

## Type 2 surge protection plug - VAL-MS 230 IT ST - 2807599

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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)

### Product Features

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



### Key commercial data

|                  |               |
|------------------|---------------|
| package_quantity | 10            |
| GTIN             | 4017918075286 |

### Technical data

#### Dimensions

|            |         |
|------------|---------|
| Height     | 52.4 mm |
| Width      | 17.7 mm |
| Depth      | 54.5 mm |
| Pitch unit | 1 Div.  |

#### Ambient conditions

|                                  |                  |
|----------------------------------|------------------|
| Degree of protection             | IP20             |
| Ambient temperature (operation)  | -40 °C ... 80 °C |
| Permissible humidity (operation) | 5 % ... 95 %     |

#### General

|                                          |                |
|------------------------------------------|----------------|
| Housing material                         | PA             |
| Inflammability class according to UL 94  | V0             |
| Color                                    | black          |
| Standards for air and creepage distances | DIN VDE 0110-1 |
| Standards for air and creepage distances | IEC 60664-1    |

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## Technical data

### General

|                                                                |                                         |
|----------------------------------------------------------------|-----------------------------------------|
| Standards for air and creepage distances                       | VDE 0675-6                              |
| Mounting type                                                  | On base element                         |
| Design                                                         | DIN rail module, two-section, divisible |
| Number of positions                                            | 1                                       |
| Arrester can be tested with CHECKMASTER from software version: | From SW rev. 1.10                       |
| Message: Surge protection fault                                | Optical                                 |
| Direction of action                                            | 1L-N/PE                                 |

### Protective circuit

|                                                                  |                           |
|------------------------------------------------------------------|---------------------------|
| IEC test classification                                          | II                        |
| IEC test classification                                          | T2                        |
| EN type                                                          | T2                        |
| Nominal voltage $U_N$                                            | 230 V AC                  |
| Maximum continuous operating voltage $U_C$                       | 385 V AC                  |
| $U_T$ (TOV-proof)                                                | 415 V AC (5 s)            |
| Nominal frequency $f_N$                                          | 50 Hz (60 Hz)             |
| Residual current $I_{PE}$                                        | $\leq 0.25$ mA            |
| Standby power consumption $P_C$                                  | $\leq 175$ mVA            |
| Max. discharge current $I_{max}$ (8/20) $\mu$ s                  | 40 kA                     |
| Nominal discharge current $I_n$ (8/20) $\mu$ s                   | 20 kA                     |
| Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$ | 3 kA                      |
| Max. energy absorption (2 ms)                                    | 800 J                     |
| Voltage protection level $U_p$                                   | $\leq 1.8$ kV             |
| Residual voltage                                                 | $\leq 1.35$ kV (at 5 kA)  |
| Residual voltage                                                 | $\leq 1.8$ kV (at $I_n$ ) |
| Residual voltage                                                 | $\leq 1.3$ kV (at 3 kA)   |
| Response time                                                    | $\leq 25$ ns              |
| Max. required backup fuse with branch wiring                     | 125 A (gG)                |
| Short-circuit resistance $I_p$ with max. backup fuse (effective) | 25 kA                     |
| Capacity                                                         | 1.9 nF (typ.)             |

### Standards and Regulations

|                       |                      |
|-----------------------|----------------------|
| Standards/regulations | IEC 61643-1 2005     |
| Standards/regulations | EN 61643-11/A11 2007 |
| Standards/regulations | NF C61-740           |

## classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27140201 |
| eCl@ss 4.1 | 27130801 |

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### classifications

#### eCl@ss

|            |          |
|------------|----------|
| 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 |

#### UNSPSC

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

### approvals

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

#### Approval details

|                                                                                                     |
|-----------------------------------------------------------------------------------------------------|
| IECEE CB Scheme  |
|-----------------------------------------------------------------------------------------------------|

|                                                                                         |       |
|-----------------------------------------------------------------------------------------|-------|
| CSA  |       |
|                                                                                         |       |
| Nominal voltage UN                                                                      | 230 V |
| Nominal current IN                                                                      |       |
| mm²/AWG/kcmil                                                                           |       |

|                                                                                                   |
|---------------------------------------------------------------------------------------------------|
| UL Recognized  |
|---------------------------------------------------------------------------------------------------|

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### approvals

KEMA-KEUR 

ÖVE 

cUL Recognized 

GOST 

CCA

cULus Recognized 

### accessories

#### Labeled device marker

ZBN 18,LGS:ERDE - 2749589



ZBN 18,LGS:L1-N,ERDE - 2749576



### Device marking

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### accessories

ZBN 18:UNBEDRUCKT - 2809128



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### Marker pen

B-STIFT - 1051993



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### Bridge

MPB 18/4-12 - 2809296



MPB 18/4- 8 - 2809283



MPB 18/3- 6 - 2809241



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### accessories

MPB 18/1-57 - 2809238



MPB 18/1-12 - 2748593



MPB 18/1- 9 - 2748580



MPB 18/1- 8 - 2748577



MPB 18/1- 6 - 2748564



MPB 18/1- 4 - 2809225



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### accessories

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MPB 18/1- 3 - 2809212



MPB 18/1- 2 - 2809209



MPB F600X16/ 1GS - 2818355



MPB F400X16/ 1GS - 2818342



MPB F200X16/ 1GS - 2818339



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### accessories

MPB 18/1-10/1.0.0 - 2830443



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MPB 18/1-20/1.2.5 - 2830168



### accessories

ZBN 18:SO/CMS - 0800763



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ZBN 18,LGS:L1-N,ERDE - 2830469

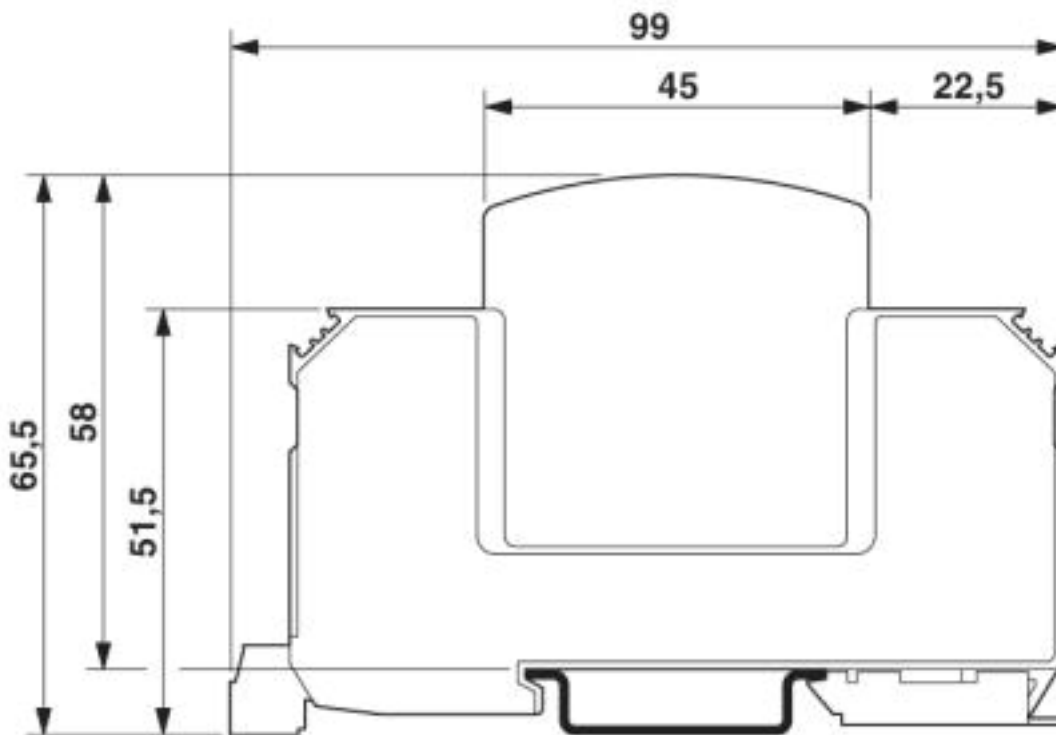


### Drawings



## Type 2 surge protection plug - VAL-MS 230 IT ST - 2807599

Dimensioned drawing



## Type 2 surge protection plug - VAL-MS 230 IT ST - 2807599

Circuit diagram

