

# Overvoltage Protection

## ProTec T2-ADV 3+1

### Class II • Type 2 • Type 1CA



Location of Use: Sub-Distribution Boards  
 Network Systems: TT, TN-S  
 Mode of Protection: L-N, N-PE  
 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-ADV-xxx-3+1(-R)

300

350

#### IEC Electrical

Parameter	Symbol	300	350
Nominal AC Voltage (50/60Hz)	$U_o/U_n$	240V	277V
Maximum Continuous Operating Voltage (AC)	(L-N) $U_c$	300V	350V
	(N-PE) $U_c$	305V	305V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_n$	20kA / 40kA	20kA / 40kA
Maximum Discharge Current (8/20 $\mu$ s)	(L-N)/(N-PE) $I_{max}$	50kA / 65kA	50kA / 65kA
Voltage Protection Level	(L-N)/(N-PE) $U_p$	1300V / 1500V	1700V / 1500V
Follow Current Interrupt Rating	(N-PE) $I_{fi}$	100 A <sub>RMS</sub>	
Response Time	(L-N)/(N-PE) $t_A$	< 25 ns / < 100 ns	
Overcurrent Protection (max)		160 A gG	
Short-Circuit Current Rating (AC)	$I_{SCCR}$	50 kA	
TOV Withstand 5s	(L-N) $U_T$	337V	403V
TOV 120min	(L-N) $U_T$	mode	Safe Fail
		mode	Safe Fail
TOV Withstand 200ms	(N-PE) $U_T$	1200V	
Number of Ports		1	

#### UL Electrical

Parameter	Symbol	300	350
Maximum Continuous Operating Voltage (AC)	(L-N)/(N-G) MCOV	300V / 305V	350V / 305V
Voltage Protection Rating	(L-N)/(N-G) VPR	900V / 1000V	1200V / 1000V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N)/(N-G) $I_n$	20kA / 20kA	
Short-Circuit Current Rating (AC)	(L-N) SCCR	150kA	200kA

#### 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	$M_{max}$	39.9 lbf-in [4.5 Nm]	
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible)	
		35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (Flexible)	
Mounting		35mm 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 <sup>2</sup> (Solid)	

#### Order Information

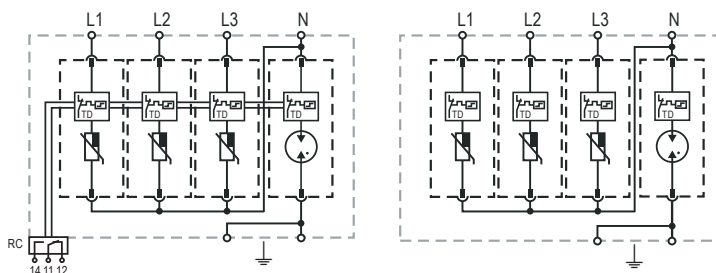
Order Code	300	350
ProTec T2-ADV-xxx-3+1	59.0256	59.0258
ProTec T2-ADV-xxx-3+1-R (with remote contacts)	59.0257	59.0259
ProTec T2-ADV-xxx-P (plug L-N)	59.0204	59.0205
ProTube T2-ADV-40-P (plug N-PE)	59.0275	59.0275

## ProTec T2-ADV 3+1

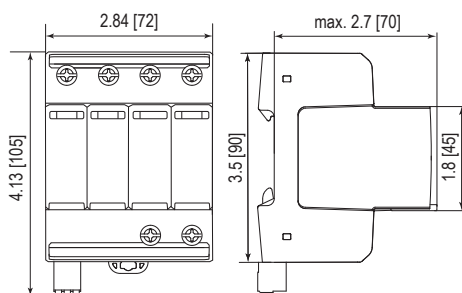
### Internal Configuration

#### Legend

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



### Complete Unit

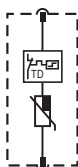


#### Complete Unit Dimensions & Packaging

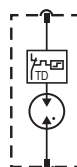
		300	350
ProTec T2-ADV-xxx-3+1	Weight	pounds 1.060	1.093]
		grams 481	496
ProTec T2-ADV-xxx-3+1-R			
Weight	pounds	1.080	1.113
	grams	490	505
DIN 43880 Dimension		4 TE / 2.84" [72]	
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]	
Standard Order Quantity		4 Units	

### Plug Internal Configuration

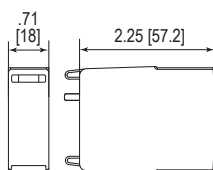
#### ProTec T2-ADV-xxx-P



#### ProTube T2-ADV-40-P



### Spare Plug



#### Single Unit Dimensions & Packaging

		300	350
ProTec T2-ADV-xxx-P	Weight	pounds .143	.154
		grams 65	70
ProTube T2-ADV-40-P			40
Weight	pounds	.093	
	grams	42	
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]