Extract from the online catalog

VAL-MS 230/1+1

Order No.: 2804429

http://eshop.phoenixcontact.sk/phoenix/treeViewClick.do?UID=2804429

Surge arrester for 3-conductor power supply systems (L1, N, PE), consisting of a base element and protective connectors, for mounting on NS 35.

Commercial data	
EAN	4 046356 317801
Pack	1 pcs.
Customs tariff	85363010
Gross weight in pieces	0.22331 kg
Catalog page information	Page 43 (C-6-2013)

Product notes

WEEE/RoHS-compliant since: 01.01.2008

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	35.6 mm
Depth	58 mm
Horizontal pitch	2 Div.

Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g
Vibration (operation)	5g

General

IEC power supply system	TT
	TN-S
Housing material	PA 6.6
	PBT
Inflammability class according to UL 94	V-0
Color	black
Standards for air and creepage distances	DIN EN 60664-1
	EN 61643-11
Mounting type	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible
Number of positions	2
Surge protection fault message	Optical
Direction of action	1L-N & N-PE

Protective circuit

IEC test classification	II
	T2
EN type	T2
Maximum continuous operating voltage U_C (L-N)	275 V AC
Maximum continuous operating voltage U_C (N-PE)	260 V AC
Nominal frequency f_N	50 Hz (60 Hz)
Rated load current I_L	80 A
Residual current I_{PE}	≤ 5 µA
Standby power consumption P_C	≤ 120 mVA
Max. discharge current I_{max} (8/20) µs maximum (L-N)	40 kA

Max. discharge current I_{max} (8/20) µs maximum (L-PE)	40 kA
Max. discharge current I_{max} (8/20) µs maximum (N-PE)	40 kA
Nominal discharge current I_n (8/20) µs (L-N)	20 kA
Nominal discharge current I_n (8/20) µs (L-PE)	20 kA
Nominal discharge current I_n (8/20) µs (N-PE)	20 kA
Front of wave sparkover voltage at 6 kV (1.2/50) µs (N-PE)	≤ 1.5 kV
Insulation resistance R_{iso}	> 1 GΩ (100 V DC)
Voltage protection level U_p (L-N)	≤ 1.35 kV
Voltage protection level U_p (L-PE)	≤ 1.6 kV
Voltage protection level U_p (N-PE)	≤ 1.5 kV
Response time (L-N)	≤ 25 ns
Response time (N-PE)	≤ 100 ns
Max. required backup fuse with branch wiring	125 A AC (gG)
Max. required backup fuse with V-type through wiring	80 A AC (gG)
Follow current quenching capacity If (N-PE)	100 A (260 V)

Connection, protective circuit

Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
	30 lb_f-in. (UL)
Stripping length	16 mm
Conductor cross section stranded min.	1.5 mm²
Conductor cross section stranded max.	25 mm²
Conductor cross section solid min.	1.5 mm²
Conductor cross section solid max.	35 mm²
AWG conductor cross section	15 ... 2
	10 ... 2 (UL)

Standards and Regulations

Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

Certificates

Certification CSA, cULus Recognized, GOST, KEMA-KEUR, ÖVE

Certifications applied for:

Certification Ex:

Accessories

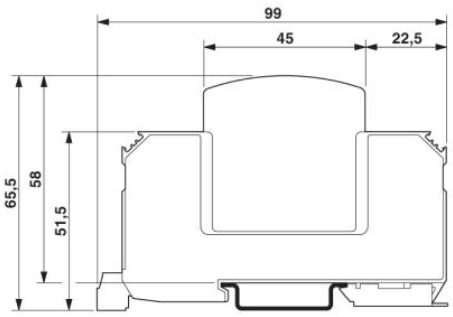
Item	Designation	Description
Bridges		
2809209	MPB 18/1- 2	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 2-pos.
2809212	MPB 18/1- 3	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 3-pos.
2809225	MPB 18/1- 4	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 4-pos.
2748564	MPB 18/1- 6	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 6-pos.
2856278	MPB 18/1- 7 BU	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 7-pos., color: Blue
2748577	MPB 18/1- 8	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos.
2858470	MPB 18/1- 8 BU	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos., color: Blue
2748580	MPB 18/1- 9	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 9-pos.
2748593	MPB 18/1-12	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 12-pos.
2818339	MPB F200X16/ 1GS	Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 200 mm
2818342	MPB F400X16/ 1GS	Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 400 mm
2818355	MPB F600X16/ 1GS	Wiring bridge flexible, diameter: 16 mm², 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	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

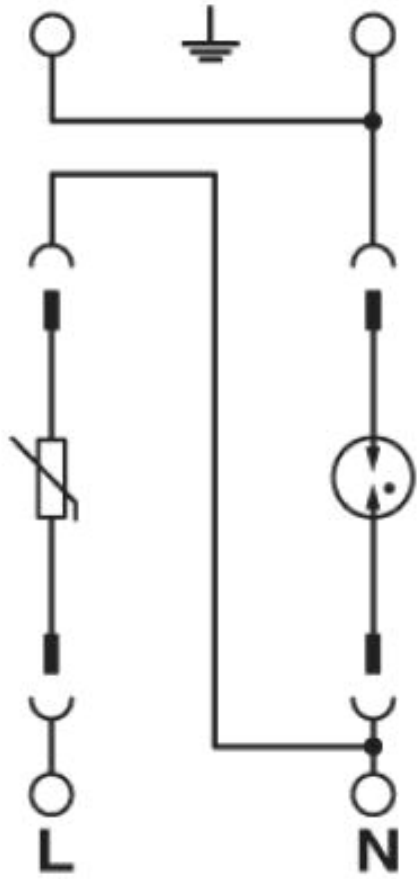
Drawings

Dimensioned drawing



The illustration shows the dimensional drawing for a version with remote indicator contact

Circuit diagram



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