

# Type 1 surge protection plug - VAL-US-48/65-P - 2910328

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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

- Plugs can be checked with CHECKMASTER
- Secure hold of plugs in the event of high lightning current loads and strong vibrations thanks to new latching
- Thermal disconnect device for each individual plug
- Pluggable
- Mechanical coding of all slots
- Optical, mechanical status indication for the individual arresters
- Pluggable



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 445298
GTIN	4055626445298

## Technical data

### Dimensions

Height	47 mm
Width	17.5 mm
Depth	67.3 mm
Horizontal pitch	1 Div.

### Ambient conditions

Degree of protection	IP20
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## Technical data

### Ambient conditions

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)	30g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	7.5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

### General

IEC test classification	I / II
	T1 / T2
EN type	T1 / T2
IEC power supply system	DC
Mode of protection	L-N
	L-PEN
	N-PE
Mounting type	on base element
Color	jet black RAL 9005
Housing material	PA 6.6
	PBT
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	Male
Number of positions	1
Surge protection fault message	optical

### Protective circuit

Nominal voltage $U_N$	60 V DC ±10 %
	-48 V DC ±10 % (RRH)
Maximum continuous voltage $U_C$	100 V DC
Residual current $I_{PE}$	≤ 600 µA
Standby power consumption $P_C$	≤ 45 mVA
Nominal discharge current $I_n$ (8/20) µs	12.5 kA
Maximum discharge current $I_{max}$ (8/20) µs	65 kA
Short-circuit current rating $I_{SCCR}$	25 kA
Voltage protection level $U_p$	≤ 0.4 kV
Residual voltage $U_{res}$	≤ 0.4 kV (at $I_n$ )
	≤ 0.35 kV (at 10 kA)
	≤ 0.3 kV (at 5 kA)
	≤ 0.25 kV (at 3 kA)
TOV behavior at $U_T$	100 V AC (5 s / withstand mode)
	130 V DC (5 s / withstand mode)

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### Technical data

#### Protective circuit

Max. backup fuse with branch wiring	125 A (gG)
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#### Connection data

Connection method	VALVETRAB plug-in system
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#### UL specifications

SPD Type	1CA
Maximum continuous operating voltage MCOV	100 V DC
Nominal voltage	48 V DC
Mode of protection	L-N
	L-G
	N-G
Power distribution system	Single phase
Voltage protection rating VPR	400 V
Nominal discharge current $I_n$	20 kA
Maximum Surge Current per Phase	65 kA
Short-circuit current rating (SCCR)	5 kA

#### Standards and Regulations

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

### Drawings

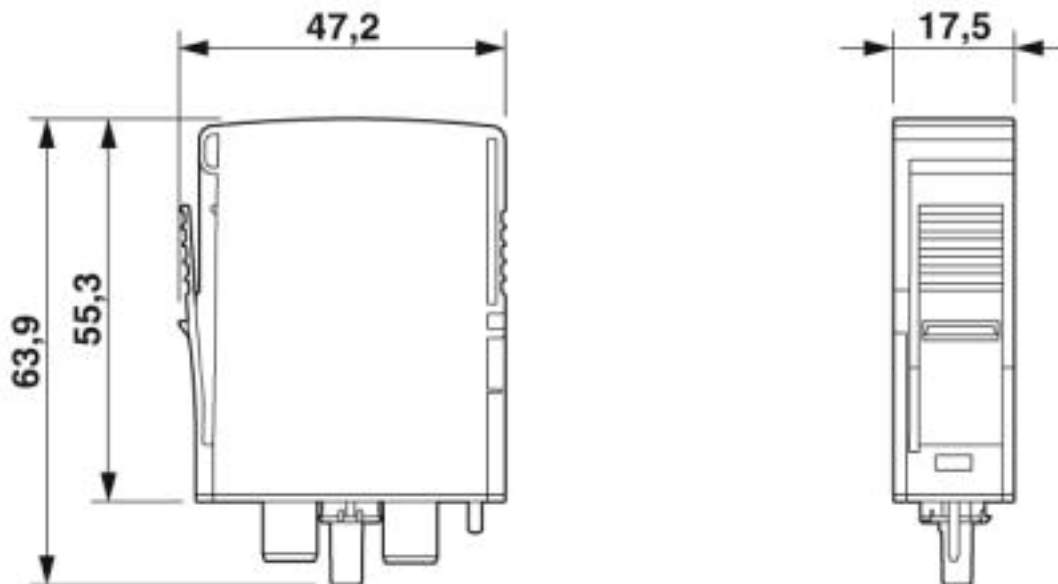
# Type 1 surge protection plug - VAL-US-48/65-P - 2910328

Circuit diagram



# Type 1 surge protection plug - VAL-US-48/65-P - 2910328

Dimensional drawing



## Classifications

eCl@ss

eCl@ss 6.0	27130800
eCl@ss 7.0	27130890
eCl@ss 8.0	27130890
eCl@ss 9.0	27130890

ETIM

ETIM 5.0	EC002496
ETIM 6.0	EC002497
ETIM 7.0	EC002497

## Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / UL Recognized / cUL Recognized

Ex Approvals

Approval details

# Type 1 surge protection plug - VAL-US-48/65-P - 2910328

## Approvals

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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## Accessories

### Accessories

#### Surge arrester

Type 1 surge protection device - VAL-US-48/65/1+0-FM - 2910345



Surge protective device, single channel with remote indicator contact for 48 V DC.

Type 1 surge protection device - VAL-US-48/65/1+1V-FM - 2910346



Surge protective device, two channels with remote indicator contact for 48 V DC, 2-wire plus ground

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