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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 base element - VAL-MS/3+0/HD-BE/ FM - 2920489


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Base element for type 2 arresters of the VALVETRAB MS product range, with remote indication contact. Version for 3-phase power supplies with PEN conductor.



## Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 182621
GTIN	4046356182621

## Technical data

### Dimensions

Height	99 mm
Width	53.4 mm
Depth	44 mm

### 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 test classification	II
	T2
EN type	T2

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## Technical data

### General

Mounting type	DIN rail: 35 mm
Color	black
Housing material	PBT
Degree of pollution	2
Flammability rating according to UL 94	V-0
Design	DIN rail module, two-section, divisible
Number of positions	3
Surge protection fault message	Remote indication contact

### Additional descriptions

Note	For installation into a touch protected cabinet. For applications with $U_c > 500$ V distances at the side and distances at the connection area must be minimum of 8 mm between different active parts including earthed parts.
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### Protective circuit

Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	1000 V AC
Rated load current $I_L$	80 A
Short-circuit current rating $I_{SCCR}$	25 kA
Max. backup fuse with branch wiring	200 A AC (gG)
Max. backup fuse with V-type through wiring	80 A AC (gG)

### Indicator/remote signaling

Switching function	PDT contact
Operating voltage	5 V AC ... 250 V AC
	30 V DC
Operating current	5 mA AC ... 1.5 A AC
	1 A DC
Connection method	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16

### Connection data

Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm

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## Technical data

### Connection data

Conductor cross section flexible	1.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Conductor cross section solid	1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section AWG	15 ... 2

### UL specifications

SPD Type	4 (for Type 2 applications)
Nom. voltage	690 V AC

### UL indicator/remote signaling

Operating voltage	125 V AC
Operating current	1 A AC
Tightening torque	4 lb <sub>F</sub> -in.
Conductor cross section AWG	30 ... 14

### UL connection data

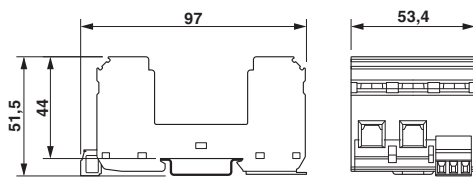
Conductor cross section AWG	10 ... 2
Tightening torque	30 lb <sub>F</sub> -in.

### Standards and Regulations

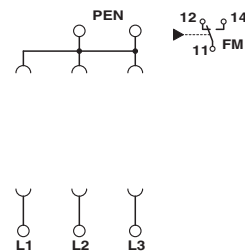
Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

## Drawings

Dimensional drawing



Circuit diagram



## Approvals

### Approvals

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UL Recognized / KEMA-KEUR / ÖVE / cUL Recognized / CCA / IEC EE CB Scheme / EAC / cULus Recognized

### Ex Approvals

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## Approvals

### Approval details

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
KEMA-KEUR		<a href="http://www.dekra-certification.com">http://www.dekra-certification.com</a>	2170208.01
ÖVE		<a href="https://www.ove.at/en/certification-pz/certification-register/">https://www.ove.at/en/certification-pz/certification-register/</a>	18583-001-12
cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
CCA			NTR-AT 1947-A
IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	AT 2905/M1
EAC			RU C- DE.A*30.B01561
cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	