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# Type 2 surge protection plug - VAL-US 120 ST - 2800739


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Surge protection plug type 2 with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 120 V AC.

RoHS

## Key Commercial Data

Packing unit	10 STK
GTIN	 4 046356 644396
GTIN	4046356644396

## 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
Mode of protection	L-N

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## Technical data

### General

	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	Male
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 $U_N$	120/208 V AC (TN)
Nominal frequency $f_N$	60 Hz (50 Hz)
Maximum continuous voltage $U_C$	175 V AC
Residual current $I_{PE}$	$\leq 0.45$ mA
Standby power consumption $P_C$	$\leq 80$ 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 $U_p$	$\leq 0.9$ kV
Residual voltage $U_{res}$	$\leq 0.9$ kV (at $I_n$ )
	$\leq 0.75$ kV (at 10 kA)
	$\leq 0.6$ kV (at 5 kA)
	$\leq 0.55$ kV (at 3 kA)
TOV behavior at $U_T$	208 V AC (5 s / withstand mode)
	240 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	VALVETRAB plug-in system
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### UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-N)	175 V AC
Nom. voltage	120 V AC
Mode of protection	L-N
Power distribution system	1
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	1600 V
Nominal discharge current $I_n$ (L-N)	10 kA

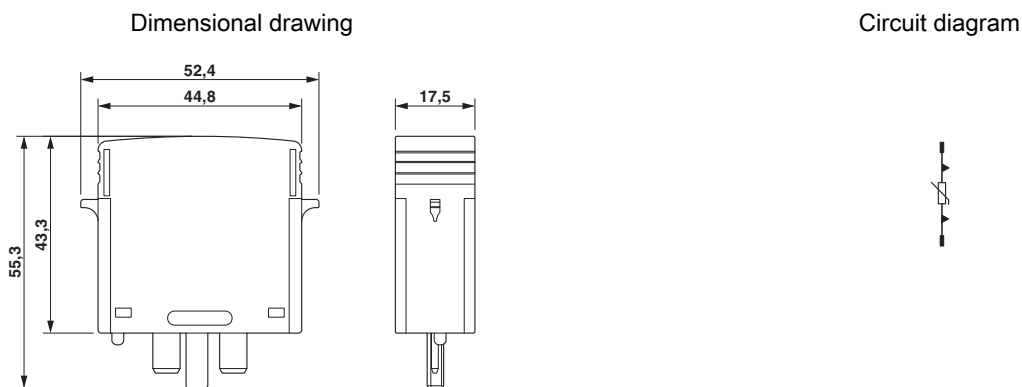
# Type 2 surge protection plug - VAL-US 120 ST - 2800739

## Technical data

### Standards and Regulations

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

## Drawings



## Approvals

### Approvals

#### Approvals

UL Recognized / cUL Recognized / CSA / EAC / cULus Recognized

#### Ex 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
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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
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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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### Approvals

EAC		RU C- DE.A*30.B01561
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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>
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