

Type 2 surge protection plug - VAL-MS 120 ST - 2807586

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: 120 V AC

Product Features

- ✓ Single-channel, DIN-rail mountable protective devices
- ✓ Base element with/without floating remote indication contact
- ✓ Disconnect device on each individual plug
- ✓ Consists of base element and plug
- ✓ Optical, mechanical status indication for the individual arresters
- ✓ Mechanical coding of all slots



Key commercial data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 017918 075279 |
| Weight per Piece (excluding packing) | 31.2 GRM |
| Custom tariff number | 85363010 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|------------------|---------|
| Height | 52.4 mm |
| Width | 17.5 mm |
| Depth | 55.3 mm |
| Horizontal pitch | 1 Div. |

Type 2 surge protection plug - VAL-MS 120 ST - 2807586

Technical data

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 |
| 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 |
| Pollution degree | 2 |
| Inflammability class according to UL 94 | V-0 |
| Type | DIN rail module, two-section, divisible |
| 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 | 120/208 V AC (TN) |
| Nominal frequency f_N | 50 Hz (60 Hz) |
| Maximum continuous operating voltage U_C | 150 V AC |
| Residual current I_{PE} | ≤ 0.45 mA |
| Standby power consumption P_C | ≤ 70 mVA |
| Nominal discharge current I_n (8/20) μ s | 20 kA |
| Maximum discharge current I_{max} (8/20) μ s | 40 kA |
| Short-circuit current rating I_{SCCR} | 25 kA |
| Voltage protection level U_p | ≤ 0.9 kV |
| Residual voltage U_{res} | ≤ 0.9 kV (at I_n) |

Type 2 surge protection plug - VAL-MS 120 ST - 2807586

Technical data

Protective circuit

| | |
|-------------------------------------|--|
| | ≤ 0.7 kV (at 10 kA) |
| | ≤ 0.55 kV (at 5 kA) |
| | ≤ 0.55 kV (at 3 kA) |
| TOV behavior at U_T | 175 V AC (5 s / withstand mode) |
| | 230 V AC (120 min / safe failure mode) |
| Response time t_A | ≤ 25 ns |
| Max. backup fuse with branch wiring | 125 A AC (gG) |

Connection data

| | |
|-------------------|--------------------------|
| Connection method | VALVETRAB plug-in system |
|-------------------|--------------------------|

UL specifications

| | |
|---|------------------------------------|
| UL class | Type 4 SPD for Type 2 applications |
| Maximum continuous operating voltage MCOV (L-N) | 150 V AC |
| Nom. voltage | 120 V AC |
| Mode of protection | L-N |
| Power distribution system | 1 |
| Nominal frequency | 50/60 Hz |
| Voltage protection rating VPR (L-N) | 0.7 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 | 27130805 |
| eCl@ss 7.0 | 27130805 |
| eCl@ss 8.0 | 27130805 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000941 |
| ETIM 3.0 | EC000941 |
| ETIM 4.0 | EC000941 |
| ETIM 5.0 | EC000941 |

Type 2 surge protection plug - VAL-MS 120 ST - 2807586

Classifications

UNSPSC

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

Approvals

Approvals

Approvals

IECEE CB Scheme / CSA / UL Recognized / KEMA-KEUR / ÖVE / cUL Recognized / GOST / CCA / KEMA-KEUR / cULus Recognized

Ex Approvals

Approvals submitted

Approval details

IECEE CB Scheme

CSA

| | |
|--------------------|-------|
| Nominal voltage UN | 120 V |
|--------------------|-------|


UL Recognized

KEMA-KEUR

Type 2 surge protection plug - VAL-MS 120 ST - 2807586

Approvals


ÖVE 

cUL Recognized 

GOST 

CCA

KEMA-KEUR 

cULus Recognized 

Accessories

Accessories

Bridge

Wiring bridge - MPB F600X16/ 1GS - 2818355



Wiring bridge flexible, diameter: 16 mm², with a fork-type cable lug on one side, length: 600 mm

Type 2 surge protection plug - VAL-MS 120 ST - 2807586

Accessories

Wiring bridge - MPB F400X16/ 1GS - 2818342



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 400 mm

Wiring bridge - MPB F200X16/ 1GS - 2818339



Wiring bridge flexible, diameter 16 mm², with a fork-type cable lug on one side, length: 200 mm

Wiring bridge - MPB 18/1-10/1.0.0 - 2830443



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 10 pitches with contact sequence 1-0-0

Wiring bridge - MPB 18/4-12 - 2809296



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 12-pos.

Wiring bridge - MPB 18/4- 8 - 2809283



Wiring bridge for modules with connecting pitch 17.5 mm, 4-phase, 8-pos.

Type 2 surge protection plug - VAL-MS 120 ST - 2807586

Accessories

Wiring bridge - MPB 18/3- 6 - 2809241



Wiring bridge for modules with connecting pitch 17.5 mm, 3-phase, 6-pos.

Wiring bridge - MPB 18/1-57 - 2809238



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 57-pos.

Wiring bridge - MPB 18/1-12 - 2748593



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 12-pos.

Wiring bridge - MPB 18/1- 9 - 2748580



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 9-pos.

Wiring bridge - MPB 18/1- 8 - 2748577



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 8-pos.

Type 2 surge protection plug - VAL-MS 120 ST - 2807586

Accessories

Wiring bridge - MPB 18/1- 6 - 2748564



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 6-pos.

Wiring bridge - MPB 18/1- 4 - 2809225



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 4-pos.

Wiring bridge - MPB 18/1- 3 - 2809212



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 3-pos.

Wiring bridge - MPB 18/1- 2 - 2809209



Wiring bridge for modules with connecting pitch 17.5 mm, 1-phase, 2-pos.

Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

Type 2 surge protection plug - VAL-MS 120 ST - 2807586

Accessories

Labeled device marker

Marker for terminal blocks - ZBN 18,LGS:ERDE - 2749589



Marker for terminal blocks, Strip, white, labeled, Horizontal: Grounding symbol, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

Marker for terminal blocks - ZBN 18,LGS:L1-N,ERDE - 2749576



Marker for terminal blocks, Strip, white, labeled, Horizontal: L1, L2, L3, N, GND, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

Marker pen

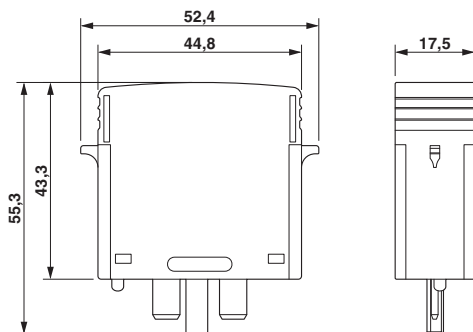
Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Drawings

Dimensioned drawing



Circuit diagram



