

# Type 2 surge protection plug - VAL-MS 320-UD ST - 2858315


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Surge protection connector type 2 with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 320 V AC



## Key Commercial Data

Packing unit	10 pc
GTIN	 4 017918 878054
GTIN	4017918878054

## Technical data

### Dimensions

Height	52.4 mm
Width	17.5 mm
Depth	55.3 mm
Horizontal pitch	1 Div.

### Ambient conditions

Degree of protection	IP20
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 (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

### General

IEC test classification	II
	T2
EN type	T2

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## Technical data

### General

IEC power supply system	TN
	TT
Mode of protection	L-N
	L-PEN
Mounting type	on base element
Color	jet black RAL 9005
Housing material	PA 6.6
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	1
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.10
Surge protection fault message	optical

### Protective circuit

Nominal voltage $U_N$	240/415 V AC (TN)
	240/415 V AC (TT)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	335 V AC
Residual current $I_{PE}$	$\leq 0.45$ mA
Standby power consumption $P_C$	$\leq 150$ mVA
Nominal discharge current $I_n$ (8/20) $\mu$ s	20 kA
Maximum discharge current $I_{max}$ (8/20) $\mu$ s	40 kA
Short-circuit current rating $I_{SCCR}$	25 kA
Voltage protection level $U_p$	$\leq 1.5$ kV
Residual voltage $U_{res}$	$\leq 1.5$ kV (at $I_n$ )
	$\leq 1.3$ kV (at 10 kA)
	$\leq 1.2$ kV (at 5 kA)
	$\leq 1.1$ kV (at 3 kA)
TOV behavior at $U_T$	415 V AC (5 s / withstand mode)
	440 V AC (120 min / safe failure mode)
Response time $t_A$	$\leq 25$ ns
Max. backup fuse with branch wiring	125 A (gG)

### Connection data

Connection method	pluggable
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### UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-N)	320 V AC
Nom. voltage	320 V AC
Mode of protection	L-N

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#### UL specifications

Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	2030 V
Nominal discharge current $I_n$ (L-N)	20 kA

#### Standards and Regulations

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

#### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

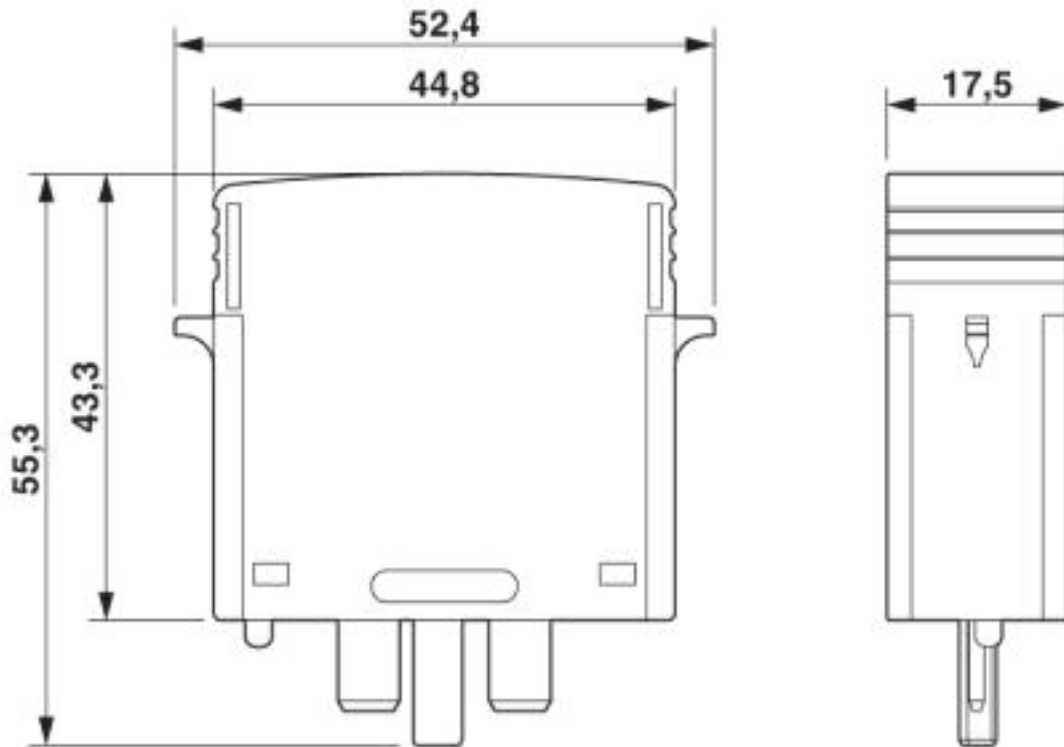
## Type 2 surge protection plug - VAL-MS 320-UD ST - 2858315

Circuit diagram



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Dimensional drawing



## Approvals

Approvals

Approvals

CSA / CCA / UL Recognized / KEMA-KEUR / cUL Recognized / IECCE CB Scheme / ÖVE / EAC / cULus Recognized

Ex Approvals

## Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
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CCA			NTR-AT 1947-A
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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
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### Approvals

KEMA-KEUR		<a href="http://www.dekra-certification.com">http://www.dekra-certification.com</a>	2170208.01
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
IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	AT 2905/M1
ÖVE		<a href="https://www.ove.at/zertifizierung-pz/zertifizierungsregister/">https://www.ove.at/zertifizierung-pz/zertifizierungsregister/</a>	18583-001-14
EAC			RU C- DE.A*30.B01561
cULus Recognized			

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