

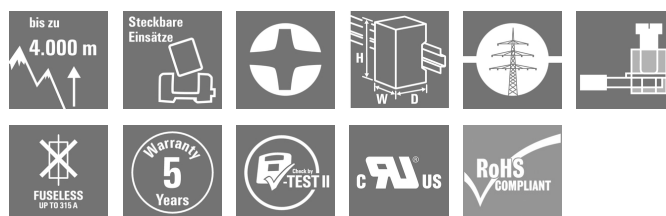
**VPU AC II 3 R 350/50**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Weidmüller VPU I (Type I), VPU II (Type II) and VPU III (Type III) surge protection products effectively reduce the interference coupling that can occur due to transient surge voltages, even significantly below the limits prescribed by insulation co-ordination according to EN 60664-3 / DIN VDE 0110-3. This means that the whole installation is exposed to fewer malfunctions. The arresters are co-ordinated using technical means. This means that decoupling between Types I, II and III is unnecessary. The arresters are tested according to product standard IEC 61643-11 / DIN EN 61643-11 and can be installed in systems according to IEC 61643-12 / VDE 0675-6-12 and IEC 62305-4 / VDE 0185-4. This lightning and surge protection device is suited for installation in power supply systems. Weidmüller offers different products depending on the particular mains network type and voltage level. A special Type I and Type II protective device is even available for photovoltaic applications.

**General ordering data**

|                   |                                                                                  |
|-------------------|----------------------------------------------------------------------------------|
| Version           | Surge voltage arrester, Low voltage, Surge protection, with remote contact, TN-C |
| Order No.         | <a href="#">2591110000</a>                                                       |
| Type              | VPU AC II 3 R 350/50                                                             |
| GTIN (EAN)        | 4050118599824                                                                    |
| Qty.              | 1 pc(s).                                                                         |
| Replacement parts | <a href="#">2591340000</a> <a href="#">2855300000</a>                            |

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## Technical data

## Dimensions and weights

|                          |            |                |            |
|--------------------------|------------|----------------|------------|
| Depth                    | 68 mm      | Depth (inches) | 2.677 inch |
| Depth including DIN rail | 76 mm      | Height         | 104.5 mm   |
| Height (inches)          | 4.114 inch | Width          | 54 mm      |
| Width (inches)           | 2.126 inch | Net weight     | 402 g      |

## Temperatures

|                     |                       |                       |                |
|---------------------|-----------------------|-----------------------|----------------|
| Storage temperature | -40 °C...85 °C        | Operating temperature | -40 °C...85 °C |
| Humidity            | 5 - 95% rel. humidity |                       |                |

## Rated data UL

|                                                |                              |              |              |
|------------------------------------------------|------------------------------|--------------|--------------|
| Ambient temperature (operational), max. 85 °C  | Rated Voltage U <sub>N</sub> | 277 V        |              |
| MCOV (L-PE)                                    | 350 V                        | SCCR         | 200 kA       |
| I <sub>n</sub>                                 | 20 kA                        | Category     | SPD TYPE 1CA |
| Ambient temperature (operational), min. -40 °C | Certificate No. (cURus)      | E3542610000  |              |
| MODE                                           | all modes                    | VPR (L-L)    | 2,000 V      |
| VPR (L-PE)                                     | 1,000 V                      | Voltage type | AC           |
| UL Energy Networks                             | 3-phase WYE                  |              |              |

## Connection data, remote alert

|                                                    |                      |                                                    |                     |
|----------------------------------------------------|----------------------|----------------------------------------------------|---------------------|
| Connection type                                    | PUSH IN              | Cross-section for connected wire, solid core, max. | 1.5 mm <sup>2</sup> |
| Cross-section for connected wire, solid core, min. | 0.14 mm <sup>2</sup> | Stripping length                                   | 8 mm                |

## General data

|                 |               |                   |                         |
|-----------------|---------------|-------------------|-------------------------|
| Number of poles | 3             | Protection degree | IP20 in installed state |
| Colour          | orange, black |                   |                         |

## Insulation coordination acc. to EN 50178

|                    |   |                        |     |
|--------------------|---|------------------------|-----|
| Pollution severity | 2 | Surge voltage category | III |
|--------------------|---|------------------------|-----|

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## Technical data

## Rated data IEC / EN

|                                                    |                                                                                        |                                                     |                                               |
|----------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------|
| Combined pulse $U_{OC}$                            | 6 kV                                                                                   | Discharge current (type III)                        | 3 kA                                          |
| Discharge current $I_{max}$ (8/20 $\mu$ s) wire-PE | 50 kA                                                                                  | Discharge current $I_n$ (8/20 $\mu$ s) wire-PE      | 20 kA                                         |
| Energy coordination ( $\leq 10$ m)                 | Type II, Type III                                                                      | Follow-on current extinguishing capability $I_{fi}$ | Follow current need not be taken into account |
| Frequency range, max.                              | 60 Hz                                                                                  | Frequency range, min.                               | 50 Hz                                         |
| Fuse                                               | No Fuse necessary $\leq 315$ A gG, 250 A gG @50 kA $I_{sc}$ , 315 A gG @25 kA $I_{sc}$ | Integrated back-up fuse                             | No                                            |
| Leakage current at $U_n$                           | 0.5 mA                                                                                 | Low voltage network                                 | TN-C                                          |
| Max. continuous voltage, $U_c$ (AC)                | 350 V                                                                                  | Number of poles                                     | 3                                             |
| Protection level $U_p$ at $I_N$ (L/N-PE)           | $\leq 1.75$ kV                                                                         | Rated voltage (AC)                                  | 230 V                                         |
| Requirements category acc. to IEC 61643-11         | Type II, Type III                                                                      | Requirements class, acc. to EN 61643-11             | T2, T3                                        |
| Response time                                      | $\leq 25$ ns                                                                           | SPD type                                            | T2                                            |
| Short-circuit current rating $I_{SCCR}$            | 50 kA                                                                                  | Signalling contact                                  | 250 V 1A 1CO                                  |
| Standards                                          | IEC 61643-11, EN 61643-11, UL 1449                                                     | Temporary surge voltage (over-voltage) - TOV        | 403 V                                         |
| Voltage type                                       | AC                                                                                     |                                                     |                                               |

## Connection data

|                                                      |                    |                                                      |                     |
|------------------------------------------------------|--------------------|------------------------------------------------------|---------------------|
| Stripping length                                     | 18 mm              | Wire connection method                               | Screw connection    |
| Type of connection                                   | Screw connection   | Stripping length, rated connection                   | 18 mm               |
| Tightening torque, min.                              | 3 Nm               | Tightening torque, max.                              | 4.5 Nm              |
| Clamping range, rated connection                     | 16 mm <sup>2</sup> | Clamping range, min.                                 | 1.5 mm <sup>2</sup> |
| Clamping range, max.                                 | 35 mm <sup>2</sup> | Wire connection cross section AWG, min.              | AWG 16              |
| Wire connection cross section AWG, max.              | AWG 2              | Wire cross-section, solid, min.                      | 1.5 mm <sup>2</sup> |
| Wire cross-section, solid, max.                      | 16 mm <sup>2</sup> | Wire connection cross section, finely stranded, min. | 1.5 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, max. | 25 mm <sup>2</sup> | Connection cross-section, stranded, min.             | 1.5 mm <sup>2</sup> |
| Connection cross-section, stranded, max.             | 35 mm <sup>2</sup> |                                                      |                     |

## Electrical data

|              |    |
|--------------|----|
| Voltage type | AC |
|--------------|----|

## Guarantee

|               |         |
|---------------|---------|
| Time interval | 5 years |
|---------------|---------|

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC000941    | ETIM 7.0    | EC000941    |
| ETIM 8.0    | EC000941    | ETIM 9.0    | EC000941    |
| ETIM 10.0   | EC000941    | ECLASS 9.0  | 27-13-08-05 |
| ECLASS 9.1  | 27-13-08-05 | ECLASS 10.0 | 27-13-08-05 |
| ECLASS 11.0 | 27-13-08-05 | ECLASS 12.0 | 27-17-90-90 |
| ECLASS 13.0 | 27-17-90-90 | ECLASS 14.0 | 27-17-90-90 |
| ECLASS 15.0 | 27-17-90-90 |             |             |

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Environmental Product Compliance**

|                        |                             |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC             | No SVHC above 0.1 wt%       |

**Important note**

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| Product information | For use in DC applications, please use the fuse of SIBA Type NH2XL aR/aSF DC 1500 V |
|---------------------|-------------------------------------------------------------------------------------|

**Approvals**

Approvals



|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals MAMID | <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319263/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319263/-T1z1mm-S800/</a> |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                         |             |
|-------------------------|-------------|
| ROHS                    | Conform     |
| UL File Number Search   | UL Website  |
| Certificate No. (cURus) | E3542610000 |

**Downloads**

|                                             |                                                                         |
|---------------------------------------------|-------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">EU_Konformitätserklärung / EU_Declaration_of_Conformity</a> |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                         |
| User Documentation                          | <a href="#">Beipackzettel / Instruction sheet</a>                       |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                |

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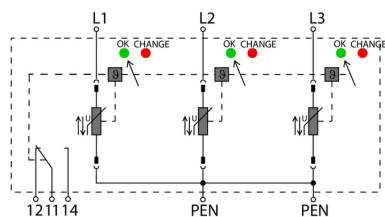
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## Drawings

### Electric symbol



Schematic circuit diagram