

## SAFETEC C(R) PV



- Category IEC / EN / VDE: Class II / Type 2 / C
- Location of use: Photovoltaic systems - PV module side
- Protection modes: (+) → PE, (-) → PE, (+) → (-)
- Protective elements: MOV and GDT
- Surge discharge rating:  $I_{max}$  up to 40kA
- Safety: Ground fault withstand
- Housing: Modular design
- Complies with: EN 50539-11



## Technical data

Type		75	SAFETEC C(R) xxxx PV 300	600	1000
<b>Electrical characteristics</b>					
Max. continuous operating voltage (DC)	$U_{CPV}^{* (+) \rightarrow PE / (-) \rightarrow PE}$	75V	300V	600V	1000V
Nominal discharge current (8/20)	$I_n (+) \rightarrow PE / (-) \rightarrow PE$	10kA	20kA	20kA	12.5kA
Max. discharge current (8/20)	$I_{max} (+) \rightarrow PE / (-) \rightarrow PE$	20kA	40kA	40kA	25kA
Short-circuit withstand	$I_{SCPV}$			1000A	
Protection level	$U_p (+) \rightarrow PE / (-) \rightarrow PE$	< 0.8kV	< 1.5kV	< 2.3kV	< 2.8kV
Residual voltage at 5kA (8/20)	$U_{res}$	< 0.6kV	< 1.1kV	< 1.6kV	< 2.2kV
Follow current	$I_{fi}$			NO	
Response time	$t_A$			< 25ns	
Thermal protection				YES	
Ground fault withstand (DC)		120V	450V	900V	1500V
<b>Mechanical characteristics</b>					
Temperature range			- 40°C ... + 80°C		
Terminal screw torque			max. 3.0Nm		
Terminal cross section			35mm <sup>2</sup> (solid) / 25mm <sup>2</sup> (stranded)		
Mounting			35mm DIN rail, EN 60715		
Degree of protection			IP 20		
Housing material			Thermoplastic; extinguishing degree UL 94 V-0		
Indication of disconnector operation			red flag		
Remote contacts (RC)			YES		
Contact ratings			AC: 250V/0.5A; 125V/3A		
Terminal cross section			max. 1.5mm <sup>2</sup>		
Remote terminal torque			0.25Nm		

\*  $U_{CPV} \geq 1.2 \cdot U_{OCSTC}$  → open circuit voltage under standard test condition

## Ordering information

$U_{CPV}$	75	300	600	1000
Ordering code SAFETEC C xxxx PV	516.040	516.042	516.044	516.046
Ordering code SAFETEC CR xxxx PV (with remote contacts)	516.041	516.043	516.045	516.047
Ordering code Module SAFETEC C(R) xxxx PV	516.050	516.051	516.052	516.053

SAFETEC C(R) Y PV



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- **Protection modes:** (+) → PE, (-) → PE, (+) → (-)
- **Protective elements:** MOV and GDT
- **Surge discharge rating:**  $I_{max}$  up to 40kA
- **Safety:** Ground fault withstand
- **Housing:** Modular design
- **Complies with:** EN 50539-11



Technical data

Type		SAFETEC C(R) xxxxY PV		
		1000	1200	1500
<b>Electrical characteristics</b>				
Max. continuous operating voltage (DC)	$U_{CPV}^*$ (+)→PE/(-)→PE	1000V	1200V	1500V
	$U_{CPV}$ per module	500V	600V	750V
Nominal discharge current (8/20)	$I_n$ (+)→PE/(-)→PE/(+)→(-)	20kA	20kA	12.5kA
Max. discharge current (8/20)	$I_{max}$ (+)→PE/(-)→PE/(+)→(-)	40kA	40kA	25kA
Short-circuit withstand	$I_{SCP}$		1000A	
Protection level	$U_p$ (+)→PE/(-)→PE/(+)→(-)	< 4.2kV	< 4.6kV	< 5.0kV
Residual voltage at 5kA (8/20)	$U_{res}$	< 3.2kV	< 3.6kV	< 4.0kV
Follow current	$I_{fi}$		NO	
Response time	$t_A$		< 25ns	
Thermal protection			YES	
Ground fault withstand (DC)		1500V	1800V	2400V
<b>Mechanical characteristics</b>				
Temperature range		- 40°C ... + 80°C		
Terminal screw torque		max. 3.0Nm		
Terminal cross section		35mm <sup>2</sup> (solid) / 25mm <sup>2</sup> (stranded)		
Mounting		35mm DIN rail, EN 60715		
Degree of protection		IP 20		
Housing material		Thermoplastic; extinguishing degree UL 94 V-0		
Indication of disconnector operation		red flag		
Remote contacts (RC)		YES		
Contact ratings		AC: 250V/0.5A; 125V/3A		
Terminal cross section		max. 1.5mm <sup>2</sup>		
Remote terminal torque		0.25Nm		

\*  $U_{CPV} \geq 1.2 \cdot U_{OCSTC}$  → open circuit voltage under standard test condition

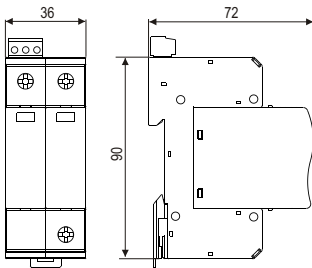
Ordering information

$U_{CPV}$	1000	1200	1500
Ordering code SAFETEC C xxxx Y PV	516.242	516.048	516.271
Ordering code SAFETEC CR xxxx Y PV (with remote contacts)	516.243	516.049	516.272
Ordering code Module SAFETEC C(R) xxxx Y PV	516.244	516.054	516.273

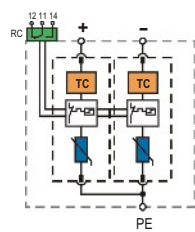
Dimensions, Internal configuration, Weight and Packaging

**SAFETEC C(R) xxxx PV**

**Dimensions**



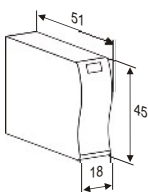
**Internal configuration**



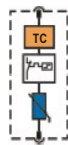
SAFETEC C xxxx PV	75	300	600	1000
Dimensions DIN 43880	2TE			
Weight per unit	246g	280g	290g	299g
SAFETEC CR xxxx PV	75	300	600	1000
Dimensions DIN 43880	2TE			
Weight per unit	251g	288g	298g	307g
Packaging dimensions (single unit)	109 x 76.5 x 41.5mm			
Min. packaging quantity	7 pcs.			

**Module SAFETEC C(R) xxxx PV**

**Dimensions**



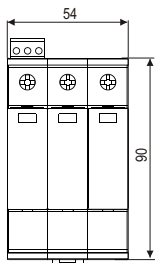
**Internal configuration**



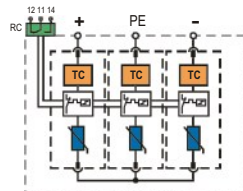
Module SAFETEC C(R) xxxx PV	75	300	600	1000
Weight per unit	45g	68g	74g	78g
Packaging dimensions	219 x 62 x 47mm			
Min. packaging quantity	12 pcs.			

**SAFETEC C(R) xxxx Y PV**

**Dimensions**



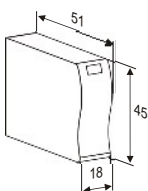
**Internal configuration**



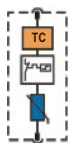
SAFETEC C xxxx Y PV	1000	1200	1500
Dimensions DIN 43880	3TE		
Weight per unit	396g	390g	400g
SAFETEC CR xxxx Y PV	1000	1200	1500
Dimensions DIN 43880	3TE		
Weight per unit	402g	396g	406g
Packaging dimensions (single unit)	109 x 76.5 x 60mm		
Min. packaging quantity	5 pcs.		

**Module SAFETEC C(R) xxxx Y PV**

**Dimensions**



**Internal configuration**

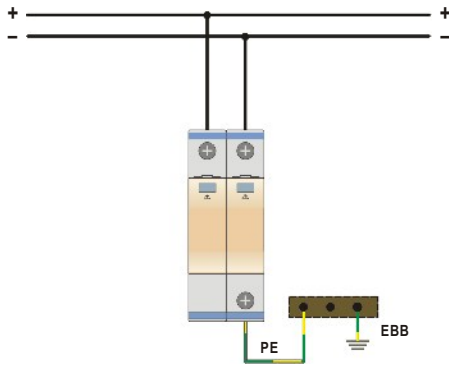


Module SAFETEC C(R) xxxx Y PV	1000	1200	1500
Weight per unit	74g	74g	76g
Packaging dimensions	219 x 62 x 47mm		
Min. packaging quantity	12 pcs.		

SAFETEC C(R) PV Series

Connections

SAFETEC C(R) xxxx PV



SAFETEC C(R) xxxx Y PV

