

Overvoltage Protection

ProTec T2 3+0

Class II • Type 2 • Type 1CA



Location of Use: Sub-Distribution Boards
 Network Systems: TN-C
 Mode of Protection: L-PEN
 IEC/EN/UL Category: Class II / Type 2 / Type 1CA
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012
 UL 1449 4th Edition

Technical Data

| ProTec T2-xxx-3+0(-R) | | 150 | 300 | 350 | 480 | 550* | 750 |
|---|------------|------------------|-----------|-----------|-----------|-----------|-----------|
| IEC Electrical | | | | | | | |
| Nominal AC Voltage (50/60Hz) | U_o/U_n | 120V | 240V | 277V | 400V | 480V | 600V |
| Maximum Continuous Operating Voltage (AC) | U_c | 150V | 300V | 350V | 480V | 550V | 750V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Maximum Discharge Current (8/20 μ s) | I_{max} | 50 kA | 50 kA | 50 kA | 50 kA | 50 kA | 35 kA |
| Voltage Protection Level | U_p | 1250V | 1500V | 1750V | 2300V | 2500V | 3400V |
| Response Time | t_A | < 25 ns | | | | | |
| Overcurrent Protection (max) | | 315 A / 250 A gG | | | | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | 25 kA / 50 kA | | | | | |
| TOV Withstand 5s | U_T | 229V | 337V | 403V | 581V | 697V | 871V |
| TOV 120min | U_T | 229V | 442V | 529V | 762V | 915V | 1143V |
| | mode | Withstand | Safe Fail | Safe Fail | Safe Fail | Safe Fail | Safe Fail |
| Number of Ports | | 1 | | | | | |

| | | | | | | | |
|---|-------|--------|--------|--------|--------|--------|--------|
| UL Electrical | | | | | | | |
| Maximum Continuous Operating Voltage (AC) | MCOV | 150V | 300V | 350V | 480V | 550V | 750V |
| Voltage Protection Rating | VPR | 600V | 900V | 1000V | 1500V | 2000V | 2500V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA | 20 kA |
| Short-Circuit Current Rating (AC) | SCCR | 200 kA | 150 kA | 200 kA | 200 kA | 200 kA | 200 kA |

| | | | | | | | |
|---------------------------------------|-----------|--|--|--|--|--|--|
| Mechanical & Environmental | | | | | | | |
| Operating Temperature Range | T_a | -40 °F to +185 °F [-40 °C to +85 °C] | | | | | |
| Permissible Operating Humidity | RH | 5%...95% | | | | | |
| Altitude (max) | | 13123 ft [4000 m] | | | | | |
| Terminal Screw Torque | M_{max} | 39.9 lbf-in [4.5 Nm] | | | | | |
| Conductor Cross Section (max) | | 2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible) | | | | | |
| Mounting | | 35 mm DIN Rail, EN 60715 | | | | | |
| Degree of Protection | | IP 20 (built-in) | | | | | |
| Housing Material | | Thermoplastic: Extinguishing Degree UL 94 V-0 | | | | | |
| Thermal Protection | | Yes | | | | | |
| Operating State / Fault Indication | | Green Flag / Not Green Flag | | | | | |
| Remote Contacts (RC) | | Optional | | | | | |
| RC Switching Capacity | | AC: 250V/1A, 125V/1A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A | | | | | |
| RC Conductor Cross Section (max) | | 16 AWG (Solid) / 1.5 mm ² (Solid) | | | | | |

| Order Information | | | | | | | |
|--|--|---------|---------|---------|---------|---------|---------|
| Order Code | | 150 | 300 | 350 | 480 | 550* | 750 |
| ProTec T2-xxx-3+0 | | 59.0091 | 59.0093 | 59.0095 | 59.0097 | 59.0681 | 59.0099 |
| ProTec T2-xxx-3+0-R (with remote contacts) | | 59.0092 | 59.0094 | 59.0096 | 59.0098 | 59.0682 | 59.0100 |
| ProTec T2-xxx-P (plug) | | 59.0064 | 59.0065 | 59.0066 | 59.0067 | 59.0685 | 59.0068 |

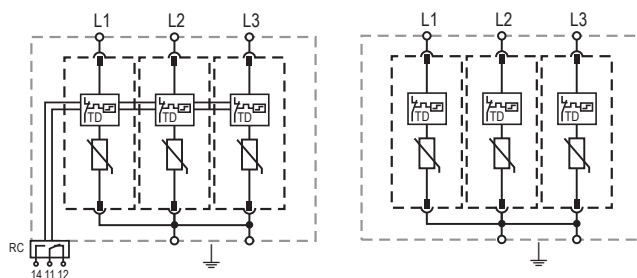
*UL listed, no IEC/EN certification.

ProTec T2 3+0

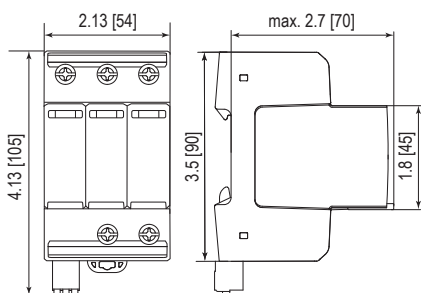
Internal Configuration

Legend

- L Line Conductor Terminal
- ⏏ PE/G Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnect



Complete Unit

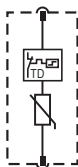


Complete Unit Dimensions & Packaging

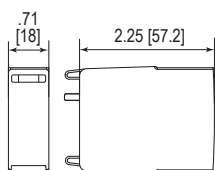
| | | 150 | 300 | 350 | 480 | 550* | 750 |
|------------------------------|--------|--|------|------|------|------|------|
| ProTec T2-xxx-3+0 | Weight | pounds | .780 | .800 | .833 | .873 | .890 |
| | | grams | 354 | 363 | 378 | 396 | 404 |
| ProTec T2-xxx-3+0-R | | | | | | | |
| Weight | pounds | .800 | .820 | .853 | .892 | .913 | .985 |
| | grams | 363 | 372 | 387 | 405 | 414 | 447 |
| DIN 43880 Dimension | | 3 TE / 2.13" [54] | | | | | |
| Packaging Dimensions (HxWxL) | | 4.3 x 4.5 x 13.8" [109 x 115 x 352 mm] | | | | | |
| Standard Order Quantity | | 5 Units | | | | | |

Plug Internal Configuration

ProTec T2-xxx-P



Spare Plug



Single Unit Dimensions & Packaging

| | | 150 | 300 | 350 | 480 | 550* | 750 |
|------------------------------|--------|-------------------------------------|------|------|------|------|------|
| ProTec T2-xxx-P | Weight | pounds | .123 | .130 | .141 | .154 | .163 |
| | | grams | 56 | 59 | 64 | 70 | 74 |
| DIN 43880 Dimension | | 1 TE / .71" [18] | | | | | |
| Packaging Dimensions (HxWxL) | | 3.2 x 4.5 x 12" [83 x 115 x 305 mm] | | | | | |
| Standard Order Quantity | | 24 Units | | | | | |

inches
[mm]