

## Type 2 surge protection plug - VAL-US 277 ST - 2800741

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Surge protection connector type 2 with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 277 V AC

The figure shows the VAL-US 347 ST version



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	50.0 g
Custom tariff number	85363090
Country of origin	Germany

### 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
Vibration (operation)	5g

# Type 2 surge protection plug - VAL-US 277 ST - 2800741

## Technical data

### General

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012
IEC test classification	II
	T2
EN type	T2
SPD design	Voltage-limiting type
Mode of protection	L-PEN
	L-N
Mounting type	On base element
Color	black
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 $U_N$	240/415 V AC (TN)
	240/415 V AC (TT)
Nominal frequency $f_N$	60 Hz (50 Hz)
Maximum continuous voltage $U_C$	385 V AC
Residual current $I_{PE}$	$\leq 0.45$ mA
Standby power consumption $P_C$	$\leq 175$ 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 $U_p$	$\leq 1.8$ kV
Residual voltage $U_{res}$	$\leq 1.8$ kV (at $I_n$ )
	$\leq 1.6$ kV (at 10 kA)
	$\leq 1.4$ kV (at 5 kA)
	$\leq 1.3$ kV (at 3 kA)
TOV behavior at $U_T$	415 V AC (5 s / withstand mode)
	440 V AC (120 min / withstand mode)
Response time $t_A$	$\leq 25$ ns
Max. backup fuse with branch wiring	125 A (gG)

## Type 2 surge protection plug - VAL-US 277 ST - 2800741

### Technical data

#### UL specifications

SPD Type	4 (for Type 2 applications)
Maximum continuous operating voltage MCOV (L-N)	385 V AC
Nom. voltage	277 V AC
Mode of protection	L-N
Power distribution system	1
Nominal frequency	50/60 Hz
Voltage protection rating VPR (L-N)	1.5 kV
Nominal discharge current $I_n$ (L-N)	20 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	27130805

#### ETIM

ETIM 3.0	EC000472
ETIM 4.0	EC000472
ETIM 5.0	EC000941

#### UNSPSC

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

### Approvals

#### Approvals

---

#### Approvals

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

# Type 2 surge protection plug - VAL-US 277 ST - 2800741

## Approvals

Ex Approvals

Approvals submitted

## Approval details

UL Recognized

cUL Recognized

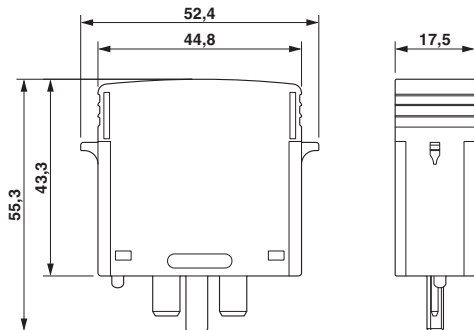
CSA

EAC

cULus Recognized

## Drawings

Dimensional drawing



Circuit diagram



