

# VAL-MS 230 IT ST - Type 2 surge protection plug



2807599

<https://www.phoenixcontact.com/us/products/2807599>

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 documentation. Our general terms of use for downloads are valid.



Surge protection connector type 2 with high-capacity varistor for VAL-MS base element, thermal monitoring, visual fault warning. Design: 230 V AC (IT system)

## Your advantages

- Quality proven millions of times over in the widest range of applications
- Rapid installation with bridges, thanks to industry-standard overall width of 1 HP
- Easy testing and insulation measurement, thanks to pluggable protection modules
- Wide range of applications due to various nominal voltages
- High degree of modularity provides individual solutions for every application

## Commercial data

Item number	2807599
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL18
Product key	CL1321
GTIN	4017918075286
Weight per piece (including packing)	50.8 g
Weight per piece (excluding packing)	47.55 g
Customs tariff number	85363030
Country of origin	DE

# VAL-MS 230 IT ST - Type 2 surge protection plug



2807599

<https://www.phoenixcontact.com/us/products/2807599>

## Technical data

### Notes

Order information:	Use in DC applications on request
--------------------	-----------------------------------

### General

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)
------	--

### Product properties

Product type	Replacement plug
Product family	VALVETRAB MS
IEC test classification	II T2
EN type	T2
IEC power supply system	TN TT IT
Type	Male
Number of positions	1
Surge protection fault message	optical
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.10
Number of ports	One

### Insulation characteristics

Overvoltage category	III
Pollution degree	2

### Electrical properties

Nominal frequency $f_N$	50 Hz (60 Hz)
-------------------------	---------------

### Connection data

Connection method	pluggable
-------------------	-----------

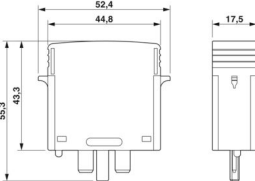
### Dimensions

# VAL-MS 230 IT ST - Type 2 surge protection plug



2807599

<https://www.phoenixcontact.com/us/products/2807599>

Dimensional drawing	
Width	17.5 mm
Height	52.4 mm
Depth	55.3 mm
Horizontal pitch	1 Div.

## Material specifications

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

## Protective circuit

Mode of protection	L-N
	L-PE
	L-PEN
Direction of action	1L-N/PE
Nominal voltage $U_N$	240/415 V AC (TN)
	240/415 V AC (TT)
	230 V AC (IT)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous operating voltage $U_C$	385 V AC
Protective conductor 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)

# VAL-MS 230 IT ST - Type 2 surge protection plug



2807599

<https://www.phoenixcontact.com/us/products/2807599>

## 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	≤ 2000 m (amsl)
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)

## Approvals

### UL specifications

Maximum continuous operating voltage MCOV (L-N)	385 V AC
Nominal discharge current $I_n$ (L-N)	20 kA
Mode of protection	L-N
Nominal voltage	230 V AC
Power distribution system	Single phase
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	2200 V
SPD Type	4CA

## Standards and regulations

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

## Mounting

Mounting type	on base element
---------------	-----------------

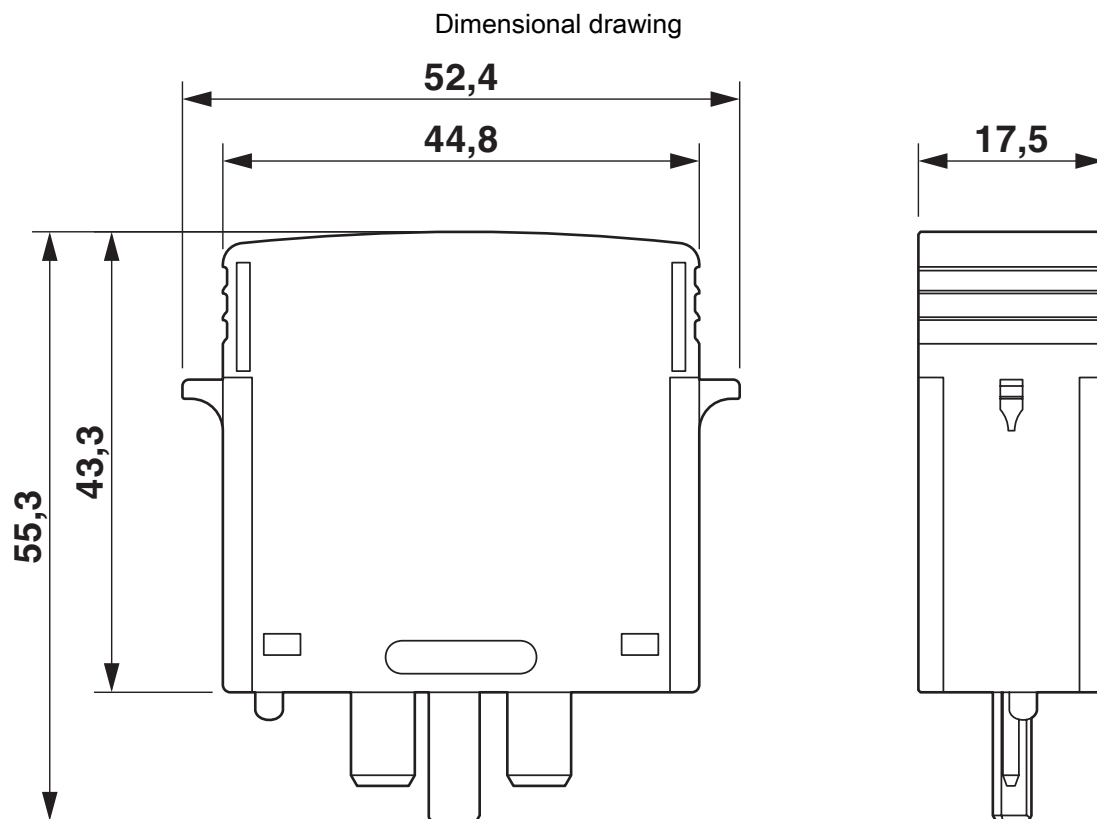
# VAL-MS 230 IT ST - Type 2 surge protection plug

2807599

<https://www.phoenixcontact.com/us/products/2807599>



## Drawings



Circuit diagram



# VAL-MS 230 IT ST - Type 2 surge protection plug



2807599

<https://www.phoenixcontact.com/us/products/2807599>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2807599>



**cUL Recognized**  
Approval ID: FILE E 330181



**UL Recognized**  
Approval ID: FILE E 330181



**IECEE CB Scheme**  
Approval ID: AT 2905/M1

**CCA**

Approval ID: NTR-AT 1947-A



**KEMA-KEUR**  
Approval ID: 71-148002



**CSA**  
Approval ID: 13631



**ÖVE**  
Approval ID: 18583-001-17

**UAE-RoHS**

Approval ID: 22-09-51250



**ÖVE**  
Approval ID: 18583-001-18

# VAL-MS 230 IT ST - Type 2 surge protection plug



2807599

<https://www.phoenixcontact.com/us/products/2807599>

## Classifications

### ECLASS

ECLASS-13.0	27171292
ECLASS-15.0	27171292

### ETIM

ETIM 10.0	EC002496
-----------	----------

### UNSPSC

UNSPSC 21.0	39121600
-------------	----------

# VAL-MS 230 IT ST - Type 2 surge protection plug



2807599

<https://www.phoenixcontact.com/us/products/2807599>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

### 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%
-------------------------------------	----------------------------

### EF3.1 Climate Change

CO2e kg	0.622 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)