

Overvoltage Protection **ProTec T2-ADV 3+0**

Class II • Type 2 • Type 1CA • Open Type 1 SPD Listed



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
 Open Type 1 SPD Listed
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition

Technical Data

ProTec T2-ADV-xxx-3+0(-R) & ProTec T2-ADV-xxx-3+0(-US)(-R)

150 300 350 480

IEC Electrical

Nominal AC Voltage (50/60Hz)	U_o/U_n	120V	240V	277V	400V
Maximum Continuous Operating Voltage (AC)	U_c	150V	300V	350V	480V
Nominal Discharge Current (8/20 μ s)	I_n	20kA	20kA	20kA	20kA
Maximum Discharge Current (8/20 μ s)	I_{max}	50kA	50kA	50kA	50kA
Voltage Protection Level	U_p	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	229V	337V	403V	581V
TOV 120min	U_T	229V	442V	528V	762V
	mode	Withstand	Safe Fail	Safe Fail	Safe Fail

Number of Ports

1

UL Electrical

Maximum Continuous Operating Voltage (AC)	MCOV	150V	300V	350V	480V
Voltage Protection Rating	VPR	600V	900V	1200V	1500V
Nominal Discharge Current (8/20 μ s)	I_n	20kA	20kA	20kA	20kA
Short-Circuit Current Rating (AC)	SCCR	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}	700V	1000V	1300V	1600V
Overcurrent Protection (min)		80A gG			

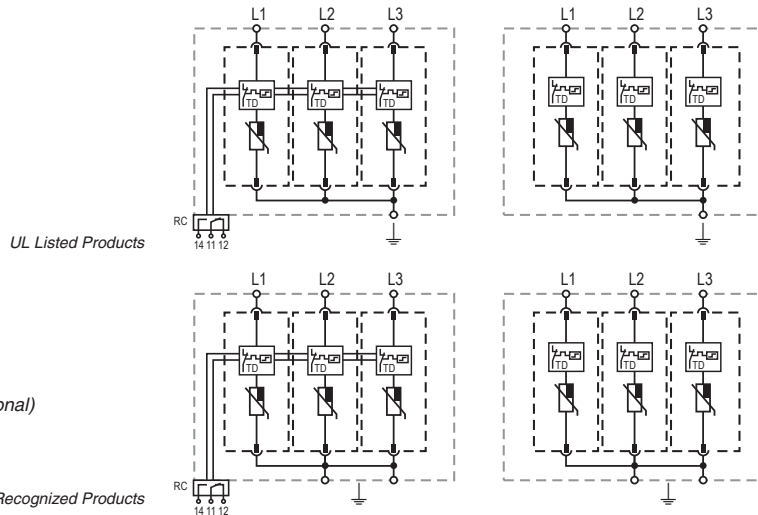
Additional Electrical Parameters - Extended (Additionally tested by VDE)

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}	35 lbf-in per UL 1499 [4.5 Nm]			
Conductor Cross Section (max)		6 AWG (Solid, Stranded) per UL 1449 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)		10 AWG (Solid, Stranded) per UL 1449 [1.5 mm ² (Solid)]			

Internal Configuration



Legend

- L Line Conductor Terminal
- ⊥ PEN/G Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnecter

ProTec T2-ADV-xxx-3+0(-R)

Order Information VDE Certified and UL Recognized Products

Order Code	150	300	350	480
ProTec T2-ADV-xxx-3+0	59.0228	59.0230	59.0232	59.0234
ProTec T2-ADV-xxx-3+0-R (with remote contacts)	59.0229	59.0231	59.0233	59.0235
ProTec T2-ADV-xxx-P (plug)	59.0203	59.0204	59.0205	59.0206

ProTec T2-ADV-xxx-3+0-US(-R)

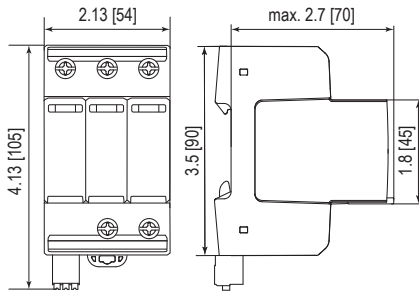
For UL Listed products one PE/G Conductor Terminal is covered/closed.

Order Information VDE Certified and Open Type 1 UL Listed Products

Order Code	150	300	350	480
ProTec T2-ADV-xxx-3+0-US	59.B155	59.B157	59.B159	59.B161
ProTec T2-ADV-xxx-3+0-US-R (with remote contacts)	59.B156	59.B158	59.B160	59.B162
ProTec T2-ADV-xxx-P (plug)	59.0203	59.0204	59.0205	59.0206

Dimensions & Packaging

inches [mm]



Complete Unit UL Recognized Products

ProTec T2-ADV-xxx-3+0	150	300	350	480	
Weight	pounds	.807	.853	.886	.919
	grams	366	387	402	417

ProTec T2-ADV-xxx-3+0-R

Weight	pounds	.829	.875	.908	.941
	grams	376	397	412	427

Complete Unit UL Listed Products

ProTec T2-ADV-xxx-3+0-US	150	300	350	480	
Weight	pounds	.787	.833	.866	.899
	grams	357	378	393	408

ProTec T2-ADV-xxx-3+0-US-R

Weight	pounds	.809	.855	.888	.921
	grams	367	388	403	418

DIN 43880 Dimension

3 TE / 2.13" [54]

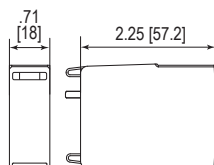
Packaging Dimensions (HxWxL)

4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]

Standard Order Quantity

5 Units

Spare Plug



Single Unit Dimensions & Packaging

ProTec T2-ADV-xxx-P	150	300	350	480	
Weight	pounds	.127	.143	.154	.165
	grams	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