conditions of Use apply to Internet downloads.

Technical data

Dimensions

Height	90 mm
Width	53.4 mm
Depth	77.5 mm
Horizontal pitch	3 Div.

Ambient conditions

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

General

IEC power supply system	TN-C
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	3
Surge protection fault message	Optical
Direction of action	3L-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-PEN)	335 V AC
U_T (TOV-proof)	415 V AC (5 s)
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}	≤ 5 µA (per phase)
Standby power consumption P_C	≤ 268 mVA
Max. discharge current I_{max} (8/20) µs maximum (L-PEN)	150 kA (3 x L) 50 kA
Nominal discharge current I_n (8/20) µs (L-PEN)	37.5 kA (3 x L) 12.5 kA
Impulse discharge current (10/350) µs charge	18.75 As

Impulse discharge current (10/350)□μs, specific energy	352.00 kJ/Ω
Impulse discharge current (10/350)□μs, peak value I_{imp}	37.5 kA
Impulse discharge current (10/350) μs charge	6.25 As
Impulse discharge current (10/350)□μs, specific energy	39.00 kJ/Ω
Impulse discharge current (10/350)□μs, peak value I_{imp}	12.5 kA (1-pos.)
Voltage protection level U_p	≤ 1.2 kV
Voltage protection level U_p (L-PEN)	≤ 1.2 kV
	≤ 1.6 kV (30 kA - 8/20μs)
Residual voltage (L-PEN)	≤ 1.1 kV
	≤ 1 kV (at 5 kA)
	≤ 0.9 kV (at 3 kA)
	≤ 1.2 kV
Response time	≤ 25 ns
Response time (L-PEN)	≤ 25 ns
Max. required backup fuse with branch wiring	160 A (gL/gG)
Max. required 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

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
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

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

Certificates



Certification

cULus Recognized, KEMA-KEUR, ÖVE, GL

Certifications applied for:

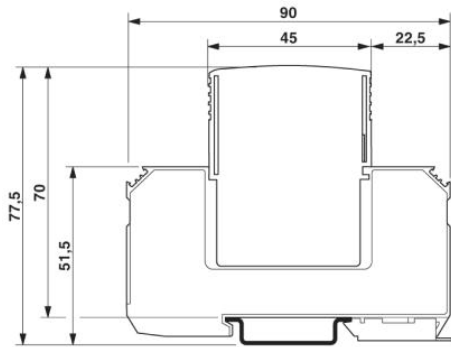
Certification Ex:

Accessories

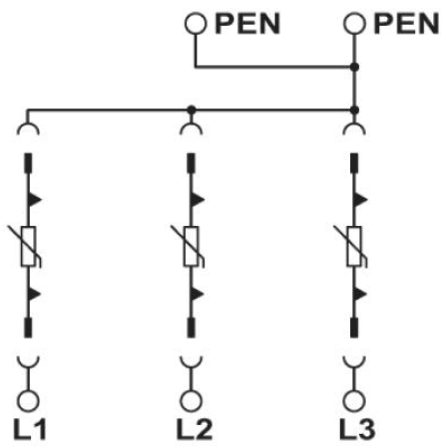
Item	Designation	Description
General		
2749880	DK-BIC-35	Feed-through terminal block for VAL and FLT applications
Marking		
1051993	B-STIFT	Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm
2749589	ZBN 18,LGS:ERDE	Marker for terminal blocks, Strip, white, labeled, Horizontal: Grounding symbol, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm
2749576	ZBN 18,LGS:L1-N,ERDE	Marker for terminal blocks, Strip, white, labeled, Horizontal: L1, L2, L3, N, GND, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm
0800763	ZBN 18:SO/CMS	Zack marker strip, white, for terminal block width: 18 mm
2809128	ZBN 18:UNBEDRUCKT	Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

Drawings

Dimensioned drawing



Circuit diagram



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