# VAL-MS-T1/T2 175/12.5 ST - Type 1/2 surge protection plug

2800676

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L-N replacement plug for VAL-MS-T1/T2 175/12.5 plug-in lighting/surge arrester.

## 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

## Commercial data

| | |
|---|---|
| Item number | 2800676 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | CL18 |
| Product key | CL1151 |
| GTIN | 4046356624350 |
| Weight per piece (including packing) | 80.26 g |
| Weight per piece (excluding packing) | 80 g |
| Customs tariff number | 85363030 |
| Country of origin | DE |

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## Technical data

### Product properties

| | |
|---|---|
| Product type | Replacement plug |
| Product family | VALVETRAB MS |
| IEC test classification | I / II |
| | I |
| | T1 / T2 |
| EN type | T1 / T2 |
| IEC power supply system | TN-C |
| | TN-S |
| | TT |
| Type | Male |
| Surge protection fault message | optical |

Insulation characteristics

| | |
|---|---|
| Overvoltage category | III |
| Pollution degree | 2 |

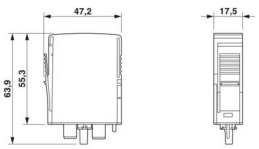
### Electrical properties

| | |
|---|---|
| Nominal frequency $f_N$ | 50 Hz (60 Hz) |
| Nominal voltage $U_N$ | 120 V AC |

### Connection data

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

### Dimensions

| | |
|---|---|
| Dimensional drawing |   |
| Width | 17.5 mm |
| Height | 47 mm |
| Depth | 67.3 mm |
| Horizontal pitch | 1 HP |

### 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-N |
| | L-PEN |
| Direction of action | L-N / L-PEN |
| Nominal voltage $U_N$ | 120/208 V AC (TN-C, TN-S) |
| | 120/208 V AC (TT) |
| Nominal frequency $f_N$ | 50 Hz (60 Hz) |
| Maximum continuous operating voltage $U_C$ | 175 V AC |
| Protective conductor current $I_{PE}$ | ≤ 800 µA |
| Standby power consumption $P_C$ | ≤ 140 mVA |
| Nominal discharge current $I_n$ (8/20) µs | 12.5 kA |
| Maximum discharge current $I_{max}$ (8/20) µs | 50 kA |
| Impulse discharge current (10/350) µs, charge | 6.25 As |
| Impulse discharge current (10/350) µs, specific energy | 39 kJ/Ω |
| Impulse discharge current (10/350) µs, peak value $I_{imp}$ | 12.5 kA |
| Short-circuit current rating $I_{SCCR}$ | 25 kA |
| Voltage protection level $U_p$ | ≤ 0.8 kV |
| Residual voltage $U_{res}$ | ≤ 0.8 kV (at $I_n$) |
| | ≤ 0.7 kV (at 10 kA) |
| | ≤ 0.6 kV (at 5 kA) |
| | ≤ 0.5 kV (at 3 kA) |
| TOV behavior at $U_T$ | 208 V AC (5 s / withstand mode) |
| | 229 V AC (120 min / withstand mode) |
| Response time $t_A$ | ≤ 25 ns |
| Max. backup fuse with branch wiring | 160 A (gG) |

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

## Approvals

### UL specifications

| | |
|---|---|
| Maximum continuous operating voltage MCOV (L-N) | 175 V AC |
| Nominal discharge current $I_n$ (L-N) | 20 kA |
| Mode of protection | L-N |

| | |
|---|---|
| Nominal voltage | 120 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

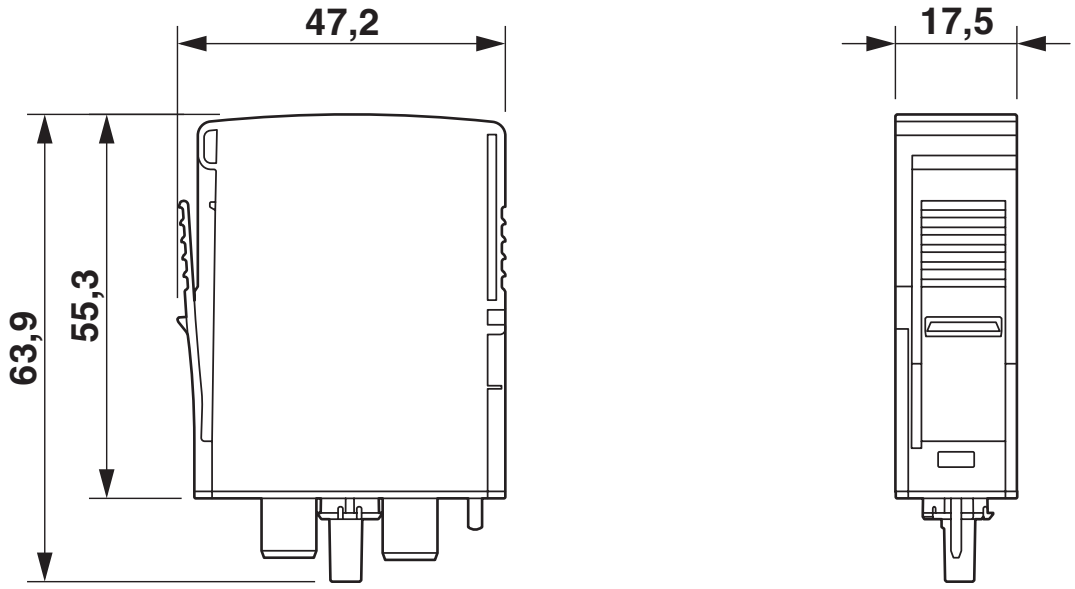
| | |
|---|---|
| Standards/specifications | IEC 61643-11 |
| Note | 2011 |
| Standards/specifications | EN 61643-11 |
| Note | 2012 |

## Mounting

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

## Drawings

Dimensional drawing




Circuit diagram



## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27171292 |
| ECLASS-15.0 | 27171292 |

### ETIM

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

### UNSPSC

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

## 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 | 2.304 kg CO2e |


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