

VAL-MS 3+V-BE - Surge protection base-element



2905859

<https://www.phoenixcontact.com/us/products/2905859>

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Base element for surge arresters, for isolated 1000 V DC voltage systems, for DIN rail mounting, 4-pos. base element without remote indication contact, for protecting two parallel strings/MPP trackers.

Commercial data

| | |
|--------------------------------------|--------------------|
| Item number | 2905859 |
| Packing unit | 32 pc |
| Minimum order quantity | 32 pc |
| Product key | CL1231 |
| Catalog page | Page 59 (C-6-2015) |
| GTIN | 4055626002804 |
| Weight per piece (including packing) | 225 g |
| Weight per piece (excluding packing) | 222 g |
| Country of origin | DE |

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Technical data

Notes

General

| | |
|------|---|
| Note | The device is intended for touch proof installation in a housing. Ensure that there is a gap of at least 8 mm between the active and grounded parts in the connection area. |
|------|---|

Product properties

| | |
|--|---|
| IEC test classification | PV T1 PV T2 |
| EN type | T2 |
| Type | Base element, DIN rail mounting |
| Distance between live and grounded parts | 8 mm |
| Product type | Base element |
| Product family | VALVETRAB MB |
| Number of positions | 2 |
| Installation location | Interior |
| Installation location of the disconnect device | Internal |
| Accessibility | Accessible |
| Connection configuration | Y configuration |
| SPD failure behavior | OCFM (Only in combination with VAL-MS...DC-PV-ST) |
| Surge protection fault message | none |

Insulation characteristics

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

Connection data

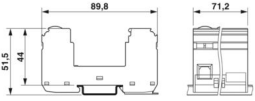
| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Screw thread | M5 |
| Tightening torque | 3 Nm (1.5 mm ² ... 16 mm ²) 4.5 Nm (25 mm ² ... 35 mm ²) |
| Stripping length | 16 mm |
| Conductor cross section flexible | 1.5 mm ² ... 25 mm ² |
| Conductor cross section rigid | 1.5 mm ² ... 35 mm ² |
| Conductor cross section AWG | 15 ... 2 |
| Connection method | Fork-type cable lug |
| Conductor cross section flexible | 1.5 mm ² ... 16 mm ² |

Dimensions

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| | |
|---------------------|--|
| Dimensional drawing |  |
| Width | 71.2 mm |
| Height | 89.8 mm |
| Depth | 51.5 mm (incl. DIN rail 7.5 mm) |
| Horizontal pitch | 4 Div. |

Material specifications

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

Mechanical properties

Mechanical data

| | |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

Protective circuit

| | |
|--------------------------|-------------|
| Mode of protection | (L+) - (L-) |
| | (L+) - PE |
| | (L-) - PE |
| Rated load current I_L | 80 A |

PV protective circuit

| | |
|--------------------------|---|
| Connection configuration | Y configuration |
| SPD failure behavior | OCFM (Only in combination with VAL-MS...DC-PV-ST) |

Protective circuit DC voltage side (DC)

| | |
|--|-----------|
| Rated load current I_L | 80 A |
| Maximum continuous operating voltage U_{CPV} | 1170 V DC |

Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 (only when all terminal points are used) |
| Ambient temperature (operation) | -40 °C ... 80 °C |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Altitude | ≤ 3000 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) |

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Standards and regulations

EN 61643-31

| | |
|--------------------------|--------------|
| Standards/specifications | EN 61643-31 |
| Note | 2019 |
| Standards/specifications | IEC 61643-31 |
| Note | 2018 |

Mounting

| | |
|---------------|-----------------|
| Mounting type | DIN rail: 35 mm |
|---------------|-----------------|

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27130803 |
| ECLASS-13.0 | 27171292 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002496 |
|----------|----------|

UNSPSC

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

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Environmental product compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

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