

SM8-250HPV PV Specially Used DC molded case circuit breaker

1500V ELECTRIC ELEMENT FOR THE PHOTOVOLTAIC

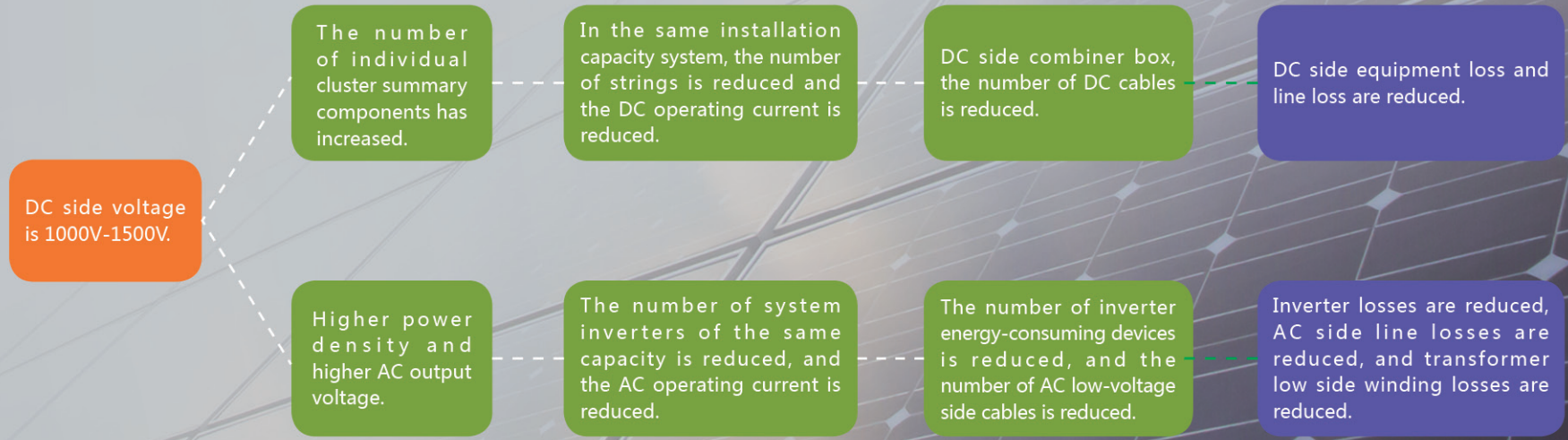


1500V Photovoltaic Accessories

1500V high-voltage components and corollary electrical equipment mean lower system cost and higher power generation efficiency, which will soon become the new favorite of the photovoltaic industry.

After the DC side input voltage is increased, more components can be connected per string, which can increase the string length by 50%. The DC cable used in the inverter is reduced, and the number of inverter and combiner boxes can be reduced accordingly. At the same time, the power density of the combiner box, inverter, transformer and other energy equipment is increased, the volume is reduced, and the workload in transportation and maintenance is also reduced, which is beneficial to the reduction of the cost of the photovoltaic system.

From a system point of view, higher input and output voltage levels can reduce AC/DC side line losses and transformer low-voltage side winding losses. The system efficiency of the power station is expected to be increased by 1.5–2%.





SM8-250HPV

PV Specially Used DC molded case circuit breaker

Product Description

SM8–250HPV series photovoltaic special DC molded case circuit breaker is suitable for DC grid circuit with rated voltage up to DC1500V and rated current of 250A. DC circuit breaker has overload long delay protection, short circuit instantaneous protection function, used to distribute electric energy and protect circuit and the power supply equipment is protected from the danger of overload, short circuit, etc.

The operating mechanism of the DC circuit breaker has the functions of quick closing and fast reading segmentation, compact structure, small size and convenient use.

Model Name and Meaning

SM8	-	250	H	PV	/	2	DC1500V	200
Product code: molded case circuit breaker.		Shell frame code: 250.	Segmentation capability code: H (15KA).	PV code: PV specially used		2:2P, shape, default: 3.	Rated working voltage: DC1500V/1200V/1000V.	Rated current: 100/125/160/200/225/250A.

Attachment specification

name	model	Attachment code	Attachment installation location	Control voltage
Auxiliary contact	AX	250PV	-	-
Alarm contact	AL	250PV	-	-
Shunt release	SHT	250HPV	right side installation	DC24V/AC230V/AC400V

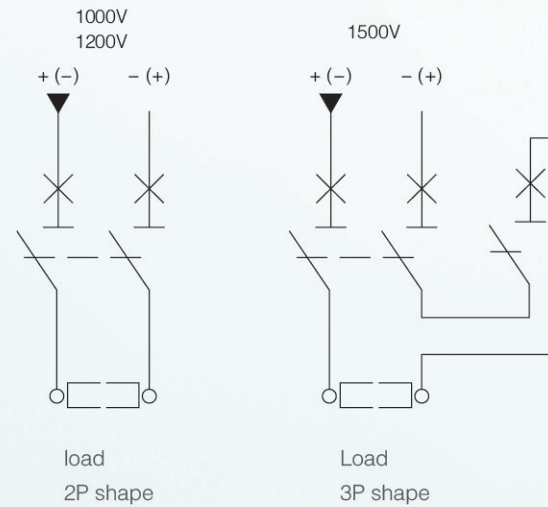
The main technical parameters

Product number	SM8-250HPV /2 1000V SM8-250HPV /2 1200V	SM8-250HPV /2 1500V
product name	PV DC MCCB PV DC MCCB	
Rated operating voltage Ue	DC1000V DC1200V	DC1500V
Rated insulation voltage Ui	1500V	1500V
Rated impulse voltage Uimp	12kV	12kV
Number of poles	2	3
Trip unit type	Thermomagnetic(Not adjustable), TMD Fixed	
Rated ultimate short-circuit segmentation capability Icu	Ue1200v 10kA Ue1000v 16kA	Ue1500v 20kA
Running segmentation capability Ics	Ue1200v 7.5kA Ue1000v 12kA	Ue1500v 15kA
Protective function	Long delay protection Ir	1In
	Instantaneous protection Ii	5In
Dimensions W × H × D	90 × 200 × 86mm	135 × 200 × 86mm

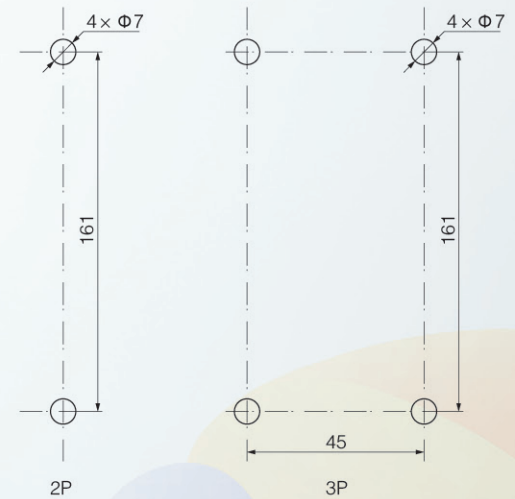
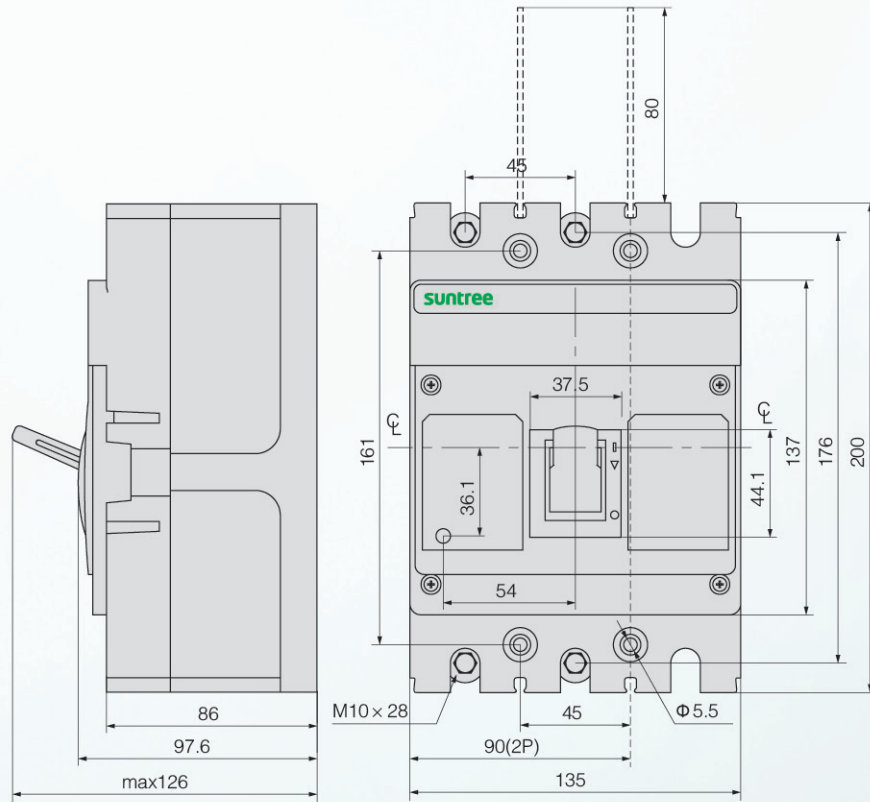
Thermal protection

Serial number	Experimental current	I/Ir	Appointed time	Initial state
1	Conventional non-tripping current	1.05	$> 1h(I_n \leq 63A)$	Cold state
			$> 2h(I_n > 63A)$	
2	Conventional discharge current	1.3	$\leq 1h(I_n \leq 63A)$	After the test according to the serial number 1
			$\leq 2h(I_n > 63A)$	

Wiring diagram



Shape and Installation Dimensions(mm)



Tolerance Table

Base size		Tolerance range
>	<	
0	30	± 0.2
30	50	± 0.3
50	80	± 0.5
80	120	± 0.6
120	180	± 0.7
180	250	± 0.8
250	315	± 1.0