

# PVT1 Photovoltaic Surge Protection Class I+II

## Power Utilities



### 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

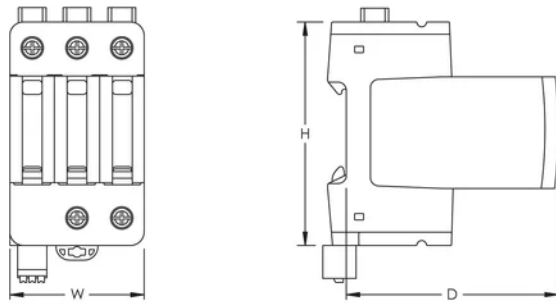
### SPECIFICATIONS

| Catalog Number                                       | PVT11000R                            | PVT11500R                        |
|------------------------------------------------------|--------------------------------------|----------------------------------|
| Max Continuous Operating Voltage (Uc <sub>pv</sub> ) | 1,100 V                              | 1,500 VDC                        |
| Nominal Discharge Current (I <sub>n</sub> ), IEC     | 20 kA 8/20 μs                        | 20 kA 8/20 μs                    |
| Impulse Current (I <sub>imp</sub> )                  | 6.25 kA 10/350 μs                    | 5 kA 10/350 μs                   |
| Total Discharge Current (I <sub>total</sub> )        | 12.5 kA 10/350 μs<br>50.0 kA 8/20 μs | 10 kA 10/350 μs<br>40 kA 8/20 μs |
| Voltage Protection Level (U <sub>p</sub> )           | 4,000 V                              | 5,000 V                          |

| Catalog Number                          | PVT11000R                                                                                | PVT11500R                                                                                |
|-----------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Response Time                           | 25 ns Max                                                                                | 25 ns Max                                                                                |
| Short Circuit Current Rating (Isccr)    | 11 kA                                                                                    | 11 kA                                                                                    |
| Max Continuous Operating Voltage (Vpdc) | 1,100 VDC                                                                                | 1,500 VDC                                                                                |
| Voltage Protection Rating (VPR)         | 2,500 V                                                                                  | 4,000 V                                                                                  |
| Nominal Discharge Current (In), UL      | 20 kA 8/20 µs                                                                            | 20 kA 8/20 µs                                                                            |
| Short Circuit Current Rating (SCCR)     | 50 kA                                                                                    | 65 kA                                                                                    |
| 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                                | 2,000 m Max                                                                              | 2,000 m Max                                                                              |
| Humidity                                | 5 – 95 % RH                                                                              | 5 – 95 % RH                                                                              |
| 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 Rating                        | IP 20                                                                                    | IP 20                                                                                    |
| Remote Contact Switching Capacity       | 1.0 A @ 125 VAC<br>1.0 A @ 250 VAC<br>0.5 A @ 12 VDC<br>0.5 A @ 24 VDC<br>0.5 A @ 48 VDC | 1.0 A @ 125 VAC<br>1.0 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                                                                          |
| Height (H)                              | 90 mm                                                                                    | 90 mm                                                                                    |
| Width (W)                               | 54 mm                                                                                    | 54 mm                                                                                    |
| Unit Weight                             | 0.460 kg                                                                                 | 0.500 kg                                                                                 |
| Replacement Module                      | PVT1500M<br>PVT1500SM                                                                    | PVT1750M<br>PVT1750SM                                                                    |
| Certification Details                   | UL® 1449 Edition 5 Type 1CA                                                              | UL® 1449 Edition 5 Type 1CA                                                              |

## DIAGRAMS

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## WARNING

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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.



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