

VAL-MS 580/3+0-FM

Order No.: 2920447



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Surge arrester for 4-conductor power supply systems (L1, L2, PEN), consisting of a base element with remote indication contact and protective connectors, for mounting on NS 35.



Commercial data	
GTIN (EAN)	 4 046356 163569
Note	Made-to-order
sales group	J022
Pack	1 pcs.
Customs tariff	85363030
Catalog page information	Page 31 (TT-2009)

Product notes

WEEE/RoHS-compliant since:
01/01/2008



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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 fault	Optical, remote indicator contact
Direction of action	3L-PEN
Width	53.40 mm
Height	65.50 mm
Length	99.00 mm
Pitch unit	3 Div.

Protective circuit

IEC category	II
	T2
EN type	T2
Nominal voltage U_N	400 V AC (400/690 V AC TN-C)
	≤ 500 V AC (IT)
Arrester rated voltage U_C	580 V AC
Arrester rated voltage U_C (L-PEN)	580 V AC
U_T (TOV-proof)	690 V AC (5 s/L-PEN)
Nominal frequency f_N	50 Hz (60 Hz)
Ground conductor current I_{PE}	≤ 250 μ A
Standby power consumption P_C	≤ 0.45 VA (≤ 20 mW)
Max. discharge surge current I_{max} (8/20) μ s	30 kA
Max. discharge surge current I_{max} (8/20) μ s maximum (L-PEN)	90 kA (all channels)
	30 kA
Nominal discharge surge current I_n (8/20) μ s (L-PEN)	45 kA (all channels)
	15 kA
Protection level U_p	≤ 2.5 kV
Protection level U_p (L-PEN)	≤ 2.5 kV

Residual voltage	$\leq 2.5 \text{ kV}$
	$\leq 2.3 \text{ kV (at 10 kA)}$
	$\leq 2.1 \text{ kV (at 5 kA)}$
	$\leq 1.9 \text{ kV (at 3 kA)}$
Residual voltage (L-PEN)	$\leq 2.5 \text{ kV}$
	$\leq 2.3 \text{ kV (at 10 kA)}$
	$\leq 2.1 \text{ kV (at 5 kA)}$
	$\leq 1.9 \text{ kV (at 3 kA)}$
Response time	$\leq 25 \text{ ns}$
Response time (L-N)	$\leq 25 \text{ ns}$
Max. required backup fuse with branch wiring	125 A (gL / gG)
Short-circuit resistance I_p 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
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 contact
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 AC (250 V AC)
	1.5 A DC (30 V DC)

Standards

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

Certificates / Approvals



Certification

CB, CCA, CUL, GOST, KEMA, OEVE, UL

Accessories

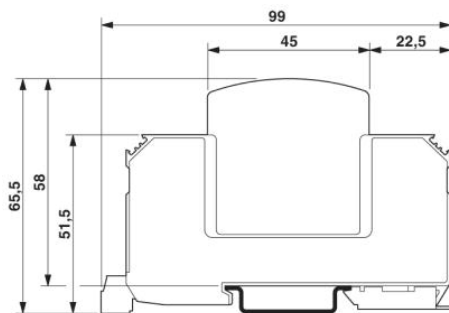
Item	Designation	Description
Bridges		
2809241	MPB 18/3- 6	Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 6-pos.
2809254	MPB 18/3- 9	Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 9-pos.
2818339	MPB F200X16/ 1GS	Wiring bridge flexible, diameter 16 mm ² , with a fork-type cable lug on one side, length: 200 mm
2818342	MPB F400X16/ 1GS	Wiring bridge flexible, diameter 16 mm ² , with a fork-type cable lug on one side, length: 400 mm
2818355	MPB F600X16/ 1GS	Wiring bridge flexible, diameter: 16 mm ² , with a fork-type cable lug on one side, length: 600 mm
General		
2749880	DK-BIC-35	Feed-through terminal block for VAL and FLT applications

Marking

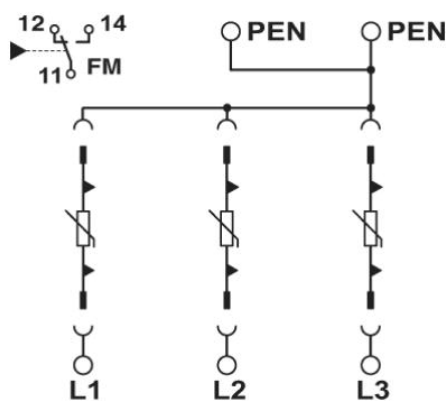
1051993	B-STIFT	Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm
2749589	ZBN 18,LGS:ERDE	Marking labels, printed horizontally, strips with 5 labels, GND (grounding symbol), color: White
2749576	ZBN 18,LGS:L1-N,ERDE	Marker labels, printed horizontally, 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

Dimensioned drawing



Circuit diagram



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