

# VAL-US-600D/30-P - Type 1 surge protection plug



2910341

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UL Recognized type 1 SPD and IEC type 2 surge protection plug with a varistor and thermal disconnect for use with VAL-US base elements, mechanical and visual fault warning

## Product description

Surge protective device replacement plug

## Your advantages

- Thermal disconnect device for each individual plug
- Optical, mechanical status indication for the individual arresters
- Mechanical coding of all slots
- Consists of base element and plug
- Pluggable

## Commercial data

Item number	2910341
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL18
Product key	CL1321
GTIN	4055626444833
Weight per piece (including packing)	66.6 g
Weight per piece (excluding packing)	60 g
Customs tariff number	85363030
Country of origin	DE

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## Technical data

### Notes

General	Used in:
General	
Note	For use in all low-voltage systems between L-PEN.  Only for use in IT systems between L-PE if the exposed conductive parts of the equipment of the low-voltage electrical installation are connected to the grounding system of the transformer station (common grounding of the HV transformer station and the exposed conductive part of the LV load system).  RE = RA according to VDE 0100-442:2013, Figure 44.A1 and Table 44.A1

### Product properties

Product type	Replacement plug
Product family	VALVETRAB MS
IEC test classification	II
EN type	T2
Type	Male
Number of positions	1
Surge protection fault message	optical

### Insulation characteristics

Overvoltage category	III
Pollution degree	2

### Electrical properties

Nominal frequency $f_N$	50 Hz (60 Hz)
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### Connection data

Connection method	VALVETRAB plug-in system
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### Dimensions

Dimensional drawing	
Width	17.5 mm
Height	52.4 mm
Depth	55.3 mm

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Horizontal pitch	1 Div.
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## Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA 6.6/PBT
Material group	I
Housing material	PA 6.6 PBT

## Protective circuit

Mode of protection	L-PEN
Direction of action	1L-N/PE
Nominal voltage $U_N$	554/960 V AC (TN-C)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous operating voltage $U_C$	750 V AC
Protective conductor current $I_{PE}$	$\leq 500 \mu\text{A}$
Standby power consumption $P_C$	$\leq 400 \text{ mVA}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$	15 kA
Maximum discharge current $I_{max}$ (8/20) $\mu\text{s}$	30 kA
Short-circuit current rating $I_{SCCR}$	25 kA
Voltage protection level $U_p$	$\leq 2.9 \text{ kV}$
Residual voltage $U_{res}$	$\leq 2.9 \text{ kV}$ (at $I_n$ ) $\leq 2.7 \text{ kV}$ (at 10 kA) $\leq 2.5 \text{ kV}$ (at 5 kA) $\leq 2.3 \text{ kV}$ (at 3 kA)
TOV behavior at $U_T$	1000 V AC (5 s / withstand mode) 1056 V AC (120 min / safe failure mode)
Max. backup fuse with branch wiring	100 A (gG)

## Additional technical data

Maximum discharge current $I_{max}$ (8/20) $\mu\text{s}$	30 kA
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	$\leq 2000 \text{ m}$ (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g (Half-sine / 11 ms / 3x $\pm X$ , $\pm Y$ , $\pm Z$ )
Vibration (operation)	5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

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## Approvals

### UL specifications

Maximum continuous operating voltage MCOV	750 V AC
Short-circuit current rating (SCCR)	200 kA
Voltage protection rating VPR	2500 V
UL type	type 1
Nominal discharge current $I_n$	20 kA
Maximum Surge Current per Phase	30 kA
Mode of protection	L-L L-G
Nominal voltage	600 V AC (Delta)
Power distribution system	Single phase
Nominal frequency	50/60 Hz
SPD Type	1CA

## Standards and regulations

### Air clearances and creepage distances

Standards/regulations	EN 60664-1 / EN 61643-11
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

## Mounting

Mounting type	on base element
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## Drawings



Circuit diagram



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## Approvals

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**cUL Recognized**

Approval ID: FILE E 330181



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## Classifications

### ECLASS

ECLASS-13.0	27171292
ECLASS-15.0	27171292

### ETIM

ETIM 10.0	EC002496
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### UNSPSC

UNSPSC 21.0	39121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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