

DC CIRCUIT BREAKER 80/100/125A



SOLAR ACCESSORIES MANUAL

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BRING THE SAFE ELECTRICITY TO
THE ONES YOU LOVED

**Small volume and large current,
saving installation space**

The rated current 125A miniature circuit breaker is only 18mm wide, saving 30% space.



**Strong environmental adaptability and
reliable operation in extreme environment**

-5 °C ~ 40 °C ambient temperature application range, to meet the application needs of various occasions.



More reliable performance

Temperature rise $\leq 50K$, breaking capacity up to 6kA electrical life ≥ 4000 times.



Lighter operation

125A product has lighter operation force and is easy to operate



Contact indication window with clear position

The whole series of contact positions are visualized to avoid misoperation and more reliable use.



SCB8-125DC
Series DC Miniature Circuit Breaker



Application

SCB8-125DC series DC miniature circuit breaker (hereinafter referred to as circuitbreaker) is suitable for lines with rated current of 125A and below DC rated voltage of 250V and 500V. It is used for overloading and short-circuit protection of facilities and electrical equipment of DC power distribution system, and can be widely used in electric power, post and telecommunications, communication, industrial and mining enterprises and other industries. This product meets the requirements of GB14048.2, IEC60947-2

Model and Meaning

S	CB	8	125	DC
↓	↓	↓	↓	↓
Company Code	Circuit Breaker	Design Number	Frame size rated current (63, 125)	DC

Advantages

- Protection functions: overload, short circuit
- Rated short circuit breaking capacity i_{cu} up to 6 ka
- Non-polarity, easy wiring
- Rated current in up to 125a
- Rated voltage U_e up to 1000v
- Designed for pv, energy storage and other dc applications



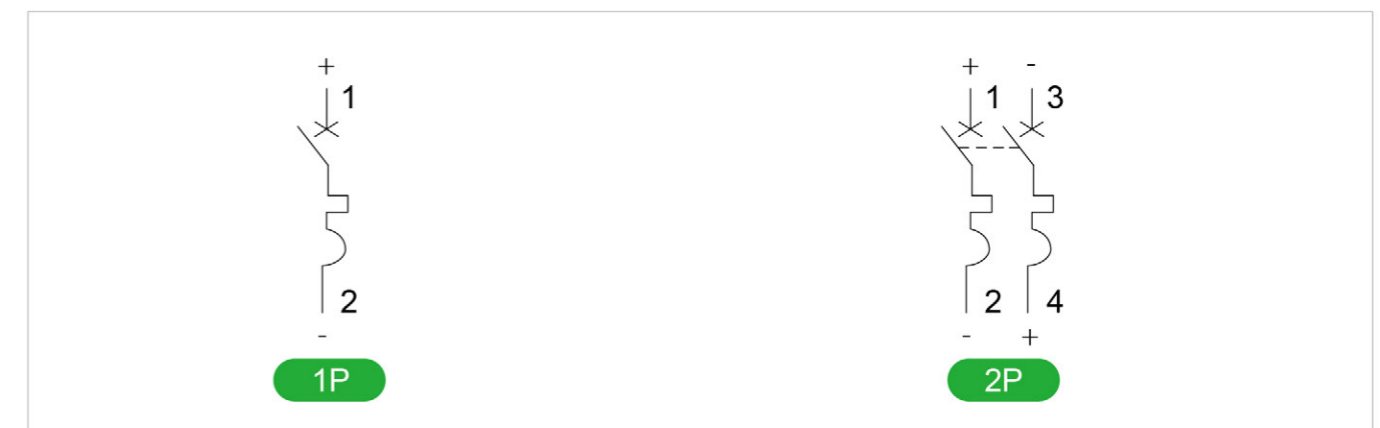
Operating conditions

- The maximum ambient air temperature does not exceed $+40^{\circ}\text{C}$, minimum is not less than -5°C and the average value does not exceed $+35^{\circ}\text{C}$
- The altitude of the installation site does not exceed 2000m
- The relative humidity of the atmosphere does not exceed 50% at the maximum ambient temperature of $+40^{\circ}\text{C}$. Relative humidity at high temperatures can be relatively high
- The monthly average maximum relative humidity of the wettest month is 90%, and the monthly average of the month. The minimum temperature is $+25^{\circ}\text{C}$ and takes into account condensation that occurs on the surface of the product due to temperature changes
- Pollution level is 2
- Installation categories are II, III
- Use TH35-7.5 steel mounting rails for installation
- The inclination of the mounting surface and the vertical surface does not exceed 5°
- Screw the wire tight

Features

SCB8-125DC DC circuit breaker is composed of outer casing, operating mechanism, thermal release, electromagnetic tripping contact system, arc extinguishing system, etc. It has overload and short circuit protection functions, unique design structure, powerful permanent magnet arc extinguishing system, and a mechanical life of more than 20,000 times. The appearance capability of 10kA and a mechanical life of more than 20,000 times. The appearance of the product is beautiful. The mounting rail is a TH35-7.5 standard steel mounting rail, and has the following features: the handle is designed on the front side of the front end, and the operation is simple. When the power supply goes in and out, in line with the characteristics of the power supply line, easy to install, saves the wire.

Wiring diagram



SCB8-125DC/1P



Main technical data

Frame size rated current	Pole	Rated voltage	Rated current	Rated ultimate short circuit capability		Instantaneous release current
				Breaking current	Breaking current	
63	1	DC250V	1/2/3/4/5/6 10/16/20/25 32/40/50/63	60000	10	8In-12In
125	1	DC250V	80 100 125	60000	10	8In-12In

SCB8-125DC/2P



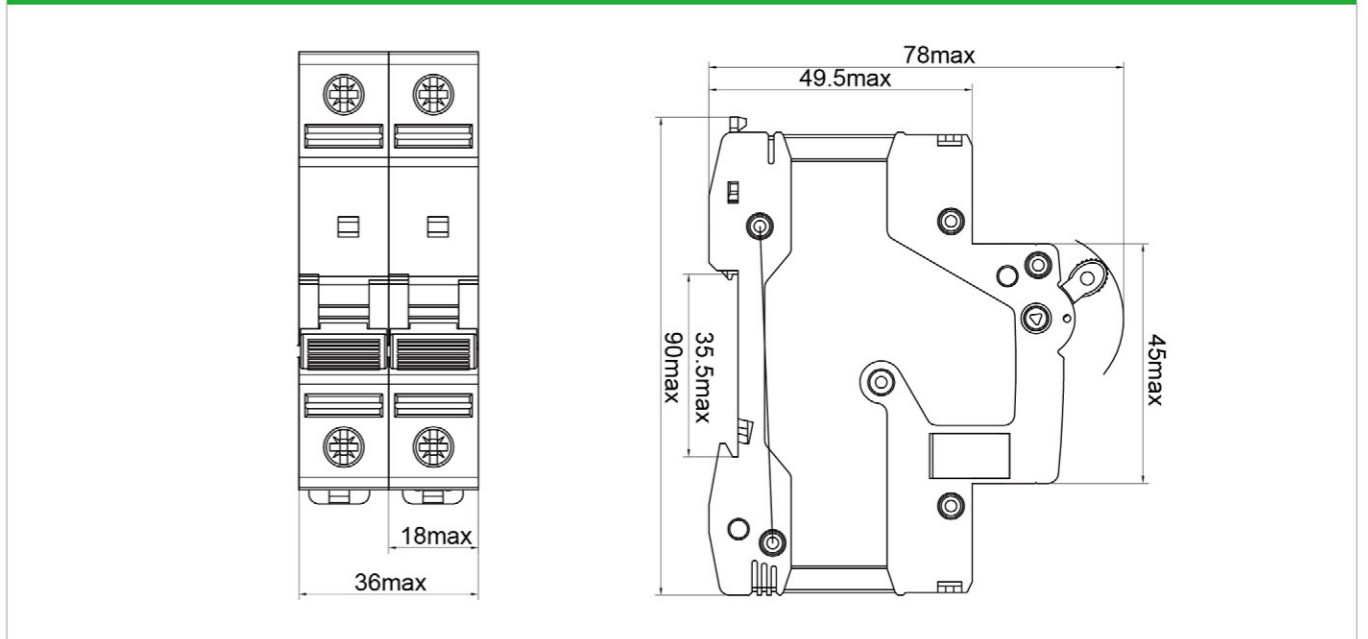
Main technical data

Frame size rated current	Pole	Rated voltage	Rated current	Rated ultimate short circuit capability		Instantaneous release current
				Breaking current	Breaking current	
63	2	DC550V	1/2/3/4/5/6 10/16/20/25 32/40/50/63	60000	10	8In-12In
125	2	DC550V	80 100 125	60000	10	8In-12In

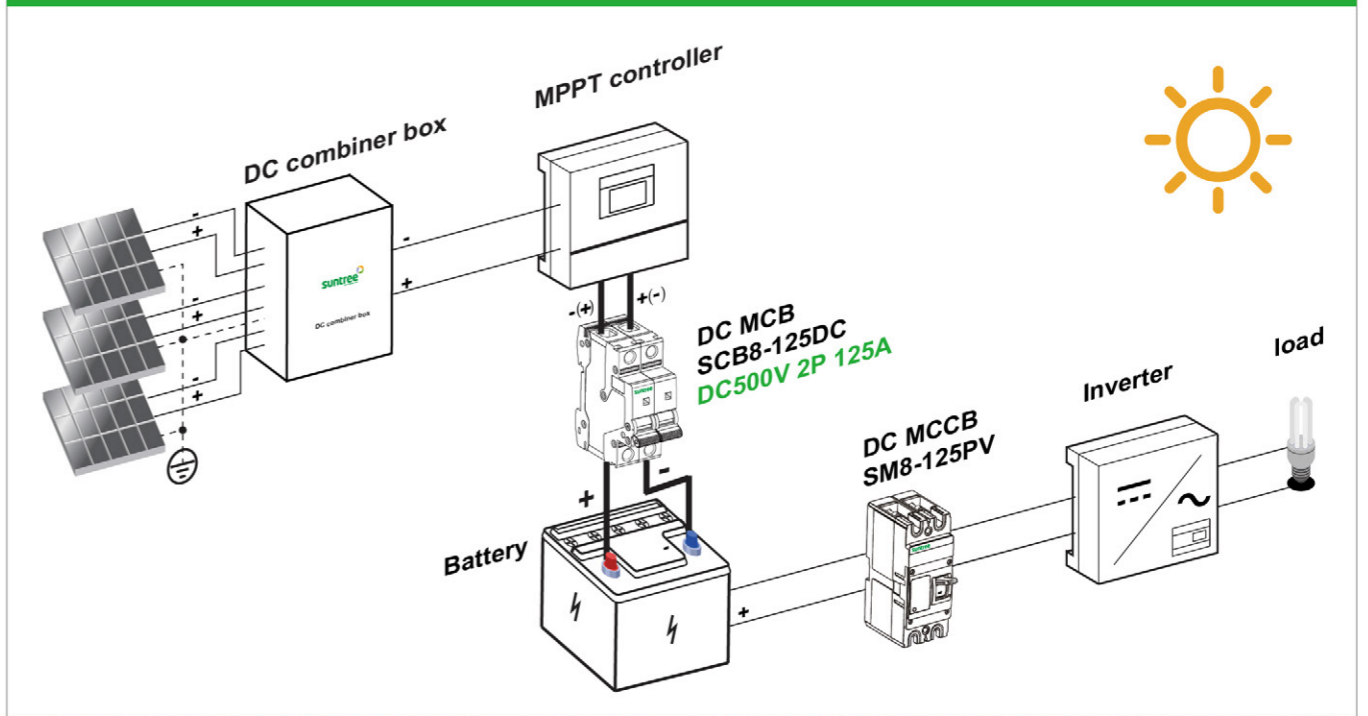
Standard time-current

Test	DC test current	Initial state	Time limit	Expected result	Result
a	1.05In	Cold state	t≤1h(In≤63A) t≤2h(In>63A)	No tripping	
b	1.3In	Right after test number a	t<2h(In>63A) t<1h(In≤63A)	Tripping	The current rises steadily to the specified value within 5S
c	8In	Cold state	t≤0.2s	No tripping	Close the auxiliary switch to turn on the power
	12In		t<0.2s	Tripping	

Wiring diagram



Application scenario



The maximum ambient air temperature does not exceed **+40°C**
Minimum is not less than **-5°C**
And the average value does not exceed **+35°C**