

VAL-US-480D/30/1+0-FM - Type 1 surge protection device



2910384  
<https://www.phoenixcontact.com/us/products/2910384>

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Surge protective device, single channel with remote indicator contact for 480 V AC DELTA.



Your advantages

- With floating remote indication contact
- Mechanical coding of all slots
- Optical, mechanical status indication for the individual arresters
- Multi-channel type 2 protective devices

Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 2910384            |
| Packing unit                         | 1 pc               |
| Minimum order quantity               | 1 pc               |
| Sales key                            | CL17               |
| Product key                          | CL132U             |
| Catalog page                         | Page 98 (C-4-2019) |
| GTIN                                 | 4055626445229      |
| Weight per piece (including packing) | 159.2 g            |
| Weight per piece (excluding packing) | 133 g              |
| Customs tariff number                | 85363030           |
| Country of origin                    | DE                 |

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## Technical data

### Notes

#### General

| Note |                                                           |
|------|-----------------------------------------------------------|
|      | Additional information for IT systems as used for 2920256 |

### Product properties

|                                          |                                              |
|------------------------------------------|----------------------------------------------|
| Product type                             | Surge protection for NEMA power supply units |
| Product family                           | VALVETRAB US                                 |
| IEC test classification                  | II                                           |
|                                          | T2                                           |
| EN type                                  | T2                                           |
| IEC power supply system                  | TN-C                                         |
|                                          | IT                                           |
| Type                                     | DIN rail module, two-section, divisible      |
| Distance between live and grounded parts | 5 mm                                         |
| Number of positions                      | 1                                            |
| Surge protection fault message           | Optical, remote indicator contact            |

#### Data management status

|                  |    |
|------------------|----|
| Article revision | 04 |
|------------------|----|

#### Insulation characteristics

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

### Electrical properties

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

#### Indicator/remote signaling

|                    |                                |
|--------------------|--------------------------------|
| Connection name    | Remote fault indicator contact |
| Switching function | Changeover contact             |
| Operating voltage  | 5 V AC ... 250 V AC            |
|                    | 30 V DC                        |
| Operating current  | 5 mA AC ... 1.5 A AC           |
|                    | 1 A DC                         |

### Connection data

|                                  |                                                     |
|----------------------------------|-----------------------------------------------------|
| Connection method                | Screw connection                                    |
| Screw thread                     | M5                                                  |
| Tightening torque                | 3 Nm (1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> )  |
|                                  | 4.5 Nm (25 mm <sup>2</sup> ... 35 mm <sup>2</sup> ) |
| Stripping length                 | 16 mm                                               |
| Conductor cross section flexible | 1.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>          |

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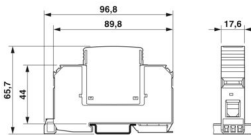
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|                                  |                                            |
|----------------------------------|--------------------------------------------|
| Conductor cross section rigid    | 1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup> |
| Conductor cross section AWG      | 15 ... 2                                   |
| Connection method                | Fork-type cable lug                        |
| Conductor cross section flexible | 1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> |

## Remote fault indicator contact

|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Connection method                | Plug-in/screw connection via COMBICON        |
| Screw thread                     | M2                                           |
| Tightening torque                | 0.25 Nm                                      |
| Stripping length                 | 7 mm                                         |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section rigid    | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 28 ... 16                                    |

## Dimensions

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 17.6 mm                                                                             |
| Height              | 96.8 mm                                                                             |
| Depth               | 65.7 mm (incl. DIN rail 7.5 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/PBT       |
| Material group                         | I                |
| Housing material                       | PA 6.6<br>PBT    |

## Protective circuit

|                                               |               |
|-----------------------------------------------|---------------|
| Mode of protection                            | L-PE          |
| Direction of action                           | 1L-GND        |
| Nominal voltage $U_N$                         | 480 V AC (IT) |
| Nominal frequency $f_N$                       | 50 Hz (60 Hz) |
| Maximum continuous voltage $U_C$              | 580 V AC      |
| Standby power consumption $P_C$               | ≤ 150.00 mVA  |
| Nominal discharge current $I_n$ (8/20) μs     | 15 kA         |
| Maximum discharge current $I_{max}$ (8/20) μs | 30 kA         |
| Short-circuit current rating $I_{SCCR}$       | 25 kA         |

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|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Voltage protection level $U_p$      | $\leq 2.5$ kV                       |
| Residual voltage $U_{res}$          | $\leq 2.5$ kV (at $I_n$ )           |
|                                     | $\leq 2.3$ kV (at 10 kA)            |
|                                     | $\leq 2.1$ kV (at 5 kA)             |
|                                     | $\leq 1.9$ kV (at 3 kA)             |
| TOV behavior at $U_T$               | 690 V AC (5 s / withstand mode)     |
|                                     | 762 V AC (120 min / withstand mode) |
| Max. backup fuse with branch wiring | 125 A (gG)                          |

## 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                                | $\leq 2000$ m (amsl)                                      |
| Permissible humidity (operation)        | 5 % ... 95 %                                              |
| Shock (operation)                       | 25g (Half-sine / 11 ms / 3x $\pm X$ , $\pm Y$ , $\pm Z$ ) |
| Vibration (operation)                   | 5g (10 ... 500 Hz / 2.5 h / X, Y, Z)                      |

## Approvals

### UL specifications

|                                           |                         |
|-------------------------------------------|-------------------------|
| Maximum continuous operating voltage MCOV | 580 V AC                |
| Short-circuit current rating (SCCR)       | 200 kA                  |
| Voltage protection rating VPR             | 2000 V                  |
| UL type                                   | type 1                  |
| Nominal discharge current $I_n$           | 20 kA                   |
| Maximum Surge Current per Phase           | 30 kA                   |
| Mode of protection                        | L-G                     |
| Nominal voltage                           | 480 V AC (Single-phase) |
| Power distribution system                 | Single phase            |
| Nominal frequency                         | 50/60 Hz                |
| SPD Type                                  | 1                       |

### UL indicator/remote signaling

|                      |          |
|----------------------|----------|
| Operating voltage    | 125 V AC |
| AC operating current | 1 A AC   |

### UL connection data

|                             |                        |
|-----------------------------|------------------------|
| Tightening torque           | 30 lb <sub>F</sub> in. |
| Conductor cross section AWG | 14 ... 2               |

## Standards and regulations

### Air clearances and creepage distances

|                       |                          |
|-----------------------|--------------------------|
| Standards/regulations | EN 60664-1 / EN 61643-11 |
|-----------------------|--------------------------|

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

## Mounting

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

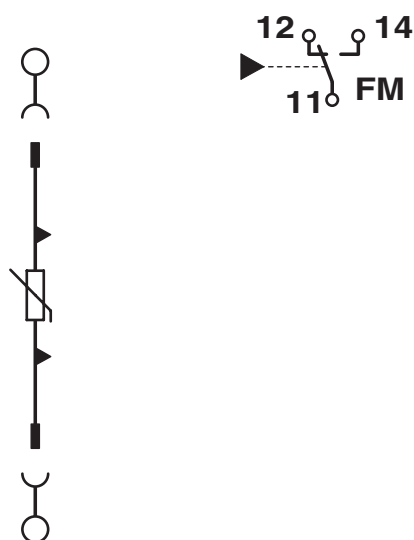
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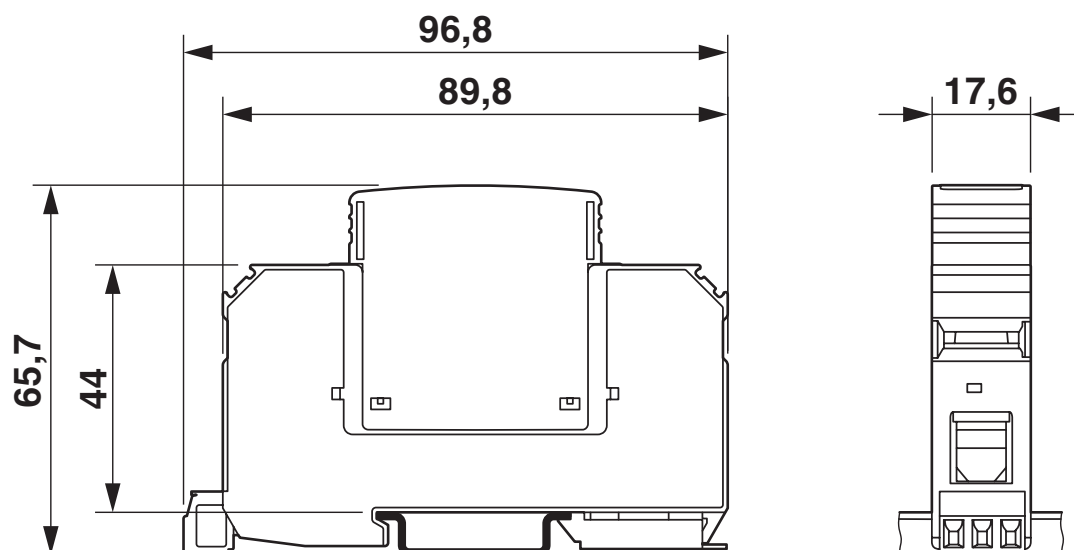
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## Drawings

Circuit diagram



Dimensional drawing



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2910384>



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



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

**cULus Listed**

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27130805 |
| ECLASS-13.0 | 27171202 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000941 |
|----------|----------|

### UNSPSC

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

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## 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%               |

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