

# VAL-MS 1000DC/1+V-FM

Order No.: 2804490



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2804490>

Surge arrester for 2-pos. without fuse grounded DC voltage systems 1000 V DC, for DIN rail mounting, 2-pos. base element (L+, L-, ground) with remote indication contact, three pluggable temperature-monitored varistors, status message on each connector.



Commercial data	
GTIN (EAN)	4 046356 329071
Note	Made-to-order
sales group	J022
Pack	1 pcs.
Customs tariff	85363010
Catalog page information	Page 63 (TT-2011)

#### 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	DIN EN 60664-1
	DIN EN 61643-11
Degree of protection	IP20
Mounting type	DIN rail: 35 mm
Design	DIN rail module, two-section, divisible
Number of positions	2
Ambient temperature (operation)	-40 °C ... 80 °C
Message: Surge protection fault	Optical, remote indicator contact
Direction of action	(L+)-(L-)
Width	35.60 mm
Height	65.50 mm
Length	99.00 mm
Pitch unit	2 Div.

#### Protective circuit

IEC category	II
EN type	T2
Nominal voltage $U_N$	1000 V DC (Non-load voltage $U_{oc}$ )
Arrester rated voltage $U_C$	1000 V DC
Nominal load current $I_L$	$\leq 80$ A DC
Ground conductor current $I_{PE}$	$\leq 20$ $\mu$ A
Standby power consumption $P_C$	$\leq 20$ mW
Max. discharge surge current $I_{max}$ (8/20) $\mu$ s	30 kA
Nominal discharge surge current $I_n$ (8/20) $\mu$ s	15 kA
Protection level $U_p$	$\leq 5$ kV
Protection level $U_p$ (L+) - (L-)	$\leq 5$ kV
Residual voltage	$\leq 5$ kV
	$\leq 4.5$ kV (at 10 kA)
	$\leq 4$ kV (at 5 kA)
Residual voltage (L+) - (L-)	$\leq 5$ kV
	$\leq 4.5$ kV (at 10 kA)
	$\leq 4$ kV (at 5 kA)
Response time	$\leq 25$ ns

#### Connection, protective circuit

Connection method	Screw connection
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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 <sup>2</sup>
Conductor cross section stranded max.	25 mm <sup>2</sup>
Conductor cross section solid min.	1.5 mm <sup>2</sup>
Conductor cross section solid max.	35 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	15
Conductor cross section AWG/kcmil max	2

#### Remote indicator contact

Switching function	PDT, 1-pos.
Connection method	MC 1,5/3
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max	16
Maximum operating voltage U <sub>max.</sub> AC	250 V AC
Max. operating current I <sub>max</sub>	1.5 A AC (250 V AC)
	1.5 A DC (30 V DC)

#### Standards

Standards/regulations	DIN EN 61643-11 2002
	IEC 61643-1 2005
	IEC 60364-7-712 2002

## Certificates / Approvals



Certification

GOST

## Accessories

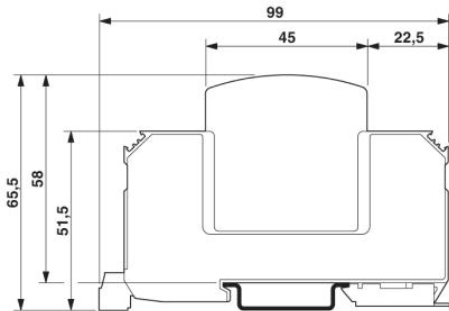
Item	Designation	Description
<b>Bridges</b>		
2818339	MPB F200X16/ 1GS	Wiring bridge flexible, diameter 16 mm <sup>2</sup> , with a fork-type cable lug on one side, length: 200 mm
2818342	MPB F400X16/ 1GS	Wiring bridge flexible, diameter 16 mm <sup>2</sup> , with a fork-type cable lug on one side, length: 400 mm
2818355	MPB F600X16/ 1GS	Wiring bridge flexible, diameter: 16 mm <sup>2</sup> , with a fork-type cable lug on one side, length: 600 mm

## Marking

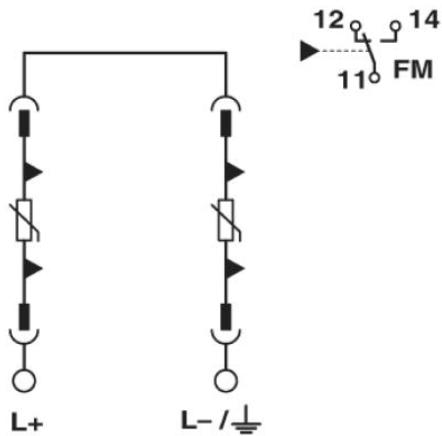
1051993	B-STIFT	Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm
2749589	ZBN 18,LGS:ERDE	Marking labels, printed horizontally, strips with 5 labels, GND (grounding symbol), color: White
2749576	ZBN 18,LGS:L1-N,ERDE	Marker labels, printed horizontally,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