

# PVT1 Photovoltaic Surge Protection Class I+II



## CERTIFICATIONS



## FEATURES

Uniquely designed for protection of centralized solar inverters on the DC input side and string boxes

Thermal protection included to ensure safe failure modes

Compact, yet high surge rated pluggable design, using minimum DIN rail width

## SPECIFICATIONS

| Catalog Number                          | PVT11000R             | PVT11500R          |
|-----------------------------------------|-----------------------|--------------------|
| Max Continuous Operating Voltage (Ucpv) | 1100                  | 1500               |
| Nominal Discharge Current (In), IEC     | 20kA 8/20 $\mu$ s     | 20kA 8/20 $\mu$ s  |
| Impulse Current (Iimp)                  | 6.25kA 10/350 $\mu$ s | 5kA 10/350 $\mu$ s |
| Total Discharge Current (Itotal)        | 12.5<br>50            | 10<br>40           |
| Voltage Protection Level (Up)           | 4000V                 | 5000V              |
| Response Time                           | 25 ns Max             | 25 ns Max          |
| Short Circuit Current Rating (Isccr)    | 11kA                  | 11kA               |

| Catalog Number                          | PVT11000R                                                                            | PVT11500R                                                                            |
|-----------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Max Continuous Operating Voltage (Vpdc) | 1,100 VDC                                                                            | 1,500 VDC                                                                            |
| Voltage Protection Rating (VPR)         | 2500V                                                                                | 4000V                                                                                |
| Nominal Discharge Current (In), UL      | 20kA 8/20 $\mu$ s                                                                    | 20kA 8/20 $\mu$ s                                                                    |
| Short Circuit Current Rating (SCCR)     | 50kA                                                                                 | 65kA                                                                                 |
| Protection Modes                        | -ve to PE<br>-ve to +ve<br>+ve to PE                                                 | -ve to PE<br>-ve to +ve<br>+ve to PE                                                 |
| Altitude                                | 2000 m Max                                                                           | 2000 m Max                                                                           |
| Humidity                                | 5 - 95                                                                               | 5 - 95                                                                               |
| Temperature                             | -40 to 85 °C                                                                         | -40 to 85 °C                                                                         |
| Connection, Flexible                    | 25 mm <sup>2</sup>                                                                   | 25 mm <sup>2</sup>                                                                   |
| Connection, Solid                       | 35 mm <sup>2</sup>                                                                   | 35 mm <sup>2</sup>                                                                   |
| Connection, Stranded                    | 35 mm <sup>2</sup>                                                                   | 35 mm <sup>2</sup>                                                                   |
| Enclosure Material                      | UL® 94V-0 Thermoplastic                                                              | UL® 94V-0 Thermoplastic                                                              |
| Enclosure Rating                        | IP 20                                                                                | IP 20                                                                                |
| Mounting                                | 35 mm top hat DIN rail                                                               | 35 mm top hat DIN rail                                                               |
| Remote Contact Switching Capacity       | 1 A @ 125 VAC<br>1 A @ 250 VAC<br>0.5 A @ 12 VDC<br>0.5 A @ 24 VDC<br>0.5 A @ 48 VDC | 1 A @ 125 VAC<br>1 A @ 250 VAC<br>0.5 A @ 12 VDC<br>0.5 A @ 24 VDC<br>0.5 A @ 48 VDC |
| Remote Contacts                         | Yes                                                                                  | Yes                                                                                  |
| Status Indication                       | Mechanical flag                                                                      | Mechanical flag                                                                      |
| Depth (D)                               | 85mm                                                                                 | 85mm                                                                                 |
| Height (H)                              | 90 mm                                                                                | 90 mm                                                                                |
| Width (W)                               | 54 mm                                                                                | 54 mm                                                                                |
| Unit Weight                             | 0.46 kg                                                                              | 0.5 kg                                                                               |
| Replacement Module                      | PVT1500M<br>PVT1500SM                                                                | PVT1750M<br>PVT1750SM                                                                |
| Certification Details                   | UL® 1449 Edition 4 Type 1CA                                                          | UL® 1449 Edition 4 Type 1CA                                                          |
| Complies With                           | EN IEC 61643-31, Type 1, Type 2                                                      | EN IEC 61643-31, Type 1, Type 2                                                      |

DIAGRAMS



WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at [www.nvent.com](http://www.nvent.com) and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

North America

+1.800.753.9221  
Option 1 – Customer Care  
Option 2 – Technical  
Support

Europe

Netherlands:  
+31 800-0200135  
France:  
+33 800 901 793

Europe

Germany:  
800 1890272  
Other Countries:  
+31 13 5835404

APAC

Shanghai:  
+ 86 21 2412 1618/19  
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