

Overvoltage Protection
ProTec T2-ADV 1+0
Class II • Type 2 • Type 1CA



Location of Use: Sub-Distribution Boards
 Network Systems: TN-S, TN-C, TT (only L-N)
 Mode of Protection: L-PE, N-PE (only TN-S), L-PEN, L-N
 IEC/EN/UL Category: Class II / Type 2 / Type 1CA
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition

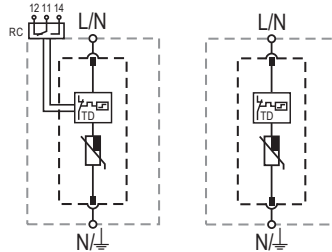
Technical Data

| ProTec T2-ADV-xxx-1+0(-R) | | 75 | 150 | 300 | 350 | 480 |
|--|------------|--|-----------|-----------|-----------|-----------|
| IEC Electrical | | | | | | |
| Nominal AC Voltage (50/60Hz) | U_o/U_n | 60V | 120V | 240V | 277V | 400V |
| Maximum Continuous Operating Voltage (AC) | U_c | 75V | 150V | 300V | 350V | 480V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20kA | 20kA | 20kA | 20kA | 20kA |
| Maximum Discharge Current (8/20 μ s) | I_{max} | 50kA | 50kA | 50kA | 50kA | 50kA |
| Voltage Protection Level | U_p | 600V | 1000V | 1300V | 1700V | 2000V |
| Response Time | t_A | < 25ns | | | | |
| Overcurrent Protection (max) | | 160A gG | | | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | 50kA | | | | |
| TOV Withstand 5s | U_T | 114V | 229V | 337V | 403V | 581V |
| TOV 120min | U_T | 114V | 229V | 442V | 528V | 762V |
| | mode | Withstand | Withstand | Safe Fail | Safe Fail | Safe Fail |
| Number of Ports | | 1 | | | | |
| UL Electrical | | | | | | |
| Maximum Continuous Operating Voltage (AC) | MCOV | 75V | 150V | 300V | 350V | 480V |
| Voltage Protection Rating | VPR | 400V | 600V | 900V | 1200V | 1500V |
| Nominal Discharge Current (8/20 μ s) | I_n | 20kA | 20kA | 20kA | 20kA | 20kA |
| Short-Circuit Current Rating (AC) | SCCR | 100kA | 200kA | 150kA | 200kA | 200kA |
| Additional Electrical Parameters - Standard (Tests performed within Raycap testing laboratory only) | | | | | | |
| Residual Voltage at 5 kA (8/20 μ s) | U_{res} | 400V | 700V | 1000V | 1300V | 1600V |
| Overcurrent Protection (min) | | 80A gG | | | | |
| Additional Electrical Parameters - Extended (Additionally tested by VDE) | | | | | | |
| Short-Circuit Current Rating (AC) | I_{SCCR} | 100kA | | | | |
| Overcurrent Protection (max) | | 160A gG | | | | |
| 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 [4000m] | | | | |
| Terminal Screw Torque | M_{max} | 40 lbf-in [4.5Nm] | | | | |
| 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) | | | | |

Internal Configuration

Legend

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



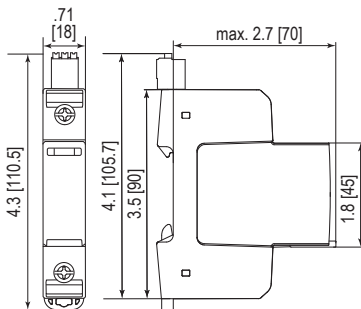
ProTec T2-ADV-xxx-1+0(-R)

Order Information

| Order Code | 75 | 150 | 300 | 350 | 480 |
|--|---------|---------|---------|---------|---------|
| ProTec T2-ADV-xxx-1+0 | 59.0208 | 59.0210 | 59.0212 | 59.0214 | 59.0216 |
| ProTec T2-ADV-xxx-1+0-R (with remote contacts) | 59.0209 | 59.0211 | 59.0213 | 59.0215 | 59.0217 |
| ProTec T2-ADV-xxx-P (plug) | 59.0202 | 59.0203 | 59.0204 | 59.0205 | 59.0206 |

Dimensions & Packaging

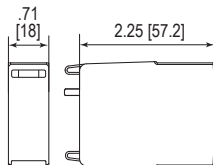
inches [mm]



Complete Unit

| ProTec T2-ADV-xxx-1+0 | 75 | 150 | 300 | 350 | 480 | |
|--------------------------------|--|------|------|------|------|------|
| Weight | pounds | .266 | .275 | .291 | .302 | .304 |
| | grams | 121 | 125 | 132 | 137 | 144 |
| ProTec T2-ADV-xxx-1+0-R | | | | | | |
| Weight | pounds | .283 | .291 | .306 | .317 | .328 |
| | grams | 128 | 132 | 139 | 144 | 149 |
| DIN 43880 Dimension | 1 TE / .71" [18] | | | | | |
| Packaging Dimensions (HxWxL) | 4.3 x 4.5 x 13.8" [109 x 115 x 352 mm] | | | | | |
| Standard Order Quantity | 12 Units | | | | | |

Spare Plug



Single Unit

| ProTec T2-ADV-xxx-P | 75 | 150 | 300 | 350 | 480 | |
|------------------------------|-------------------------------------|------|------|------|------|------|
| Weight | pounds | .120 | .127 | .143 | .154 | .165 |
| | grams | 54 | 58 | 65 | 70 | 75 |
| DIN 43880 Dimension | 1 TE / .71" [18] | | | | | |
| Packaging Dimensions (HxWxL) | 3.2 x 4.5 x 12" [83 x 116 x 305 mm] | | | | | |
| Standard Order Quantity | 24 Units | | | | | |