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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



Type 2 surge protection device - VAL-MS 230/FM - 2839130

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Surge voltage arrester consisting of base element with remote indicator contact and ground connector with high-capacity varistor, for mounting on NS 35/7.5, nominal voltage: 230 V AC, 1-channel

Why buy this product

- Single-channel, DIN-rail mountable protective devices
- Base element with/without floating remote indication contact
- Mechanical keying of all slots
- Optical, mechanical status indication for the individual arresters
- Consists of base element and plug
- Disconnect device on each individual plug



Key commercial data

Packing unit	1
Minimum order quantity	1
Catalog page	Page 38 (TT-2011)
GTIN	 4 017918 182595
Custom tariff number	85363030
Country of origin	GERMANY

Technical data

Standards

Housing material	PA
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	DIN VDE 0110-1
Standards for air and creepage distances	IEC 664-1
Degree of protection	IP20
Mounting type	DIN rail: 35 mm
Design	DIN rail module, two-section, divisible
Number of positions	1
Ambient temperature (operation)	-40 °C ... 80 °C

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Technical data

Standards

Message: Surge protection fault	Optical, remote indicator contact
Direction of action	1L-N/PE
Width	17.7 mm
Height	96.8 mm
Depth	65.5 mm
Pitch unit	1 Div.

Protective circuit

IEC category	II
IEC category	T2
EN type	T2
Nominal voltage UN	230 V AC
Arrester rated voltage UC	275 V AC
Arrester rated voltage UC (L-N)	275 V AC
Arrester rated voltage UC (L-PEN)	275 V AC
Nominal frequency fN	50 Hz (60 Hz)
Ground conductor current IPE	≤ 300 µA (at UN)
Operating effective current IC at UN	≤ 300 µA
Max. discharge surge current I _{max} (8/20) µs	40 kA
Max. discharge surge current I _{max} (8/20) µs maximum (L-N)	40 kA
Max. discharge surge current I _{max} (8/20) µs maximum (L-PEN)	40 kA
Nominal discharge surge current I _n (8/20) µs	20 kA
Nominal discharge surge current I _n (8/20) µs (L-N)	20 kA
Nominal discharge surge current I _n (8/20) µs (L-PEN)	20 kA
Lightning test current (10/350) µs, peak value limp	3 kA
Max. energy absorption (2 ms)	550 J
Protection level Up	≤ 1.35 kV
Protection level UP (L-N)	≤ 1.35 kV
Protection level UP (L-PEN)	≤ 1.35 kV
Residual voltage	≤ 1 kV (at 5 kA)
Residual voltage (L-N)	≤ 1 kV (at 5 kA)
Residual voltage (L-PEN)	≤ 1 kV (at 5 kA)
Response time	≤ 25 ns
Response time (L-N)	≤ 25 ns
Response time (L-N)	≤ 25 ns
Max. required backup fuse with branch wiring	125 A (gL)
Short-circuit resistance IP with max. backup fuse (effective)	25 kA

Connection, protective circuit

Connection method	Screw connection
Connection type IN	Biconnect screw terminal block
Connection type OUT	Biconnect screw terminal block
Screw thread	M5
Tightening torque	4.5 Nm

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Connection, protective circuit

Tightening torque	30 lb in (UL)
Stripping length	14.5 mm
Conductor cross section stranded min.	0.5 mm ²
Conductor cross section stranded max.	25 mm ²
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	35 mm ²
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil max	2
AWG conductor cross section	10 ... 2 (UL)

Remote indicator contact

Connection name	Remote fault indicator contact
Switching function	PDT contact
Connection method	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Tightening torque	4 lb in (UL)
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
AWG conductor cross section	30 ... 14 (UL)
Maximum operating voltage U _{max} AC	250 V AC
Maximum operating voltage U _{max} DC	125 V DC
Max. operating current I _{max}	1 A AC (inductive)
Max. operating current I _{max}	1 A AC (ohmic)
Max. operating current I _{max}	30 mA DC (inductive)
Max. operating current I _{max}	200 mA DC (ohmic)
Min. permissible switching capacity	0.12 VA (12 V, 10 mA)

Standards

Standards/regulations	IEC 61643-1 2005
Standards/regulations	EN 61643-11/A11 2007
Standards/regulations	NF C61-740 1995
Standards/regulations	UL 1449

Classifications

eClass

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801

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Classifications

eclass

eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130805
eCl@ss 7.0	27130805

etim

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000941

unspsc

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

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IECEE CB Scheme / UL Recognized / KEMA-KEUR / ÖVE / cUL Recognized / GOST / GL / CCA / cULus Recognized

Ex Approvals

Approvals submitted

Approval details

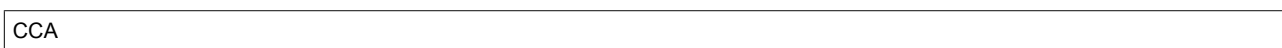
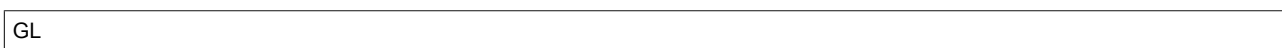
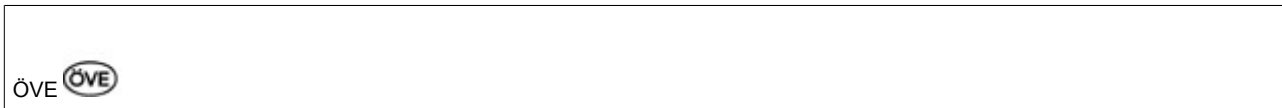
IECEE CB Scheme

UL Recognized

KEMA-KEUR

Type 2 surge protection device - VAL-MS 230/FM - 2839130

Approvals



Accessories

Accessories

Bridges

Wiring bridge - MPB 18/1- 2 - 2809209



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 2-pos.

Wiring bridge - MPB 18/1- 3 - 2809212



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 3-pos.

Type 2 surge protection device - VAL-MS 230/FM - 2839130

Accessories

Wiring bridge - MPB 18/1- 4 - 2809225



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 4-pos.

Wiring bridge - MPB 18/1- 6 - 2748564



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 6-pos.

Wiring bridge - MPB 18/1- 7 BU - 2856278



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 7-pos., color: Blue

Wiring bridge - MPB 18/1- 8 BU - 2858470



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos., color: Blue

Wiring bridge - MPB 18/1- 8 - 2748577



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

Wiring bridge - MPB 18/1- 9 - 2748580



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 9-pos.

Type 2 surge protection device - VAL-MS 230/FM - 2839130

Accessories

Wiring bridge - MPB 18/1-12 - 2748593



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 12-pos.

Wiring bridge - MPB 18/1-57 - 2809238



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 57-pos.

Wiring bridge - MPB 18/3- 6 - 2809241



Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 6-pos.

Wiring bridge - MPB 18/3- 9 - 2809254



Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 9-pos.

Wiring bridge - MPB 18/4- 8 - 2809283



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 8-pos.

Type 2 surge protection device - VAL-MS 230/FM - 2839130

Accessories

Wiring bridge - MPB 18/4-12 - 2809296



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 12-pos.

Wiring bridge - MPB F200X16/ 1GS - 2818339



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 200 mm

Wiring bridge - MPB F400X16/ 1GS - 2818342



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 400 mm

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

Wiring bridge - MPB F400X16/ 1GS - 2818342



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 400 mm

Type 2 surge protection device - VAL-MS 230/FM - 2839130

Accessories

Wiring bridge - MPB F200X16/ 1GS - 2818339



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 200 mm

Wiring bridge - MPB 18/1-20/1.2.5 - 2830168



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 20 pitches with contact sequence 1-2-0-0-5

Wiring bridge - MPB 18/4-12 - 2809296



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 12-pos.

Wiring bridge - MPB 18/4- 8 - 2809283



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 8-pos.

Wiring bridge - MPB 18/3- 6 - 2809241



Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 6-pos.

Type 2 surge protection device - VAL-MS 230/FM - 2839130

Accessories

Wiring bridge - MPB 18/1-57 - 2809238



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 57-pos.

Wiring bridge - MPB 18/1-12 - 2748593



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 12-pos.

Wiring bridge - MPB 18/1- 9 - 2748580



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 9-pos.

Wiring bridge - MPB 18/1- 8 - 2748577



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

Wiring bridge - MPB 18/1- 6 - 2748564



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 6-pos.

Wiring bridge - MPB 18/1- 4 - 2809225



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 4-pos.

Type 2 surge protection device - VAL-MS 230/FM - 2839130

Accessories

Wiring bridge - MPB 18/1- 3 - 2809212



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 3-pos.

Wiring bridge - MPB 18/1- 2 - 2809209



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 2-pos.

Marking

Zack marker strip - ZBN 18,LGS:ERDE - 2749589



Zack marker strip, 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

Zack marker strip - ZBN 18,LGS:L1-N,ERDE - 2749576



Zack marker strip, 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

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



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

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Accessories

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Feed-through terminal block - DK-BIC-35 - 2749880



Feed-through terminal block for VAL and FLT applications

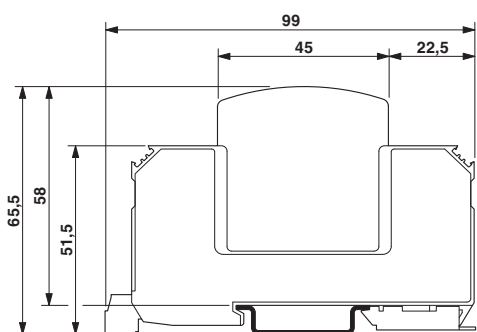
Wiring bridge - MPB 18/1-10/1.0.0 - 2830443



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 10 pitches with contact sequence 1-0-0

Drawings

Dimensioned drawing



Circuit diagram

