

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!



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Surge protection connector type 2 with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 480 V AC

The figure shows the VAL-US 347 ST version



# Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	60.0 GRM
Custom tariff number	85363090
Country of origin	Germany

### Technical data

### **Dimensions**

Height	52.4 mm
Width	17.5 mm
Depth	55.3 mm

#### 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
Vibration (operation)	5g

#### General

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



# Technical data

### General

IEC test classification	II
	T2
EN type	T2
SPD design	Voltage-limiting type
Mode of protection	L-PEN
	L-PE
Mounting type	On base element
Color	black
Housing material	PA 6.6
Pollution degree	2
Distance between live and grounded parts	5 mm
Inflammability class according to UL 94	V-0
Туре	Male
Number of positions	1
Surge protection fault message	Optical

# Additional descriptions

Note	Usable in all low-voltage systems between L-N or L-PEN. Only usable in IT Systems between L-PE, if the exposed-conductive-parts (bodies) of the equipment of the low-voltage installation is connected to the earthing arrangement of the transformer substation. (interconnected earthing arrangement of the HV-transformer substation with the bodies of the LV-installation. $R_E = R_A$ accordance to IEC 60364-4-442 / VDE 0100-442 Fig. 44D / Example a)

### Protective circuit

Nominal voltage U <sub>N</sub>	400/690 V AC (TN)
	500 V AC (IT)
Nominal frequency f <sub>N</sub>	60 Hz (50 Hz)
Maximum continuous operating voltage U <sub>C</sub>	580 V AC
Residual current I <sub>PE</sub>	≤ 0.25 mA
Standby power consumption P <sub>C</sub>	≤ 150 mVA
Nominal discharge current I <sub>n</sub> (8/20) μs	15 kA
Maximum discharge current I <sub>max</sub> (8/20) μs	30 kA
Short-circuit current rating I <sub>SCCR</sub>	25 kA
Voltage protection level U <sub>p</sub>	≤ 2.5 kV
Residual voltage U <sub>res</sub>	$\leq$ 2.5 kV (at I <sub>n</sub> )
	≤ 2.3 kV (at 10 kA)
	≤ 2.1 kV (at 5 kA)
	≤ 1.9 kV (at 3 kA)



# Technical data

### Protective circuit

TOV behavior at U <sub>T</sub>	690 V AC (5 s / withstand mode)
Response time t <sub>A</sub>	≤ 25 ns
Max. backup fuse with branch wiring	125 A AC (gG)

### Connection data

Connection method	VALVETRAB plug-in system
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# NEMA/UL protective circuit

UL class	Type 4 SPD for Type 2 applications
Maximum continuous operating voltage MCOV (L-N)	580 V AC
Nominal voltage U <sub>N</sub>	480 V AC
Mode of protection	L-N
Power distribution system	1
Nominal frequency	50/60 Hz
Voltage protection rating VPR (L-N)	1.8 kV
Nominal discharge current I <sub>n</sub> (L-N)	10 kA

# Classifications

# eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130803
eCl@ss 7.0	27130803
eCl@ss 8.0	27130803

### **ETIM**

ETIM 3.0	EC000472
ETIM 4.0	EC000472
ETIM 5.0	EC000472

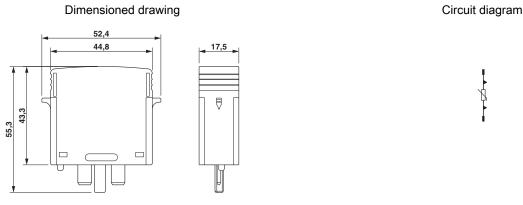
### **UNSPSC**

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

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# Approvals Approvals Approvals UL Recognized / cUL Recognized / cULus Recognized Ex Approvals Approvals submitted Approval details UL Recognized **\$\)** cUL Recognized cULus Recognized 1931 us **Drawings** Dimensioned drawing Circuit diagram





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