

Pluggable Single Pole & Multi-pole Surge Protective Devices (SPDs)



Overvoltage Protection

SafeTec T2

Special features:

- High temporary overvoltage (TOV) immunity
- High maximum discharge current capacity (I_{max}) of 50 kA
- State-of-the-art thermal disconnecter
- Continuous power to the equipment at end-of-life (EOL)
- AC current up to 880V
- Back-up fuse up to 315A gG
- Short circuit current rating up to 50kA
- Vibration and shock withstand capability
- All modules, including N-PE with operating state green-red
- Optional remote contact (RC) signaling
- Worldwide thermal control (TC) technology



IEC 61643-11:2011

EN 61643-11:2012+A11:2018

UL 1449 5th Edition



Temporary overvoltages (TOV) are by far the most frequent cause of arrester failure by abnormal overvoltages of the power network (50/60 Hz) with significant duration and amplitude. The SafeTec product family is a reliable solution for all transient overvoltages. This multi-purpose single pole arrester features the industry's widest range and an unprecedented level of integration, enabling power systems to have improved surge protection, simplified designs and lower overall costs. The thermal control (TC) technology function prolongs the lifespan of the SPDs, enables TOV immunity and provides low protection level, all at the same dimensions as conventional protective devices.

The universal features of SafeTec make the technology suitable for protection of electrical devices caused switching operations that originate from the internal power system. In addition to the visual mechanical indicator, the optional remote contact (RC) features a three-pole remote signaling terminal enabling remote monitoring of the operating state of the device.



More Product Information

RoHS
COMPLIANT



Overvoltage Protection

SafeTec T2 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-N, L-PE, N-PE (only TN-S), L-PEN
 IEC/EN/UL Category: Class II / Type 2 / Type 1CA
 Safety: Current Limiting Technology
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition



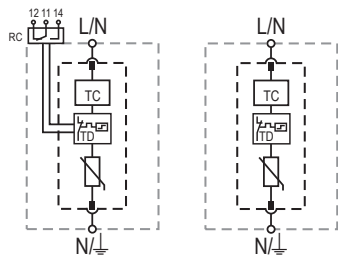
Technical Data

SafeTec T2-xxx-1+0(-R)			75	150	300	350	480	550	750	880
IEC Electrical										
Nominal AC Voltage (50/60Hz)	U _o /U _n	60V	120V	240V	277V	400V	400V	600V	600V	
Maximum Continuous Operating Voltage (AC)	U _c	75V	150V	300V	350V	480V	550V	750V	880V	
Nominal Discharge Current (8/20μs)	I _n	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20μs)	I _{max}	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	35 kA	35 kA	
Voltage Protection Level	U _p	800V	1250V	1650V	1750V	2300V	2500V	3500V	3600V	
Response Time	t _A	< 25 ns								
Overvoltage Category		III								
Overcurrent Protection (max)		315 A/250 A gG								
Short-Circuit Current Rating (AC)	I _{SCCR}	25 kA/50 kA								
TOV Withstand 120min	U _T	150V	255V	442V	529V	762V	918V	1200V	1250V	
Number of Ports		1								
UL Electrical										
Maximum Continuous Operating Voltage (AC)	MCOV	75V	150V	300V	350V	480V	550V	750V	880V	
Voltage Protection Rating	VPR	600V	700V	1200V	1200V	1500V	1800V	2500V	2500V	
Nominal Discharge Current (8/20μs)	I _n	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Short-Circuit Current Rating (AC)	SCCR	100kA	200kA	150 kA	200 kA	200 kA	200 kA	200 kA	100 kA	
Additional Electrical Parameters <i>(Tests performed within Raycap testing laboratory only)</i>										
Residual Voltage at 5 kA (8/20 μs)	U _{res}	400V	750V	1000V	1300V	1600V	1900V	2700V	2800V	
Minimum Backup fuse, if required		80A gG								
Mechanical & Environmental										
Operating Temperature Range	T _a	-40 °F to +185 °F [-40 °C to +85 °C]								
Permissible Operating Humidity	RH	5%...95%								
Pollution Degree		2								
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 mm² (Solid, Stranded) / 25 mm² (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 mm² (Solid)								
Overvoltage Category		III								

Internal Configuration

Legend

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

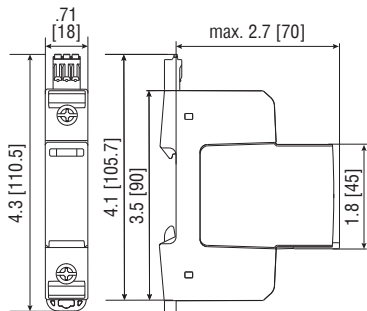


Order Information

Order Code	75	150	300	350	480	550	750	880
SafeTec T2-xxx-1+0	59.0132	59.0134	59.0136	59.0138	59.0140	59.0142	59.0144	59.0146
SafeTec T2-xxx-1+0-R (with remote contacts)	59.0133	59.0135	59.0137	59.0139	59.0141	59.0143	59.0145	59.0147
SafeTec T2-xxx-P (plug)	59.0125	59.0126	59.0127	59.0128	59.0129	59.0299	59.0130	59.0131

Dimensions & Packaging

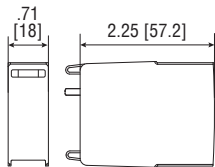
inches [mm]



Complete Unit

SafeTec T2-xxx-1+0	75	150	300	350	480	550	750	880
Weight	pounds	.279	.290	.297	.314	.317	.328	.345
	grams	127	132	135	143	144	149	157
SafeTec T2-xxx-1+0-R	75	150	300	350	480	550	750	880
Weight	pounds	.295	.306	.312	.330	.332	.343	.361
	grams	134	139	142	150	151	156	164
DIN 43880 Dimension 1 TE / .71" [18 mm]								
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

SafeTec T2-xxx-P	75	150	300	350	480	550	750	880
Weight	pounds	.128	.139	.146	.163	.165	.176	.194
	grams	58	63	66	74	75	80	88
DIN 43880 Dimension 1 TE / .71" [18 mm]								
Packaging Dimensions (HxWxL) 3.2 x 4.5 x 12" [83 x 116 x 305 mm]								
Standard Order Quantity 24 Units								

Overvoltage Protection

SafeTec T2 2+0

Class II • Type 2 • Type 1CA



Location of Use: Sub-distribution Boards
 Network Systems: TN-S
 Mode of Protection: L-N, N-PE
 IEC/EN/UL Category: Class II / Type 2 / Type 1CA
 Safety: Current Limiting Technology
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition



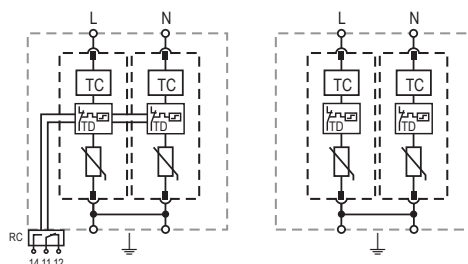
Technical Data

SafeTec T2-xxx-2+0(-R)			75	150	300	350	480	550	750	880
IEC Electrical										
Nominal AC Voltage (50/60Hz)	U _o /U _n	60V	120V	240V	277V	400V	400V	600V	600V	
Maximum Continuous Operating Voltage (AC)	U _c	75V	150V	300V	350V	480V	550V	750V	880V	
Nominal Discharge Current (8/20μs)	I _n	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20μs)	I _{max}	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	35 kA	35 kA	
Voltage Protection Level	U _p	800V	1250V	1650V	1750V	2300V	2500V	3500V	3600V	
Response Time	t _A	< 25 ns								
Overvoltage Category		III								
Overcurrent Protection (max)		315 A/250 A gG								
Short-Circuit Current Rating (AC)	I _{SCCR}	25 kA/50 kA								
TOV Withstand 120min	U _T	150V	255V	442V	529V	762V	918V	1200V	1250V	
Number of Ports		1								
UL Electrical										
Maximum Continuous Operating Voltage (AC)	MCOV	75V	150V	300V	350V	480V	550V	750V	880V	
Voltage Protection Rating	VPR	600V	700V	1200V	1200V	1500V	1800V	2500V	2500V	
Nominal Discharge Current (8/20μs)	I _n	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Short-Circuit Current Rating (AC)	SCCR	100kA	200kA	150 kA	200kA	200kA	200kA	200 kA	200 kA	200 kA
Additional Electrical Parameters <i>(Tests performed within Raycap testing laboratory only)</i>										
Residual Voltage at 5 kA (8/20 μs)	U _{res}	400V	750V	1000V	1300V	1600V	1900V	2700V	2800V	
Minimum Backup fuse, if required		80A gG								
Mechanical & Environmental										
Operating Temperature Range	T _a	-40 °F to +185 °F [-40 °C to +85 °C]								
Permissible Operating Humidity	RH	5%...95%								
Pollution Degree		2								
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 mm² (Solid, Stranded) / 25 mm² (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/1 A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A								
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5 mm² (Solid)								
Overvoltage Category		III								

Internal Configuration

Legend

<i>L</i>	Line Conductor Terminal
<i>N</i>	Neutral Conductor Terminal
	PE/G Conductor Terminal
<i>RC</i>	Remote Contacts Terminal (Optional)
<i>TC</i>	Thermal Control Function
<i>TD</i>	Thermal Disconnect

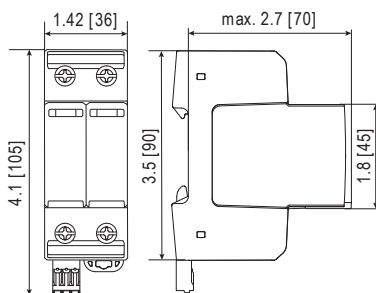


Order Information

Order Code	75	150	300	350	480	550	750	880
SafeTec T2-xxx-2+0	59.0345	59.0148	59.0150	59.0152	59.0154	59.0156	59.0158	59.0160
SafeTec T2-xxx-2+0-R (with remote contacts)	59.0346	59.0149	59.0151	59.0153	59.0155	59.0157	59.0159	59.0161
SafeTec T2-xxx-P (plug)	59.0125	59.0126	59.0127	59.0128	59.0129	59.0299	59.0130	59.0131

Dimensions & Packaging

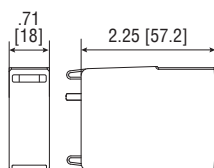
inches [mm]



Complete Unit

SafeTec T2-xxx-2+0	75	150	300	350	480	550	750	880
Weight	pounds	.565	.587	.600	.636	.640	.662	.697
	grams	256	266	272	288	290	300	316
SafeTecT2-xxx-2+0-R								
Weight	pounds	.585	.607	.620	.655	.660	.682	.717
	grams	265	275	281	297	299	309	325
DIN 43880 Dimension	2 TE / 1.42" [36 mm]							
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]							
Standard Order Quantity	7 Units							

Spare Plug



Single Unit

SafeTec T2-xxx-P	75	150	300	350	480	550	750	880
Weight	pounds	.128	.139	.146	.163	.165	.176	.194
	grams	58	63	66	74	75	80	88
DIN 43880 Dimension	1 TE / .71" [18 mm]							
Packaging Dimensions (HxWxL)	3.2 x 4.5 x 12" [83 x 116 x 305 mm]							
Standard Order Quantity	24 Units							

Overvoltage Protection

SafeTec 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
 Safety: Current Limiting Technology
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition



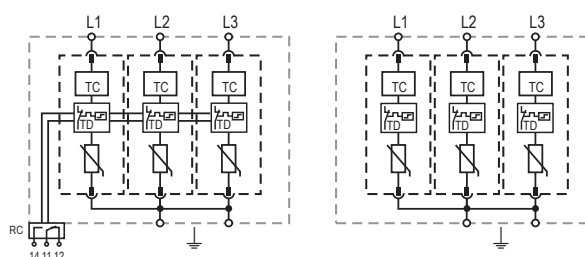
Technical Data

SafeTec T2-xxx-3+0(-R)		150	300	350	480	550	750	880
IEC Electrical								
Nominal AC Voltage (50/60Hz)	U _o /U _n	120 V	240 V	277 V	400 V	400 V	600 V	600 V
Maximum Continuous Operating Voltage (AC)	U _c	150 V	300 V	350 V	480 V	550 V	750 V	880 V
Nominal Discharge Current (8/20μs)	I _n	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20μs)	I _{max}	50 kA	50 kA	50 kA	50 kA	50 kA	35 kA	35 kA
Voltage Protection Level	U _p	1250 V	1650 V	1750 V	2300 V	2500 V	3500 V	3600 V
Response Time	t _A	< 25 ns						
Overvoltage Category		III						
Overcurrent Protection (max)		315 A/250 A gG						
Short-Circuit Current Rating (AC)	I _{SCCR}	25 kA/50 kA						
TOV Withstand 120min	U _T	255 V	442 V	529 V	762 V	918 V	1200 V	1250 V
Number of Ports		1						
UL Electrical								
Maximum Continuous Operating Voltage (AC)	MCOV	150 V	300 V	350 V	480 V	550 V	750 V	880 V
Voltage Protection Rating	VPR	700V	1200V	1200V	1500V	1800V	2500V	2500V
Nominal Discharge Current (8/20μs)	I _n	20 kA	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	200 kA
Additional Electrical Parameters <i>(Tests performed within Raycap testing laboratory only)</i>								
Residual Voltage at 5 kA (8/20 μs)	U _{res}	750V	1000V	1300V	1600V	1900V	2700V	2800V
Minimum Backup fuse, if required		80A gG						
Mechanical & Environmental								
Operating Temperature Range	T _a	-40 °F to +185 °F [-40 °C to +85 °C]						
Permissible Operating Humidity	RH	5%...95%						
Pollution Degree		2						
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 mm² (Solid, Stranded) / 25 mm² (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/1 A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A						
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5 mm² (Solid)						
Overvoltage Category		III						

Internal Configuration

Legend

L	Line Conductor Terminal
⏏	PEN/G Conductor Terminal
RC	Remote Contacts Terminal (Optional)
TC	Thermal Control Function
TD	Thermal Disconnect

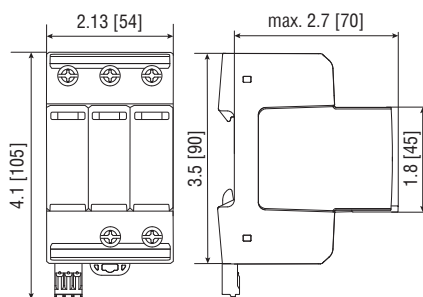


Order Information

Order Code	150	300	350	480	550	750	880
SafeTec T2-xxx-3+0	59.0162	59.0164	59.0166	59.0168	59.0170	59.0172	59.0174
SafeTec T2-xxx-3+0-R (with remote contacts)	59.0163	59.0165	59.0167	59.0169	59.0171	59.0173	59.0175
SafeTec T2-xxx-P (plug)	59.0126	59.0127	59.0128	59.0129	59.0299	59.0130	59.0131

Dimensions & Packaging

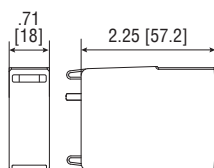
inches [mm]



Complete Unit

SafeTec T2-xxx-3+0	150	300	350	480	550	750	880
Weight	pounds	.846	.866	.919	.926	.959	1.012
	grams	384	393	417	420	435	465
SafeTec T2-xxx-3+0-R	150	300	350	480	550	750	880
Weight	pounds	.866	.886	.939	.946	.979	1.031
	grams	393	402	426	429	444	468
DIN 43880 Dimension	3 TE / 2.13" [54 mm]						
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

SafeTec T2-xxx-P	150	300	350	480	550	750	880
Weight	pounds	.139	.146	.163	.165	.176	.194
	grams	63	66	74	75	80	88
DIN 43880 Dimension	1 TE / .71" [18 mm]						
Packaging Dimensions (HxWxL)	3.2 x 4.5 x 12" [83 x 116 x 305 mm]						
Standard Order Quantity	24 Units						

Overvoltage Protection

SafeTec T2 4+0

Class II • Type 2 • Type 1CA



Location of Use: Sub-distribution Boards
 Network Systems: TN-S
 Mode of Protection: L-PE, N-PE
 IEC/EN/UL Category: Class II / Type 2 / Type 1CA
 Safety: Current Limiting Technology
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition



Technical Data

SafeTec T2-xxx-4+0(-R)

		150	300	350	480	550
IEC Electrical						
Nominal AC Voltage (50/60Hz)	U_o/U_n	120 V	240 V	277 V	400 V	400 V
Maximum Continuous Operating Voltage (AC)	U_c	150 V	300 V	350 V	480 V	550 V
Nominal Discharge Current (8/20 μ s)	I_n	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
Voltage Protection Level	U_p	1250 V	1650 V	1750 V	2300 V	2500 V
Response Time	t_A	< 25 ns				
Overvoltage Category		III				
Overcurrent Protection (max)		315 A/250 A gG				
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA/50 kA				
TOV Withstand 120min	U_T	255 V	442 V	529 V	762 V	918 V
Number of Ports		1				

UL Electrical

Maximum Continuous Operating Voltage (AC)	MCOV	150 V	300 V	350 V	480 V	550 V
Voltage Protection Rating	VPR	700 V	1200 V	1200 V	1500 V	1800 V
Nominal Discharge Current (8/20 μ s)	I_n	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

Additional Electrical Parameters (Tests performed within Raycap testing laboratory only)

Residual Voltage at 5 kA (8/20 μ s)	U_{res}	750 V	1000 V	1300 V	1600 V	1900 V
Minimum Backup fuse, if required		80 A gG				

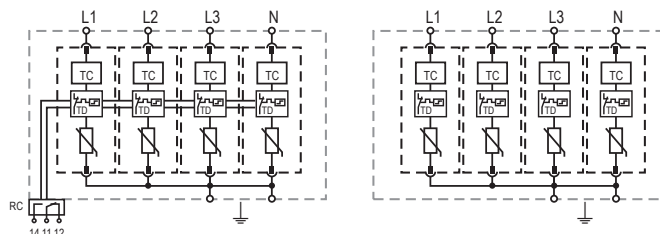
Mechanical & Environmental

Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]				
Permissible Operating Humidity	RH	5%...95%				
Pollution Degree		2				
Altitude (max)		13123 ft [4000m]				
Terminal Screw Torque	M_{max}	40 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)				
Overvoltage Category		III				

Internal Configuration

Legend

<i>L</i>	Line Conductor Terminal
<i>N</i>	Neutral Conductor Terminal
	PE/G Conductor Terminal
<i>RC</i>	Remote Contacts Terminal (Optional)
<i>TC</i>	Thermal Control Function
<i>TD</i>	Thermal Disconnecter

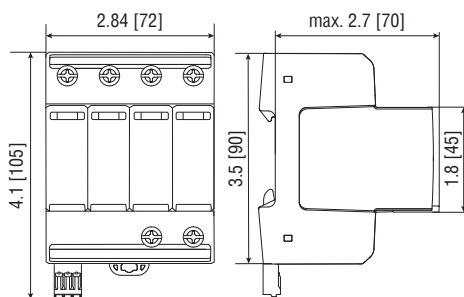


Order Information

Order Code	150	300	350	480	550
SafeTec T2-xxx-4+0	59.0176	59.0178	59.0180	59.0182	59.0184
SafeTec T2-xxx-4+0-R (with remote contacts)	59.0177	59.0179	59.0181	59.0183	59.0185
SafeTec T2-xxx-P (plug)	59.0126	59.0127	59.0128	59.0129	59.0299

Dimensions & Packaging

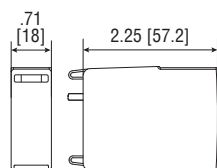
inches [mm]



Complete Unit

SafeTec T2-xxx-4+0		150	300	350	480	550
Weight	pounds	1.070	1.097	1.167	1.1756	1.220
	grams	485	497	529	533	553
SafeTec T2-xxx-4+0-R						
Weight	pounds	1.090	1.117	1.187	1.196	1.240
	grams	494	506	538	542	562
DIN 43880 Dimension			4 TE / 2.84" [72 mm]			
Packaging Dimensions (HxWxL)			4.3 × 4.5 × 13.8" [109 × 115 × 352 mm]			
Standard Order Quantity			4 Units			

Spare Plug



Single Unit

SafeTec T2-xxx-P		150	300	350	480	550
Weight	pounds	.139	.146	.163	.165	.176
	grams	63	66	74	75	80
DIN 43880 Dimension			1 TE / .71" [18 mm]			
Packaging Dimensions (HxWxL)			3.2 x 4.5 x 12" [83 x 116 x 305 mm]			
Standard Order Quantity			24 Units			

Overvoltage Protection

SafeTec T2 1+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
 Safety: Current Limiting Technology
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition



Technical Data

SafeTec T2-xxx-1+1(-R)

		75	150	300	350
IEC Electrical					
Nominal AC Voltage (50/60Hz)	U_o/U_n	60 V	120 V	240 V	277 V
Maximum Continuous Operating Voltage (AC)	(L-N) U_c	75 V	150 V	300 V	350 V
	(N-PE) U_c	305 V	305 V	305 V	305 V
Nominal Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_n	20 kA/40 kA	20 kA/40 kA	20 kA/40 kA	20 kA/40 kA
Maximum Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_{max}	50 kA/65 kA	50 kA/65 kA	50 kA/65 kA	50 kA/65 kA
Voltage Protection Level	(L-N)/(N-PE) U_p	800 V/1500 V	1250 V/1500 V	1650 V/1500 V	1750 V/1500 V
Follow Current Interrupt Rating	(N-PE) I_{fi}	100 A			
Response Time	(L-N)/(N-PE) t_A	< 25 ns / < 100 ns			
Overvoltage Category		III			
Overcurrent Protection (max)		315 A/250 A gG			
Short-Circuit Current Rating (AC)	(L-N) I_{SCCR}	25 kA/50 kA			
TOV Withstand 120min	(L-N) U_T	150 V	255 V	442 V	529 V
TOV Withstand 200ms	(N-PE) U_T	1200 V			
Number of Ports		1			

UL Electrical

Maximum Continuous Operating Voltage (AC)	(L-N)/(N-G) MCOV	75 V/305 V	150 V/305 V	300 V/305 V	350 V/305 V
Voltage Protection Rating	(L-N)/(N-G) VPR	600 V/1000 V	700 V/1000 V	1200 V/1000 V	1200 V/1000 V
Nominal Discharge Current (8/20 μ s)	(L-N)/(N-G) I_n	20 kA/20 kA			
Short-Circuit Current Rating (AC)	(L-N) SCCR	100 kA	200 kA	150 kA	200 kA

Additional Electrical Parameters (Tests performed within Raycap testing laboratory only)

Residual Voltage at 5 kA (8/20 μ s)	(L-N)/(N-PE) U_{res}	400 V/305 V	750 V/305 V	1000 V/305 V	1300 V/305 V
Minimum Backup fuse, if required		80 A gG			

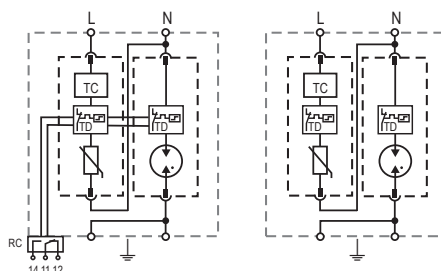
Mechanical & Environmental

Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]			
Permissible Operating Humidity	RH	5%...95%			
Pollution Degree		2			
Altitude (max)		13123 ft [4000m]			
Terminal Screw Torque	M_{max}	40 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: 250 V/1 A, 125 V/1 A; DC: 48 V/0.5 A, 24 V/0.5 A, 12 V/0.5 A			
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5 mm ² (Solid)			
Overvoltage Category		III			

Internal Configuration

Legend

<i>L</i>	Line Conductor Terminal
<i>N</i>	Neutral Conductor Terminal
	PE/G Conductor Terminal
<i>RC</i>	Remote Contacts Terminal (Optional)
<i>TC</i>	Thermal Control Function
<i>TD</i>	Thermal Disconnect

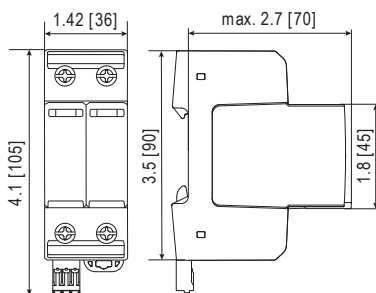


Order Information

Order Code	75	150	300	350
SafeTec T2-xxx-1+1	59.0186	59.0188	59.0190	59.0192
SafeTec T2-xxx-1+1-R (with remote contacts)	59.0187	59.0189	59.0191	59.0193
SafeTec T2-xxx-P (plug L-N)	59.0125	59.0126	59.0127	59.0128
SafeTube T2-40-P (plug N-PE)	59.0274	59.0274	59.0274	59.0274

Dimensions & Packaging

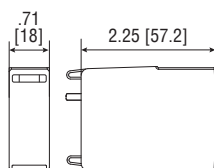
inches [mm]



Complete Unit

SafeTec T2-xxx-1+1		75	150	300	350
Weight	pounds	.552	.563	.569	.587
	grams	250	255	258	266
SafeTec T2-xxx-1+1-R					
Weight	pounds	.561	.572	.578	.596
	grams	254	259	262	270
DIN 43880 Dimension		2 TE / 1.42" [36 mm]			
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]			
Standard Order Quantity		7 Units			

Spare Plug



Single Unit

SafeTec T2-xxx-P		75	150	300	350
Weight	pounds	.128	.139	.146	.163
	grams	58	63	66	74
SafeTube T2-40-P			40		
Weight	pounds		.093		
	grams		42		
DIN 43880 Dimension		1 TE / .71" [18 mm]			
Packaging Dimensions (HxWxL)		3.2 x 4.5 x 12" [83 x 116 x 305 mm]			
Standard Order Quantity		24 Units			

Overvoltage Protection

SafeTec T2 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
 Safety: Current Limiting Technology
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition



Technical Data

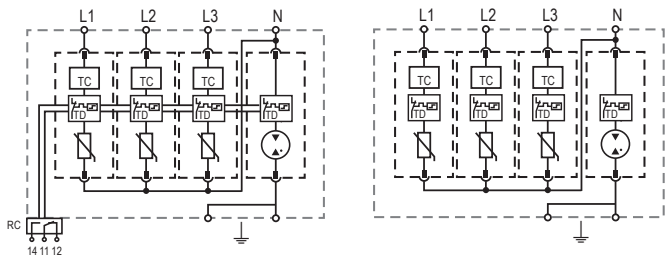
SafeTec T2-xxx-3+1(-R)

SafeTec T2-xxx-3+1(-R)			300	350
IEC Electrical				
Nominal AC Voltage (50/60Hz)		U_o/U_n	240 V	277 V
Maximum Continuous Operating Voltage (AC)	(L - N)	U_c	300 V	350 V
	(N - PE)	U_c	305 V	305 V
Nominal Discharge Current (8/20μs)	(L - N)/(N - PE)	I_n	20 kA/40 kA	20 kA/40 kA
Maximum Discharge Current (8/20μs)	(L - N)/(N - PE)	I_{max}	50 kA/65kA	50 kA/65kA
Voltage Protection Level	(L - N)/(N - PE)	U_p	1650 V/1500 V	1750 V/1500 V
Follow Current Interrupt Rating	(N - PE)	I_{fi}	100 A	
Response Time	(L - N)/(N - PE)	t_A	< 25 ns/ < 100 ns	
Overvoltage Category	III			
Overcurrent Protection (max)	315 A/250 A gG			
Short-Circuit Current Rating (AC)	(L - N)	I_{SCCR}	25 kA/50 kA	
TOV Withstand 120min	(L - N)	U_T	442 V	529 V
TOV Withstand 200ms	(N - PE)	U_T	1200 V	
Number of Ports	1			
UL Electrical				
Maximum Continuous Operating Voltage (AC)	(L - N)/(N - PE)	MCOV	300 V/305 V	350 V/305 V
Voltage Protection Rating	(L - N)/(N - PE)	VPR	1200 V/1000 V	1200 V/1000 V
Nominal Discharge Current (8/20μs)	(L - N)/(N - PE)	I_n	20 kA/20 kA	
Short-Circuit Current Rating (AC)	(L - N)	SCCR	150 kA	150 kA
Additional Electrical Parameters <i>(Tests performed within Raycap testing laboratory only)</i>				
Residual Voltage at 5 kA (8/20 μs)	(L - N)/(N - PE)	U_{res}	1000 V/305 V	1300 V/305 V
Minimum Backup fuse, if required	80 A gG			
Mechanical & Environmental				
Operating Temperature Range		T_a	-40 °F to +185 °F [-40 °C to +85 °C]	
Permissible Operating Humidity		RH	5%...95%	
Pollution Degree	2			
Altitude (max)	13123 ft [4000 m]			
Terminal Screw Torque		M_{max}	40 lbf-in [4.5 Nm]	
Conductor Cross Section (max)	2 AWG (Solid, Stranded) / 4 AWG (Flexible)			
	35 mm² (Solid, Stranded) / 25 mm² (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/1 A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A			
RC Conductor Cross Section (max)	16 AWG (Solid) / 1.5 mm² (Solid)			
Overvoltage Category	III			

Internal Configuration

Legend

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

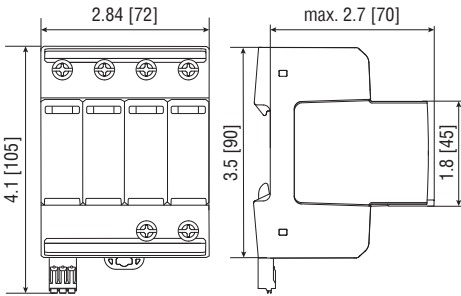


Order Information

Order Code	300	350
SafeTec T2-xxx-3+1	59.0198	59.0200
SafeTec T2-xxx-3+1-R (with remote contacts)	59.0199	59.0201
SafeTec T2-xxx-P (plug L-N)	59.0127	59.0128
SafeTube T2-40-P (plug N-PE)	59.0274	59.0274

Dimensions & Packaging

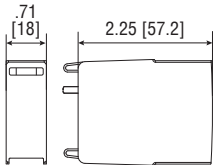
inches [mm]



Complete Unit

SafeTec T2-xxx-3+1		300	350
Weight	pounds [grams]	1.066 [483]	1.119 [507]
SafeTec T2-xxx-3+1-R			
Weight	pounds [grams]	1.077 [488]	1.130 [512]
DIN 43880 Dimension		4 TE / 2.84" [72 mm]	
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]	
Standard Order Quantity		4 Units	

Spare Plug



Single Unit

SafeTec T2-xxx-P		300	350
Weight	pounds [grams]	.146 [66]	.163 [74]
SafeTube T2-40-P		40	
Weight	pounds [grams]	.093 [42]	
DIN 43880 Dimension		1 TE / .71" [18 mm]	
Packaging Dimensions (HxWxL)		3.2 x 4.5 x 12" [83 x 116 x 305 mm]	
Standard Order Quantity		24 Units	

Overvoltage Protection

SafeTube T2 40 0+1

Class II • Type 2 • Type 1CA



Location of Use: Sub-distribution Boards
 Network Systems: TT, TN-S
 Mode of Protection: N-PE
 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

SafeTube T2-xx 0+1(-R)

40

IEC Electrical

Maximum Continuous Operating Voltage	U_c	305V
Nominal Discharge Current (8/20 μ s)	I_n	40 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	65 kA
Voltage Protection Level	U_p	1500V
Follow Current Interrupt Rating	I_{fi}	100 A
Response Time	t_A	< 100 ns
Overvoltage Category		III
TOV Withstand 200ms	U_T	1200 V
Number of Ports		1

UL Electrical

Maximum Continuous Operating Voltage (AC)	MCOV	305V
Voltage Protection Rating(N)	VPR	1000V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA

Additional Electrical Parameters *(Tests performed within Raycap testing laboratory only)*

Residual Voltage at 5 kA (8/20 μ s)	U_{res}	305V
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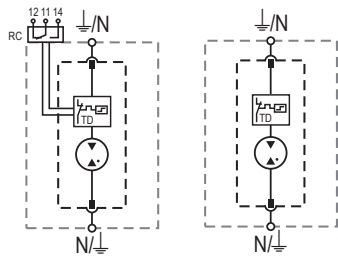
Mechanical & Environmental

Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Operating Humidity	RH	5%...95%
Pollution Degree		2
Altitude (max)		13123 ft [4000m]
Terminal Screw Torque	M_{max}	40 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)
Overvoltage Category		III

Internal Configuration

Legend

- N Neutral Conductor Terminal
- PE/G Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TC Thermal Control Function
- TD Thermal Disconnect

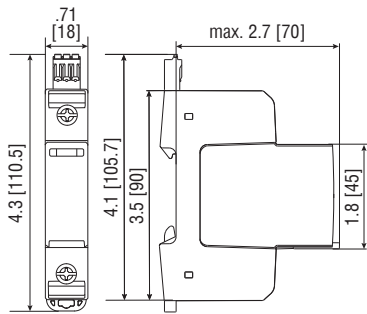


Order Information

Order Code	40
SafeTube T2-xxx-0+1	59.0281
SafeTube T2-xxx-0+1-R (with remote contacts)	59.0337
SafeTube T2-40-P (plug)	59.0274

Dimensions & Packaging

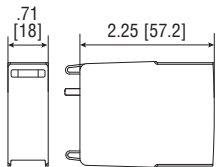
inches [mm]



Complete Unit

SafeTube T2-xxx-0+1		40
Weight	pounds [grams]	.244 [111]
SafeTube T2-xxx-0+1-R		
Weight	pounds [grams]	.259 [118]
DIN 43880 Dimension	1 TE / .71" [18 mm]	
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

SafeTube T2-40-P		40
Weight	pounds [grams]	.093 [42]
DIN 43880 Dimension	1 TE / .71" [18 mm]	
Packaging Dimensions (HxWxL)	3.2 x 4.5 x 12" [83 x 116 x 305 mm]	
Standard Order Quantity	24 Units	