

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

Order No.: 2800188

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Universal varistor-based plug-in lightning arrester for 3-phase power supply networks with common N and PE (4-conductor system: L1, L2, L3, PEN), for Lightning Protection Levels III and IV, with remote indication contact.



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Commercial data

EAN	4046356518598
Pack	1 pcs.
Customs tariff	85363030
Weight/Piece	0.5597 KG
Product key	07004
country of origin	DE
Catalog page information	Page 197 (NTK-2010)

Technical data**Standards**

Housing material	PBT / PA
Inflammability class acc. to UL 94	V0
Color	black
Standards for air and creepage distances	EN 60664-1 EN 61643-11
Degree of protection	IP20
Mounting type	DIN rail 35 mm

Design	DIN rail module, two-section, divisible
Number of positions	3
Ambient temperature (operation)	-40 °C ... 80 °C
Message surge protection faulty	Optical, remote indicator contact
Direction of action	3L-PEN
Width	53.40 mm
Height	77.50 mm
Length	99.00 mm
Pitch unit	3 Div.
Protective circuit	
IEC category	I, II
	T1, T2
EN type	T1, T2
Nominal voltage U_N	240 V AC (230/400 V AC ... 240/415 V AC)
Arrester rated voltage U_c	335 V AC
Arrester rated 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	80 A (with serial 16mm ² through wiring)
Discharge current to PE at U_c	≤ 5 μA (Per phase)
Max. discharge surge current I_{max} (8/20) μs maximum (L-PEN)	150 kA (all channels)
	50 kA (per channel)
Nominal discharge surge current I_n (8/20) μs (L-PEN)	37.5 kA (all channels)
	12.5 kA (per channel)
Lightning test current (10/350) μs, charge	18.75 As
Lightning test current (10/350) μs, specific energy	352.00 kJ/Ω
Lightning test current (10/350) μs, peak value I_{imp}	37.5 kA
Lightning test current (10/350) μs, charge	6.25 As
Lightning test current (10/350) μs, specific energy	39.00 kJ/Ω
Lightning test current (10/350) μs, peak value I_{imp}	12.5 kA (1-pos.)
Protection level U_p	≤ 1.2 kV
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-N)	≤ 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 _{CC} with max. backup fuse (effective)	25 kA

Connection, protective circuit

Type of connection	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

Connection name	Remote fault indicator contact
Switching function	PDT, 1-pos.
Type of connection	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 (250 V AC)
	1.5 A (30 V DC)

Environmental conditions

Standards/regulations	IEC 61643-1
	DIN EN 61643-11/A11

Certificates / Approvals



Certification

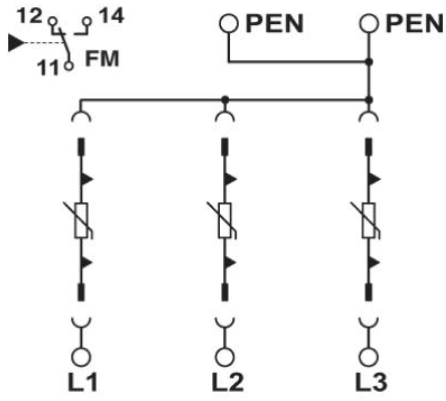
CB, CCA, KEMA, OEVE

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	Marking labels, printed horizontally, strips with 5 labels, GND (grounding symbol), color: White
2749576	ZBN 18,LGS:L1-N,ERDE	Marker labels, printed horizontally, strips with 5 labels, L1, L2, L3, N, GND, color: white
0800763	ZBN 18:SO/CMS	Marker labels, 5-section, special printing, labeled according to customer requirements (Please specify the required marking with order), for terminal width: 17.5 mm, color: White
2809128	ZBN 18:UNBEDRUCKT	Unprinted marker labels, strips with 5 labels for individual labeling with M-PEN or CMS system, for terminal block width: 17.5 mm, color: White

Diagrams/Drawings

Circuit diagram



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