

# VAL-US-600D/30/2+0-FM - Type 1 surge protection device



2910390

<https://www.phoenixcontact.com/us/products/2910390>

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 documentation. Our general terms of use for downloads are valid.



Surge protective device, two channel with remote indicator contact for 600 V AC corner-grounded DELTA.

## Your advantages

- Multi-channel type 2 protective devices
- Mechanical coding of all slots
- Optical, mechanical status indication for the individual arresters
- Disconnect device on each individual plug
- Type 2 consistent plug-in surge arresters

## Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 2910390            |
| Packing unit                         | 1 pc               |
| Minimum order quantity               | 1 pc               |
| Sales key                            | CL17               |
| Product key                          | CL132U             |
| Catalog page                         | Page 98 (C-4-2019) |
| GTIN                                 | 4055626445274      |
| Weight per piece (including packing) | 278 g              |
| Weight per piece (excluding packing) | 255 g              |
| Customs tariff number                | 85363030           |
| Country of origin                    | DE                 |

# VAL-US-600D/30/2+0-FM - Type 1 surge protection device



2910390

<https://www.phoenixcontact.com/us/products/2910390>

## 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 | 8 mm                                         |
| Number of positions                      | 2                                            |
| 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>          |

# VAL-US-600D/30/2+0-FM - Type 1 surge protection device



2910390

<https://www.phoenixcontact.com/us/products/2910390>

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| 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               | 35.6 mm                         |
| Height              | 96.8 mm                         |
| Depth               | 65.7 mm (incl. DIN rail 7.5 mm) |
| Horizontal pitch    | 2 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                           | 2L-GND        |
| Nominal voltage $U_N$                         | 600 V AC (IT) |
| Nominal frequency $f_N$                       | 50 Hz (60 Hz) |
| Maximum continuous voltage $U_C$              | 750 V AC      |
| Standby power consumption $P_C$               | ≤ 400.00 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         |

# VAL-US-600D/30/2+0-FM - Type 1 surge protection device



2910390

<https://www.phoenixcontact.com/us/products/2910390>

|                                     |                                         |
|-------------------------------------|-----------------------------------------|
| Voltage protection level $U_p$      | $\leq 2.9$ kV                           |
| Residual voltage $U_{res}$          | $\leq 2.9$ kV (at $I_n$ )               |
|                                     | $\leq 2.7$ kV (at 10 kA)                |
|                                     | $\leq 2.5$ kV (at 5 kA)                 |
|                                     | $\leq 2.3$ kV (at 3 kA)                 |
| TOV behavior at $U_T$               | 1000 V AC (5 s / withstand mode)        |
|                                     | 1056 V AC (120 min / safe failure mode) |
| Max. backup fuse with branch wiring | 100 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 (L-L) | 750 V AC                                 |
| Maximum continuous operating voltage MCOV (L-G) | 750 V AC                                 |
| Short-circuit current rating (SCCR)             | 200 kA                                   |
| Voltage protection rating VPR (L-L)             | 4000 V                                   |
| Voltage protection rating VPR (L-G)             | 2500 V                                   |
| UL type                                         | type 1                                   |
| Nominal discharge current $I_n$                 | 20 kA                                    |
| Maximum Surge Current per Phase                 | 30 kA                                    |
| Mode of protection                              | L-L                                      |
|                                                 | L-G                                      |
| Nominal voltage                                 | 600 V AC (3-phase corner-grounded Delta) |
| Power distribution system                       | Delta                                    |
| 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                |

# VAL-US-600D/30/2+0-FM - Type 1 surge protection device



2910390  
<https://www.phoenixcontact.com/us/products/2910390>

## Standards and regulations

### Air clearances and creepage distances

|                          |                          |
|--------------------------|--------------------------|
| Standards/regulations    | EN 60664-1 / EN 61643-11 |
| Standards/specifications | IEC 61643-11             |
| Note                     | 2011                     |
| Standards/specifications | EN 61643-11              |
| Note                     | 2012                     |

## Mounting

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

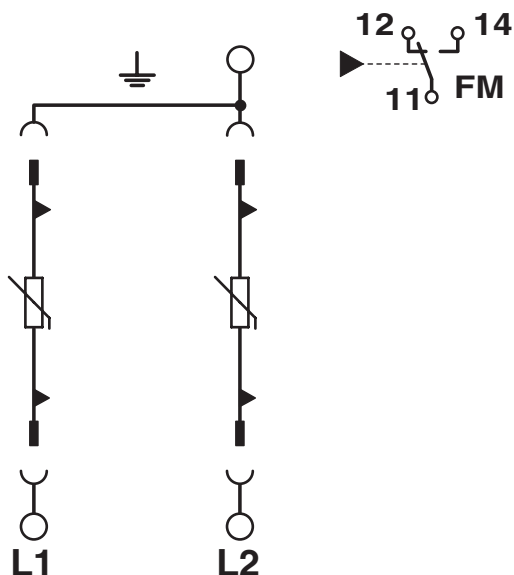
# VAL-US-600D/30/2+0-FM - Type 1 surge protection device

2910390

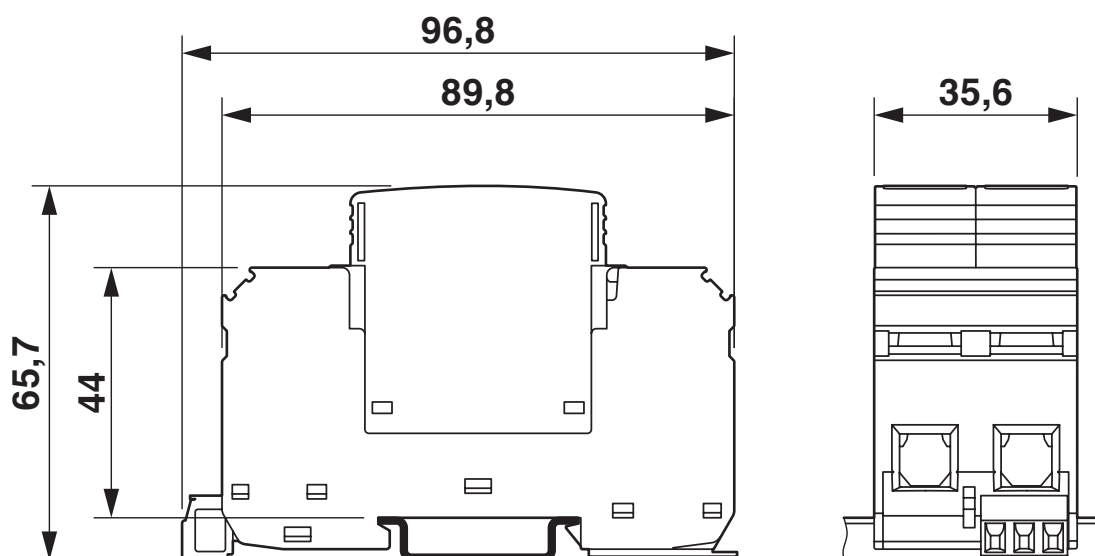
<https://www.phoenixcontact.com/us/products/2910390>

## Drawings

Circuit diagram



Dimensional drawing



# VAL-US-600D/30/2+0-FM - Type 1 surge protection device



2910390  
<https://www.phoenixcontact.com/us/products/2910390>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2910390>

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

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

cULus Listed

# VAL-US-600D/30/2+0-FM - Type 1 surge protection device



2910390  
<https://www.phoenixcontact.com/us/products/2910390>

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

# VAL-US-600D/30/2+0-FM - Type 1 surge protection device



2910390  
<https://www.phoenixcontact.com/us/products/2910390>

## 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%               |

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

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