

## VPU AC II US 3 R 277/50

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com



Picture similar

- compact SPD to install in application by NFPA 79
- no additional overcurrent protection devices needed
- short circuit current rating (SCCR) up to 200 kA
- tested according to IEC/EN 61643-11 and UL 1449 4.Ed

### General ordering data

|            |  |
|------------|--|
| Version    | Surge voltage arrester, Low voltage, Surge protection, with remote contact, TN-C |
| Order No.  | <a href="#">2730600000</a>   |
| Type       | VPU AC II US 3 R 277/50  |
| GTIN (EAN) | 4050118807509  |
| Qty.       | 1 items  |

## VPU AC II US 3 R 277/50

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

## Technical data

### Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate no. (cULus) E354261

### Dimensions and weights

|                          |             |                             |             |
|--------------------------|-------------|-----------------------------|-------------|
| Depth                    | 68 mm       | Depth (inches)              | 2.6772 inch |
| Depth including DIN rail | 76 mm       | Height                      | 104.5 mm    |
| Height (inches)          | 4.1142 inch | Width                       | 54 mm       |
| Width (inches)           | 2.126 inch  | Mounting dimension - height | 75 mm       |
| Net weight               | 387 g       |                             |             |

### Temperatures

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

### Environmental Product Compliance

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

### Rated data UL

|   |        |                                    |             |
|---|--------|------------------------------------|-------------|
| Ambient temperature (operational), max. | 85 °C  | Rated Voltage UN                   | 277 V       |
| MCOV (L-PE)                             | 350 V  | SCCR                               | 200 kA      |
| In                                      | 20 kA  | Category                           | SPD TYPE 1  |
| Connection cross-section AWG, min.      | AWG 14 | Connection cross-section AWG, max. | AWG 6       |
| Ambient temperature (operational), min. | -40 °C | MODE                               | all modes   |
| VPR (L-L)                               | 2000 V | VPR (L-PE)                         | 1000 V      |
| Voltage type                            | AC     | UL Energy Networks                 | 3-phase WYE |

### Connection data, remote alert

|  |                      |  |         |
|--|----------------------|--|---------|
| Cross-section for connected wire, solid core, min.       | 0.25 mm <sup>2</sup> | Stripping length   | 12 mm   |
| Cross-section for connected wire, solid core, max. (AWG) | AWG 10               | 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. (AWG) | AWG 30  |

### General data

|                           |   |               |  |
|---------------------------|---|---------------|--|
| Optical function display  | green = OK; red = arrester is defective - replace | Segment       | Power distribution                     |
| Version                   | Surge protection, with remote contact             | Design        | Installation housing; 3TE, Insta IP 20 |
| UL 94 flammability rating | V-0   | Colour        | orange, black                          |
| Protection degree         | IP20 in installed state                           | Mounting rail | TS 35                                  |
| Operating altitude        | ≤ 4000 m  |               |  |

## VPU AC II US 3 R 277/50

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

## Technical data

### Insulation coordination acc. to EN 50178

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

### Rated data IEC / EN

|   |   |  |   |
|---|---|--|---|
| Number of poles                                     | 3   | Leakage current at $U_n$                       | 0.5 mA  |
| Signalling contact                                  | 250 V 1A 1CO, No                              | Rated voltage (AC)                             | 277 V   |
| Low voltage network                                 | TN-C  | Voltage type                                   | AC  |
| Temporary surge voltage (over-voltage) - TOV        | 403 V   | Fuse protection                                | No Fuse necessary $\leq 315$ A gG, 250 A gG @50 kA<br>Iscrr, 315 A gG @25 kA<br>Iscrr |
| Response time / fallback time                       | $\leq 25$ ns                                  | Frequency range, max.                          | 60 Hz   |
| Frequency range, min.                               | 50 Hz   | Standards                                      | IEC 61643-11, EN 61643-11, UL 1449, NFPA 79   |
| Requirements class, acc. to EN 61643-11             | T2, T3  | Requirements category acc. to IEC 61643-11     | Type II   |
| Max. continuous voltage, $U_c$ (AC)                 | 350 V   | Mains voltage                                  | 277 V / 480 V   |
| Energy coordination ( $\leq 10$ m)                  | Type II, Type III                             | Discharge current $I_n$ (8/20 $\mu$ s) wire-PE | 20 kA   |
| Discharge current $I_{max}$ (8/20 $\mu$ s) wire-PE  | 50 kA   | SPD type                                       | T2  |
| Protection level $U_p$ at IN (L/N-PE)               | $\leq 1.75$ kV                                | Short-circuit current rating ISCCR             | 50 kA   |
| Follow-on current extinguishing capability $I_{fi}$ | Follow current need not be taken into account | Integrated back-up fuse                        | No  |

### 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.                            | 35 mm <sup>2</sup> | Wire connection cross section, finely stranded, min.       | 4 mm <sup>2</sup>   |
| Wire connection cross section, finely stranded, max.       | 25 mm <sup>2</sup> | Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 2.5 mm <sup>2</sup> |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 35 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 |
|--------------|----|

### General data

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

### Ratings IECEx/ATEX/cUL

|                         |         |
|-------------------------|---------|
| Certificate no. (cULus) | E354261 |
|-------------------------|---------|

## VPU AC II US 3 R 277/50

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany

[www.weidmueller.com](http://www.weidmueller.com)

## Technical data

### Guarantee

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

### Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC000941    | ETIM 9.0    | EC000941    |
| ETIM 10.0   | EC000941    | ECLASS 14.0 | 27-17-12-02 |
| ECLASS 15.0 | 27-17-12-02 |             |             |

Electric symbol



Schematic circuit diagram