

# PVT2 Photovoltaic Surge Protection Class II



## CERTIFICATIONS



## FEATURES

Suited for use at the DC input of distributed string inverters in solar arrays

Thermal protection included to ensure safe failure modes

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

## SPECIFICATIONS

| Catalog Number                          | PVT21000R         | PVT21500R         |
|-----------------------------------------|-------------------|-------------------|
| Max Continuous Operating Voltage (Ucpv) | 1100              | 1500              |
| Nominal Discharge Current (In), IEC     | 20kA 8/20 $\mu$ s | 20kA 8/20 $\mu$ s |
| Max Discharge Current (Imax)            | 40kA 8/20 $\mu$ s | 30kA 8/20 $\mu$ s |
| Total Discharge Current (Itotal)        | 50                | 40                |
| Voltage Protection Level (Up)           | 4000V             | 5000V             |
| Response Time                           | 25 ns Max         | 25 ns Max         |
| Short Circuit Current Rating (Isccr)    | 11kA              | 11kA              |

| Catalog Number                          | PVT21000R                                                                            | PVT21500R                                                                            |
|-----------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 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)                               | 69mm                                                                                 | 69mm                                                                                 |
| Height (H)                              | 90 mm                                                                                | 90 mm                                                                                |
| Width (W)                               | 54 mm                                                                                | 54 mm                                                                                |
| Unit Weight                             | 0.41 kg                                                                              | 0.45 kg                                                                              |
| Replacement Module                      | PVT2500M                                                                             | PVT2750M                                                                             |
| Certification Details                   | UL® 1449 Edition 4 Type 1CA                                                          | UL® 1449 Edition 4 Type 1CA                                                          |
| Complies With                           | EN 50539-11 Type 2                                                                   | EN 50539-11 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.

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