

Type 2 Modular Single and Multi-pole SPD up to 50kA per pole



Classification UL 1449 3rd ed.:

Location of use:

Protection modes:

Protective elements:

Surge discharge ratings:

Housing:

Complies with:

Type 2

Sub-distribution boards

L - G (PE), L - N, N - G (PE) or L - L

MOV and GDT

I_{max} up to 50kA

Modular design

UL 1449 3rd Ed.

The new SAFETEC series of SPDs :

- **Are highly reliable - controlled disconnection, arc-quenching**
- **Are safer - controlled behaviour even when surge ratings are exceeded**
- **Have longer life - protection against ageing**
- **Have up to 20 years warranty**

SAFETEC C(R) UL Series:

SAFETEC C(R) UL

SAFETEC C(R) (2+0) UL

SAFETEC C(R) (3+0) UL

SAFETEC C(R) (4+0) UL

The modular SAFETEC C(R) series is suitable for all type of connections.

Patented TC* technology prevents catastrophic failures in case of TOV (temporary overvoltages).

All in one technology is a protection from overvoltages surges and transients. It has been developed to protect against partial direct and indirect lightning discharges and are intended to provide protection in zones O_B - 2 per IEC 62305.

*TC - Thermal control function





SAFETEC C(R) UL



- Classification UL 1449 3rd Ed.: Type 2
- Location of use: Sub-distribution boards
- Protection modes: L - G (PE), L - N, N - G (PE) or L - L
- Protective element: MOV and GDT
- Surge discharge rating: I_{max} up to 50kA
- Safety: TOV withstand for unlimited time
- Housing: Modular design
- Complies with: UL 1449 3rd Ed.



Technical data

Type		150	277	385	SAFETEC C(R)			550	750	880
Electrical characteristics										
Max. continuous operating voltage (AC)	MCOV	150V	300V	385V	440V	550V	750V	880V		
Nominal discharge current (8/20) per mode of protection	I_n	20kA	20kA	20kA	20kA	20kA	10kA	10kA		
Max. discharge current (8/20) per mode of protection	I_{max}	50kA	50kA	50kA	50kA	50kA	20kA	20kA		
Voltage protection rating per UL 1449 3rd ed.	VPR	1.2kV	1.6kV	1.8kV	2.0kV	2.5kV	2.5kV	3.0kV		
Short-circuit withstand rating	SCCR				200kA					
Follow current	I_{fi}				NO					
Response time	t_A				< 25ns					
Thermal protection					YES					
Mechanical characteristics										
Terminal screw torque					max. 3.0Nm					
Temperature range					- 40°C + 80°C					
Terminal cross section					35mm ² (solid) / 25mm ² (stranded)					
Mounting					35mm DIN rail, EN 60715					
Degree of protection					IP 20					
Housing material					thermoplastic; extinguishing degree UL 94 V-0					
Indication of disconnecter operation					red flag					
Remote contacts (RC)					YES					
Contact ratings					AC: 250V/0.5A; 125V/3A					
Terminal cross section					max. 1.5mm ²					
Remote terminal torque					0.25Nm					

Ordering information

MCOV	150	277	385	440	550	750	880
Ordering code SAFETEC C 50/xxx	516.058	516.060	516.062	516.064	516.066		
Ordering code SAFETEC CR 50/xxx (with remote contacts)	516.059	516.061	516.063	516.065	516.067		
Ordering code SAFETEC C 20/xxx						516.068	516.586
Ordering code SAFETEC CR 20/xxx (with remote contacts)						516.069	516.587
Ordering code Module SAFETEC C(R) 50/xxx	516.201	516.202	516.203	516.204	516.205		
Ordering code Module SAFETEC C(R) 20/xxx						516.206	516.585



SAFETEC C(R) UL Series



- Classification UL 1449 3rd Ed.: Type 2
- Location of use: Sub-distribution boards
- Protection modes: L - G (PE), L - N, N - G (PE) or L - L
- Protective element: MOV and GDT
- Surge discharge rating: I_{max} up to 50kA
- Safety: TOV withstand for unlimited time
- Housing: Modular design
- Complies with: UL 1449 3rd Ed.



Technical data

Type		150	277	SAFETEC C(R) (2+0), (3+0), (4+0)				750	880
Electrical characteristics									
Max. continuous operating voltage (AC)	MCOV	150V	300V	385V	440V	550V	750V	880V	
Nominal discharge current (8/20) per mode of protection	I_n	20kA	20kA	20kA	20kA	20kA	10kA	10kA	
Max. discharge current (8/20) per mode of protection	I_{max}	50kA	50kA	50kA	50kA	50kA	20kA	20kA	
Voltage protection rating per UL 1449 3rd ed.	VPR	1.2kV	1.6kV	1.8kV	2.0kV	2.5kV	2.5kV	3.0kV	
Short-circuit withstand rating	SCCR				200kA				
Follow current	I_{fi}				NO				
Response time	t_A				< 25ns				
Thermal protection					YES				
Mechanical characteristics									
Terminal screw torque					max. 3.0Nm				
Temperature range					- 40°C + 80°C				
Terminal cross section					35mm ² (solid) / 25mm ² (stranded)				
Mounting					35mm DIN rail, EN 60715				
Degree of protection					IP 20				
Housing material					thermoplastic; extinguishing degree UL 94 V-0				
Indication of disconnecter operation					red flag				
Remote contacts (RC)					YES				
Contact ratings					AC: 250V/0.5A; 125V/3A				
Terminal cross section					max. 1.5mm ²				
Remote terminal torque					0.25Nm				

Ordering information

MCOV	150	277	385	440	550	750	880
Ordering code SAFETEC C 100/xxx (2+0)	516.070	516.072	516.074	516.076	/		
Ordering code SAFETEC CR 100/xxx (2+0) (with remote contacts)	516.071	516.073	516.075	516.077	/		
Ordering code SAFETEC C 40/xxx (2+0)						516.080	516.588
Ordering code SAFETEC CR 40/xxx (2+0) (with remote contacts)						516.081	516.589
Ordering code SAFETEC C 150/xxx (3+0)	516.082	516.084	516.086	516.088	516.090		
Ordering code SAFETEC CR 150/xxx (3+0) (with remote contacts)	516.083	516.085	516.087	516.089	516.130		
Ordering code SAFETEC C 60/xxx (3+0)						516.091	516.590
Ordering code SAFETEC CR 60/xxx (3+0) (with remote contacts)						516.092	516.591
Ordering code SAFETEC C 200/xxx (4+0)	516.093	516.095	516.097	516.099	/		
Ordering code SAFETEC CR 200/xxx (4+0) (with remote contacts)	516.094	516.096	516.098	516.100	/		
Ordering code SAFETEC C 80/xxx (4+0)						516.103	516.592
Ordering code SAFETEC CR 80/xxx (4+0) (with remote contacts)						516.104	516.593
Ordering code Module SAFETEC C(R) 50/xxx	516.201	516.202	516.203	516.204	516.205		
Ordering code Module SAFETEC C(R) 20/xxx						516.206	516.585



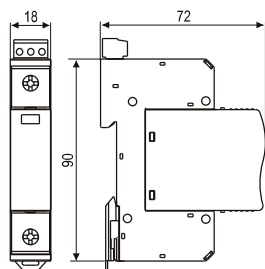
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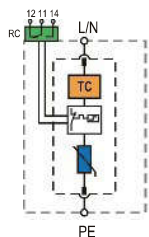
Dimensions, Internal configuration, Weight and Packaging

SAFETEC C(R) UL

Dimensions



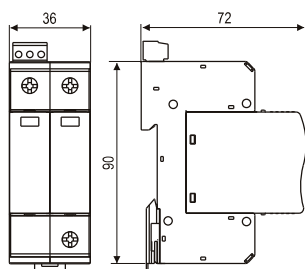
Internal configuration



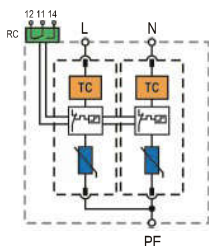
SAFETEC C 50/xxx	150	277	385	440	550
Dimensions DIN 43880	1TE				
Weight per unit	140g	140g	145g	150g	153g
SAFETEC CR 50/xxx	150	277	385	440	550
Weight per unit	148g	148g	153g	158g	161g
SAFETEC C 20/xxx	750 880				
Weight per unit	156g 156g				
SAFETEC CR 20/xxx	750 880				
Weight per unit	164g 164g				
Packaging dimensions (single unit)	108 x 74 x 24mm				
Min. packaging quantity	12 pcs.				

SAFETEC C(R) (2+0) UL

Dimensions



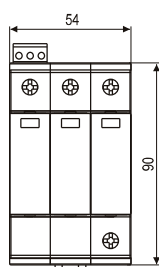
Internal configuration



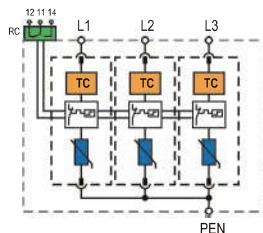
SAFETEC C 100/xxx (2+0)	150	277	385	440	
Dimensions DIN 43880	2TE				
Weight per unit	280g	281g	290g	299g	
SAFETEC CR 100/xxx (2+0)	150	277	385	440	
Weight per unit	288g	289g	298g	307g	
SAFETEC CR 40/xxx (2+0)	750 880				
Weight per unit	312g 312g				
SAFETEC CR 40/xxx (2+0)	750 880				
Weight per unit	320g 320g				
Packaging dimensions (single unit)	109 x 76,5 x 41,5mm				
Min. packaging quantity	7 pcs.				

SAFETEC C(R) (3+0) UL

Dimensions



Internal configuration



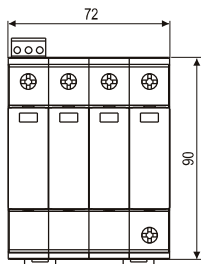
SAFETEC C 150/xxx (3+0)	150	277	385	440	550
Dimensions DIN 43880	3TE				
Weight per unit	420g	422g	435g	450g	459g
SAFETEC CR 150/xxx (3+0)	150	277	385	440	550
Weight per unit	428g	430g	443g	458g	467g
SAFETEC C 60/xxx (3+0)	750 880				
Weight per unit	468g 468g				
SAFETEC CR 60/xxx (3+0)	750 880				
Weight per unit	476g 476g				
Packaging dimensions (single unit)	109 x 76,5 x 60mm				
Min. packaging quantity	5 pcs.				



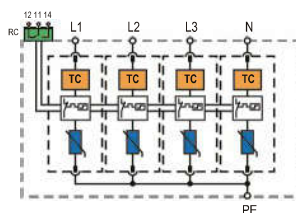
Dimensions, Internal configuration, Weight and Packaging

SAFETEC C(R) (4+0) UL

Dimensions



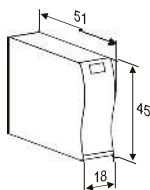
Internal configuration



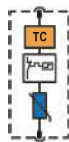
SAFETEC C 200/xxx (4+0)	150	277	385	440
Dimensions DIN 43880	4TE			
Weight per unit	560g	562g	580g	598g
SAFETEC CR 200/xxx (4+0)	150	277	385	440
Weight per unit	568g	570g	588g	606g
SAFETEC CR 80/xxx (4+0)				750 880
Weight per unit				624g 624g
SAFETEC CR 80/xxx (4+0)				750 880
Weight per unit				632g 632g
Packaging dimensions (single unit)	109 x 76.5 x 78mm			
Min. packaging quantity	3 pcs.			

Module SAFETEC C(R) UL

Dimensions



Internal configuration



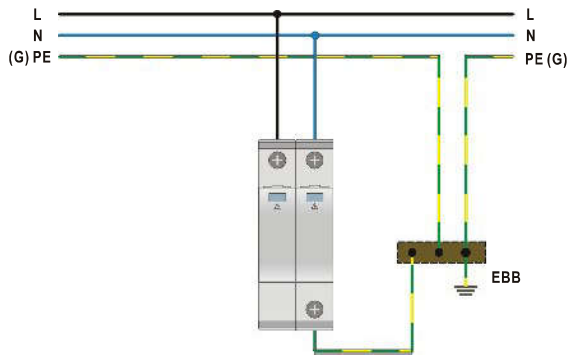
Module SAFETEC C(R) 50/xxx	150	277	385	440	550
Weight per unit	62g	66g	72g	74g	76g
Module SAFETEC C(R) 20/xxx					750 880
Weight per unit					78g 78g
Packaging dimensions	219 x 62 x 47mm				
Min. packaging quantity	12 pcs.				



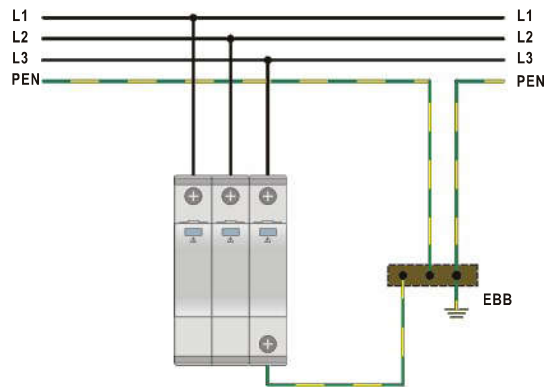
SAFETEC C(R) UL Series

Network connections

- TN-S Network (Single-phase);
- Single-phase



- TN-C Network (3-phase),
- Split phase System,
- 3-phase WYE without neutral,
- Delta Ungrounded



- TN-S Network (3-phase),
- 3-phase WYE with neutral,
- Delta Grounded Corner

