

Overvoltage Protection SafeTec T2 1+0

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



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,
 Open Type 1 SPD Listed
 Safety: Patented 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) & SafeTec T2-xxx-1+0-US(-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	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA
Maximum Discharge Current (8/20μs)	I _{max}	50kA	50kA	50kA	50kA	50kA	50kA	35kA	35kA	
Voltage Protection Level	U _p	800V	1250V	1650V	1750V	2300V	2500V	3500V	3600V	
Response Time	t _A	< 25 ns								
Overcurrent Protection (max)		315 A/250 A gG								
Short-Circuit Current Rating (AC)	I _{SCCR}	25kA/50kA								
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	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA
Short-Circuit Current Rating (AC)	SCCR	85kA	200kA	150kA	200kA	200kA	200kA	200kA	200kA	200kA
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	
Overcurrent Protection (min)		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%								
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/1 A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A								
RC Conductor Cross Section (max)		10 AWG (Solid, Stranded) per UL 1449 [1.5mm ² (Solid)]								

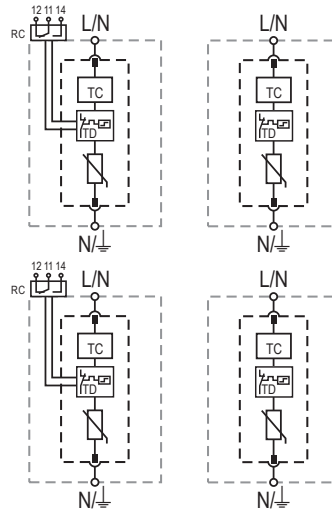
Internal Configuration

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

UL Listed Products

UL Recognized Products



SafeTec T2-xxx-1+0(-R)

Order Information VDE Certified and UL Recognized Products

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

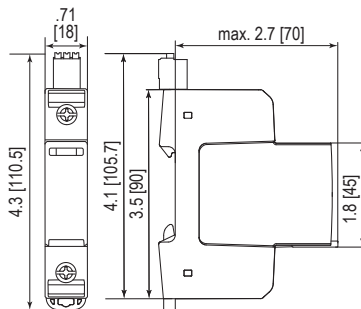
SafeTec T2-xxx-1+0-US(-R)

Order Information VDE Certified and Open Type 1 UL Listed Products

Order Code	75	150	300	350	480	550	750	880
SafeTec T2-xxx-1+0-US	59.B183	59.B185	59.B187	59.B189	59.B191	59.B193	59.B195	59.B197
SafeTec T2-xxx-1+0-US-R (with remote contacts)	59.B184	59.B186	59.B188	59.B190	59.B192	59.B194	59.B196	59.B198
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 UL Recognized Products

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	159

SafeTecT2-xxx-1+0-R

Weight	pounds	.295	.306	.312	.330	.332	.343	.361
	grams	134	139	142	150	151	156	166

Complete Unit UL Listed Products

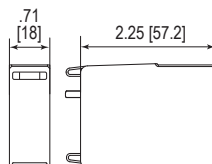
SafeTec T2-xxx-1+0-US	75	150	300	350	480	550	750	880
Weight								
	pounds	.279	.290	.297	.314	.317	.328	.345
	grams	127	132	135	143	144	149	159

SafeTecT2-xxx-1+0-US-R

Weight	pounds	.295	.306	.312	.330	.332	.343	.361
	grams	134	139	142	150	151	156	166

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

SafeTec T2-xxx-P	75	150	300	350	480	550	750	880
Weight								
	pounds	.128	.139	.146	.163	.165	.176	.198
	grams	58	63	66	74	75	80	90

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							

Overvoltage Protection SafeTec T2 2+0

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



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,
 Open Type 1 SPD Listed
 Safety: Patented 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) & SafeTec T2-xxx-2+0-US(-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	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA
Maximum Discharge Current (8/20μs)	I _{max}	50kA	50kA	50kA	50kA	50kA	50kA	35kA	35kA	
Voltage Protection Level	U _p	800V	1250V	1650V	1750V	2300V	2500V	3500V	3600V	
Response Time	t _A	< 25 ns								
Overcurrent Protection (max)		315 A/250 A gG								
Short-Circuit Current Rating (AC)	I _{SCCR}	25kA/50kA								
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	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA
Short-Circuit Current Rating (AC)	SCCR	85kA	200kA	150kA	200kA	200kA	200kA	200kA	200kA	200kA
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	
Overcurrent Protection (min)		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%								
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/1 A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A								
RC Conductor Cross Section (max)		10 AWG (Solid, Stranded) per UL 1449 [1.5mm ² (Solid)]								

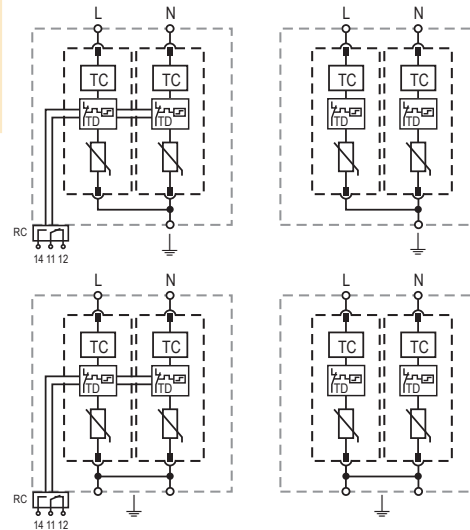
Internal Configuration

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

UL Listed Products

UL Recognized Products



SafeTec T2-xxx-2+0(-R)

Order Information VDE Certified and UL Recognized Products

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

SafeTec T2-xxx-2+0-US(-R)

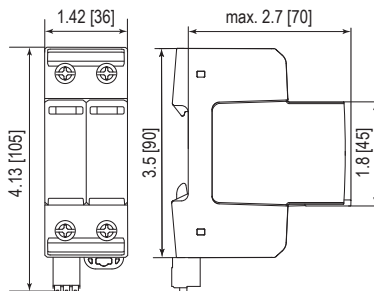
For UL Listed products one PE/G Conductor Terminal is covered/closed.

Order Information VDE Certified and Open Type 1 UL Listed Products

Order Code	75	150	300	350	480	550	750	880
SafeTec T2-xxx-2+0-US	59.B199	59.B201	59.B203	59.B205	59.B207	59.B209	59.B211	59.B213
SafeTec T2-xxx-2+0-US-R (with remote contacts)	59.B200	59.B202	59.B204	59.B206	59.B208	59.B210	59.B212	59.B214
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 UL Recognized Products

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

Complete Unit UL Listed Products

SafeTec T2-xxx-2+0-US	75	150	300	350	480	550	750	880
Weight	pounds	.545	.567	.580	.616	.620	.642	.677
	grams	247	257	263	279	281	291	307

SafeTecT2-xxx-2+0-US-R

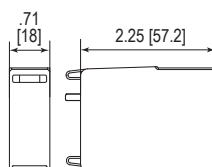
Weight	pounds	.565	.587	.600	.635	.640	.662	.697
	grams	256	266	272	288	290	300	316

DIN 43880 Dimension 2 TE / 1.42" [36]

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]

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 • 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
 Safety: Patented 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) & SafeTec T2-xxx-3+0-US(-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							
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	
Overcurrent Protection (min)		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%							
Altitude (max)		13123 ft [4000 m]							
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/1 A; 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)]							

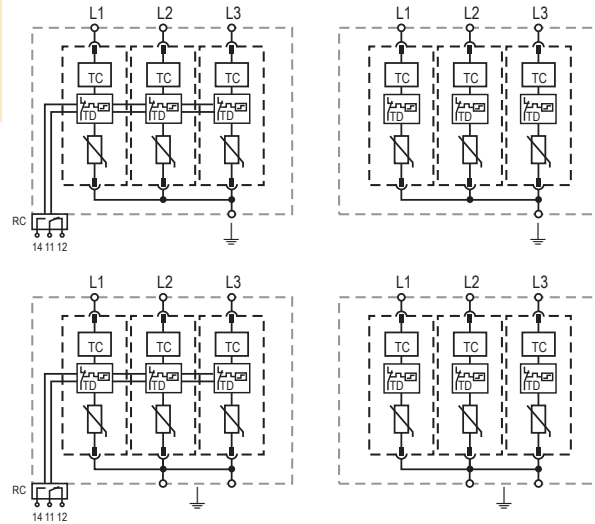
Internal Configuration

Legend

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

UL Listed Products

UL Recognized Products



SafeTec T2-xxx-3+0(-R)

Order Information VDE Certified and UL Recognized Products

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

SafeTec T2-xxx-3+0-US(-R)

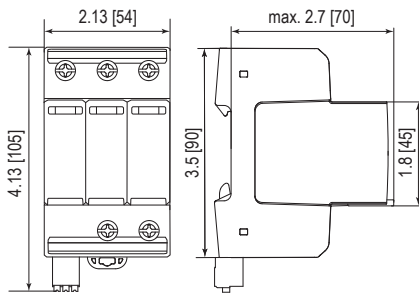
For UL Listed products one PE/G Conductor Terminal is covered/closed.

Order Information VDE Certified and Open Type 1 UL Listed Products

Order Code	150	300	350	480	550	750	880
SafeTec T2-xxx-3+0-US	59.B215	59.B217	59.B219	59.B221	59.B223	59.B225	59.B227
SafeTec T2-xxx-3+0-US-R (with remote contacts)	59.B216	59.B218	59.B220	59.B222	59.B224	59.B226	59.B228
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 UL Recognized Products

SafeTec T2-xxx-3+0	150	300	350	480	550	750	880
Weight							
pounds	.846	.866	.919	.926	.959	1.012	1.025
grams	384	393	417	420	435	459	465

SafeTecT2-xxx-3+0-R

Weight							
pounds	.866	.886	.939	.946	.979	1.031	1.045
grams	393	402	426	429	444	468	474

Complete Unit UL Listed Products

SafeTec T2-xxx-3+0-US	150	300	350	480	550	750	880
Weight							
pounds	.826	.846	.899	.906	.939	.992	1.005
grams	375	384	408	411	426	450	456

SafeTecT2-xxx-3+0-US-R

Weight							
pounds	.846	.866	.919	.926	.959	1.011	1.025
grams	384	393	417	420	435	459	465

DIN 43880 Dimension

3 TE / 2.13" [54]

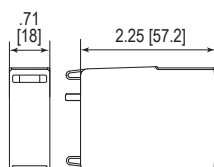
Packaging Dimensions (HxWxL)

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

Standard Order Quantity

5 Units

Spare Plug



Single Unit

SafeTec T2-xxx-P	150	300	350	480	550	750	880
Weight							
pounds	.139	.146	.163	.165	.176	.194	.198
grams	63	66	74	75	80	88	90

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

Overvoltage Protection

SafeTec T2 4+0

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



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,
 Open Type 1 SPD Listed
 Safety: Patented 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) & SafeTec T2-xxx-4+0-US(-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 (8/20μs)	I _n	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	
Voltage Protection Level	U _p	1250 V	1650 V	1750 V	2300 V	2500 V	
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 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 (8/20μs)	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 <i>(Tests performed within Raycap testing laboratory only)</i>							
Residual Voltage at 5 kA (8/20 μs)	U _{res}	750 V	1000 V	1300 V	1600 V	1900 V	
Overcurrent Protection (min)		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%					
Altitude (max)		13123 ft [4000 m]					
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/1 A; 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)]					

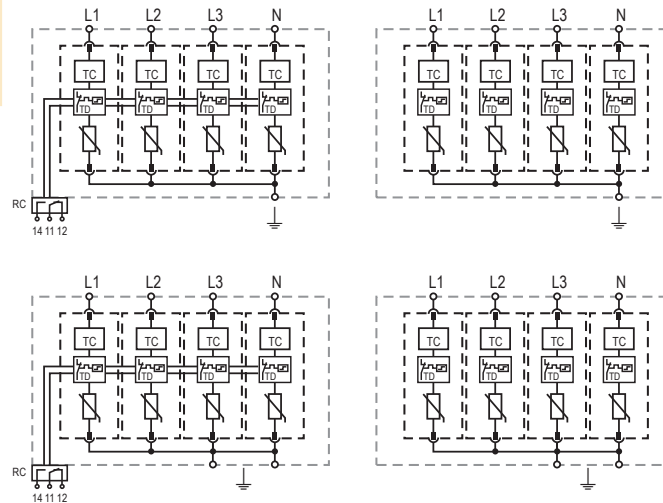
Internal Configuration

Legend

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

UL Listed Products

UL Recognized Products



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

Order Information VDE Certified and UL Recognized Products

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

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

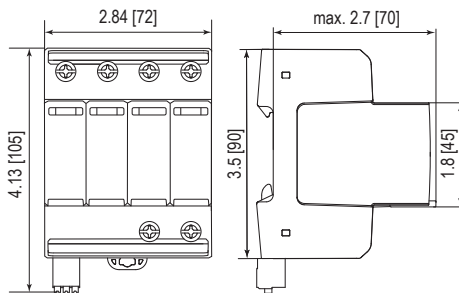
For UL Listed products one PE/G Conductor Terminal is covered/closed.

Order Information VDE Certified and Open Type 1 UL Listed Products

Order Code	150	300	350	480	550
SafeTec T2-xxx-4+0-US	59.B229	59.B231	59.B233	59.B235	59.B237
SafeTec T2-xxx-4+0-US-R (with remote contacts)	59.B230	59.B232	59.B234	59.B236	59.B238
SafeTec T2-xxx-P (plug)	59.0126	59.0127	59.0128	59.0129	59.0299

Dimensions & Packaging

inches [mm]



Complete Unit UL Recognized Products

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

Complete Unit UL Listed Products

SafeTec T2-xxx-4+0-US		150	300	350	480	550
Weight	pounds	1.050	1.077	1.147	1.156	1.200
	grams	476	488	520	524	544

SafeTec T2-xxx-4+0-US-R

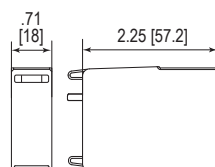
Weight	pounds	1.070	1.097	1.167	1.176	1.220
	grams	485	497	529	533	553

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

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]

Packaging Dimensions (HxWxL) 3.2 x 4.5 x 12" [83 x 116 x 305 mm]

Standard Order Quantity 24 Units

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G29-00-408-OTL 221115

Overvoltage Protection

SafeTec T2 1+1

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



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,
 Open Type 1 SPD Listed
 Safety: Patented 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) & SafeTec T2-xxx-1+1-US(-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			
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	85 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
Overcurrent Protection (min)		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%			
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: 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)		10 AWG (Solid, Stranded) per UL 1449 [1.5 mm ² (Solid)]			

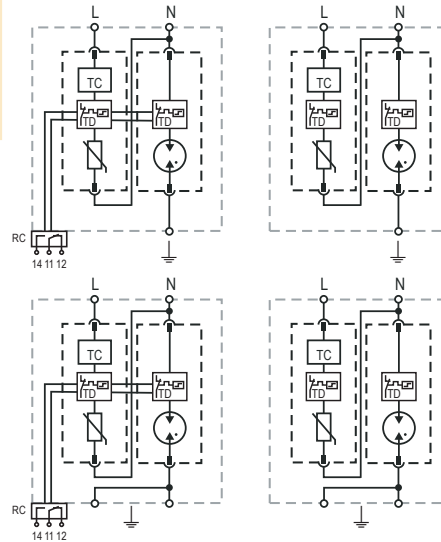
Internal Configuration

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

UL Listed Products

UL Recognized Products



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

Order Information VDE Certified and UL Recognized Products

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

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

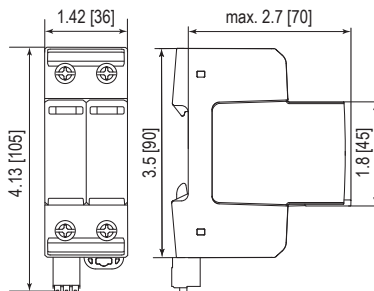
For UL Listed products one PE/G Conductor Terminal is covered/closed.

Order Information VDE Certified and Open Type 1 UL Listed Products

Order Code	75	150	300	350
SafeTec T2-xxx-1+1-US	59.B239	59.B241	59.B243	59.B245
SafeTec T2-xxx-1+1-US-R (with remote contacts)	59.B240	59.B242	59.B244	59.B246
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]



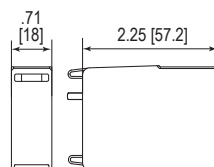
Complete Unit UL Recognized Products

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	75	150	300	350
Weight				
pounds	.561	.572	.578	.596
grams	254	259	262	270

Complete Unit UL Listed Productss

SafeTec T2-xxx-1+1-US	75	150	300	350
Weight				
pounds	.532	.543	.549	.567
grams	241	246	249	257
SafeTec T2-xxx-1+1-US-R	75	150	300	350
Weight				
pounds	.541	.552	.558	.576
grams	245	250	253	261
DIN 43880 Dimension	2 TE / 1.42" [36]			
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]			
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 • Open Type 1 SPD Listed



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,
 Open Type 1 SPD Listed
 Safety: Patented 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-US(-R)

SafeTec T2-xxx-3+1(-R) & SafeTec T2-xxx-3+1-US(-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 (8/20 μs)	(L - N)/(N - PE)	I _n	20 kA/40 kA	20 kA/40 kA
Maximum Discharge Current (8/20 μs)	(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	
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 (8/20 μs)	(L - N)/(N - PE)	I _n	20 kA/20 kA	
Short-Circuit Current Rating (AC)	(L - N)	SCCR	150 kA	200 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
Overcurrent Protection (min)			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%	
Altitude (max)			13123 ft [4000 m]	
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 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)			10 AWG (Solid, Stranded) per UL 1449 [1.5mm² (Solid)]	

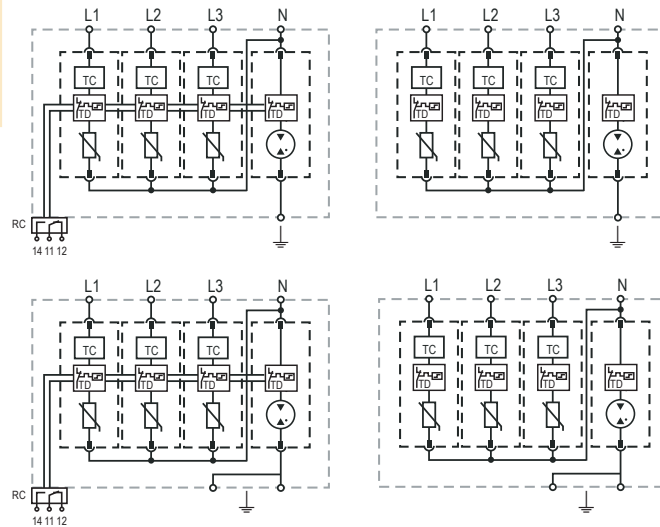
Internal Configuration

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

UL Listed Products

UL Recognized Products



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

Order Information VDE Certified and UL Recognized Products

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

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

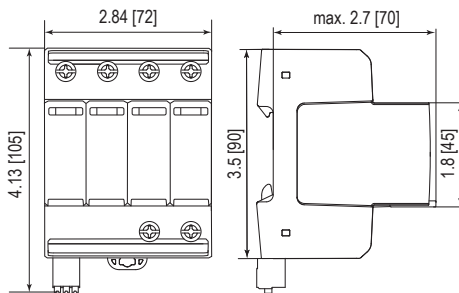
For UL Listed products one PE/G Conductor Terminal is covered/closed.

Order Information VDE Certified and Open Type 1 UL Listed Products

Order Code	300	350
SafeTec T2-xxx-3+1-US	59.B247	59.B249
SafeTec T2-xxx-3+1-US-R (with remote contacts)	59.B248	59.B250
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]



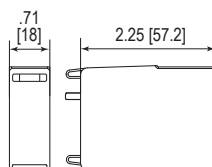
Complete Unit UL Recognized Products

SafeTec T2-xxx-3+1	300	350
Weight	pounds 1.066	1.119
	grams 483	507
SafeTec T2-xxx-3+1-R		
Weight	pounds 1.077	1.130
	grams 488	512

Complete Unit UL Listed Products

SafeTec T2-xxx-3+1-US	300	350
Weight	pounds 1.046	1.099
	grams 474	498
SafeTec T2-xxx-3+1-US-R		
Weight	pounds 1.057	1.110
	grams 479	503
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	

Spare Plug



Single Unit

SafeTec T2-xxx-P	300	350
Weight	pounds .146	.163
	grams 66	74
SafeTube T2-40-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 116 x 305 mm]	
Standard Order Quantity	24 Units	

Overvoltage Protection

SafeTube T2 40 0+1

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



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,
 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

SafeTube T2-xx 0+1(-R) & SafeTube T2-xx 0+1-US(-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
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%
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/1 A; DC: 48V/0.5 A, 24V/0.5 A, 12V/0.5 A
RC Conductor Cross Section (max)		10 AWG (Solid, Stranded) per UL 1449 [1.5 mm ² (Solid)]

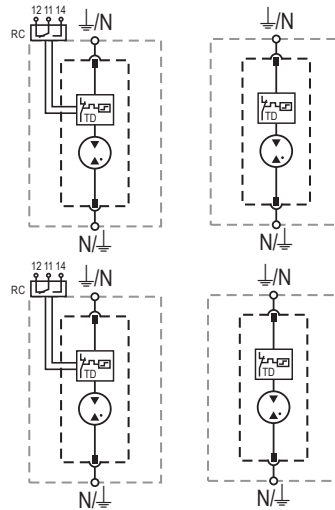
Internal Configuration

Legend

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

UL Listed Products

UL Recognized Products



SafeTube T2-xx 0+1(-R)

Order Information VDE Certified and UL Recognized Products

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

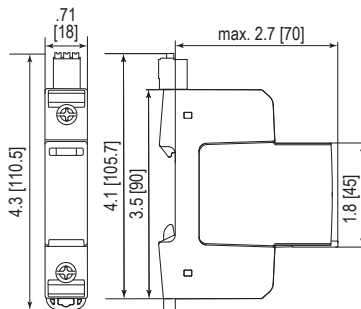
SafeTube T2-xx 0+1-US(-R)

Order Information VDE Certified and Open Type 1 UL Listed Products

Order Code	40
SafeTube T2-xxx-0+1-US	59.B251
SafeTube T2-xxx-0+1-US-R (with remote contacts)	59.B252
SafeTube T2-40-P (plug)	59.0274

Dimensions & Packaging

inches [mm]



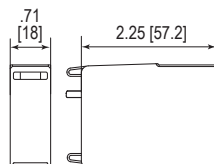
Complete Unit UL Recognized Products

SafeTube T2-xxx-0+1	40
Weight	pounds .244
	grams 111
SafeTube T2-xxx-0+1-R	
Weight	pounds .259
	grams 118

Complete Unit UL Listed Products

SafeTube T2-xxx-0+1-US	40
Weight	pounds .244
	grams 111
SafeTube T2-xxx-0+1-US-R	
Weight	pounds .259
	grams 118
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

SafeTube T2-40-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 116 x 305 mm]
Standard Order Quantity	24 Units