Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Extract from the online catalog

VAL-MS 230/3+1

Order No.: 2838209

http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2838209

Surge arrester consisting of base element and ground connectors, for mounting on NS 35/7.5, nominal voltage: 230 V AC, 3 + 1 circuit

Commercial data	
GTIN (EAN)	4 017918 172824
sales group	J022
Pack	1 pcs.
Customs tariff	85363030
Catalog page information	Page 30 (TT-2009)

Product notes

WEEE/RoHS-compliant since: 05/10/2006

http://www.download.phoenixcontact.com
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. The General Terms and Conditions of Use apply to Internet downloads.

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
Degree of protection	IP20
Mounting type	DIN rail: 35 mm
Design	DIN rail module, two-section, divisible
Number of positions	4
Ambient temperature (operation)	-40 °C ... 80 °C
Message: Surge protection fault	Optical
Direction of action	3L-N & N-PE
Width	70.80 mm
Height	65.50 mm
Length	89.80 mm
Pitch unit	4 Div.

Protective circuit

IEC category	II
	T2
EN type	T2
Nominal voltage U_N	230 V AC (400 V AC)
	400 V AC
	230 V AC ... 415 V AC
Arrester rated voltage U_C	275 V AC
Arrester rated voltage U_C (L-N)	275 V AC
Arrester rated voltage U_C (N-PE)	260 V AC
U_T (TOV-proof)	335 V AC (5 s / L-N)
	1200 V AC (200 ms / N-PE)
Nominal frequency f_N	50 Hz (60 Hz)
Ground conductor current I_{PE}	≤ 1 µA
Standby power consumption P_C	≤ 360 mVA
Max. discharge surge current Imax (8/20) µs	40 kA
Max. discharge surge current Imax (8/20) µs maximum (L-N)	40 kA
Max. discharge surge current Imax (8/20) µs maximum (L-PE)	40 kA
Max. discharge surge current Imax (8/20) µs maximum (N-PE)	40 kA
Nominal discharge surge current I_n (8/20) µs (L-N)	20 kA

Nominal discharge surge current I_n (8/20) µs (L-PE)	20 kA
Nominal discharge surge current I_n (8/20) µs (N-PE)	20 kA
Lightning test current (10/350) µs, peak value I_{imp}	12 kA (N-PE)
Impulse operate voltage at 6 kV (1.2/50)µs (N-PE)	≤ 1.5 kV
Protection level U_P (L-N)	≤ 1.35 kV
Protection level U_P (L-PE)	≤ 1.6 kV
Protection level UP (N-PE)	≤ 1.5 kV
Residual voltage (L-N)	≤ 1.35 kV (at In)
	≤ 1.2 kV (at 10 kA)
	≤ 1.1 kV (at 5 kA)
	≤ 0.95 kV (at 3 kA)
Residual voltage (L-PE)	≤ 1.6 kV (at In)
	≤ 1.35 kV (at 10 kA)
	≤ 1.2 kV (at 5 kA)
	≤ 1 kV (at 3 kA)
Residual voltage (N-PE)	≤ 0.4 kV (at In)
	≤ 0.25 kV (at 10 kA)
	≤ 0.15 kV (at 5 kA)
	≤ 0.1 kV (at 3 kA)
Clamping voltage SVR (L-N)	≤ 0.9 kV (6kV - 500 A)
Clamping voltage SVR (L-PE)	≤ 1.2 kV (6kV - 500 A)
Clamping voltage SVR (N-PE)	≤ 1 kV (6kV - 500 A)
Response time (L-N)	≤ 25 ns
Response time (L-PE)	≤ 100 ns
Response time (N-PE)	≤ 100 ns
Max. required backup fuse with branch wiring	125 A (gL)
Short-circuit resistance I_P with max. backup fuse (effective)	25 kA
Follow current quenching capacity If (N-PE)	100 A (260 V)

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	14.5 mm
Conductor cross section stranded min.	0.5 mm²
Conductor cross section stranded max.	25 mm²
Conductor cross section solid min.	0.5 mm²
Conductor cross section solid max.	35 mm²
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil max	2

Standards

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

Certificates / Approvals

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

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.
2748577	MPB 18/1- 8	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos.
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.

2830168	MPB 18/1-20/1.2.5	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 20 pitches with contact sequence 1-2-0-0-5
2809238	MPB 18/1-57	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 57-pos.
2809241	MPB 18/3- 6	Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 6-pos.
2809283	MPB 18/4- 8	Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 8-pos.
2809283	MPB 18/4- 8	Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 8-pos.
2809296	MPB 18/4-12	Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 12-pos.
2809296	MPB 18/4-12	Wiring bridge for modules with connecting pitch 17.5 mm, 4-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
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
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
2818355	MPB F600X16/ 1GS	Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

General

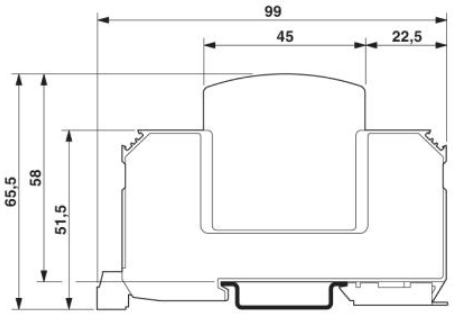
2749880	DK-BIC-35	Feed-through terminal block for VAL and FLT applications
2830443	MPB 18/1-10/1.0.0	Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 10 pitches with contact sequence 1-0-0

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

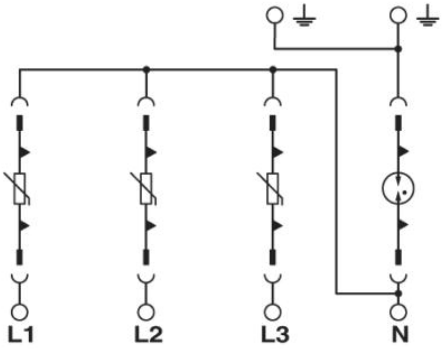
Diagrams/Drawings

Dimensioned drawing



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

Circuit diagram



Address

PHOENIX CONTACT Deutschland GmbH
Flachsmarktstr. 8
32825 Blomberg,Germany
Phone +49 5235 3 12000
Fax +49 5235 3 41200
http://www.phoenixcontact.de