



SM8HPV Series Specializing In PV Solar Moulded Case Circuit Breaker



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1. Application

With the development of solar industry, the large solar power factory are developed better and faster. People have higher request about the capability of the equipment which is applied for controlling and circuit breaker and isolator switch are necessary, especially for the inverter protection. Then, it is a new requirement for the low voltage components. In this case, Suntree researched and developed a new SM8-250HPV series moulded case circuit breaker which is specializing in photovoltaic solar system.

SM8HPV series specializing in PV solar moulded case circuit breaker (referred as circuit breaker as following) are using in DC power grid system, Ue 1000VDC, 1250VDC, 1500VDC. In 100A-630A. The circuit breaker are with the protection function of instantaneous short circuit and overload for solar PV system, protecting the system and components from the damage of over load and short circuit, etc.

The circuit breaker are comply a standard as following:
IEC 60947-1 (Low Voltage switch component and Control equipment, the first part: General Rule)
IEC 60947-2 (Low Voltage switch component and Control equipment, the second part: Circuit Breaker)

2. Normal Working Conditions

- 2.1 Installation altitude under 2000meters high
- 2.2 Working temperature -5°C ~ +50°C (temperature over 50°C, please negotiate with supplier)

2.3 Air Condition: when the temperature is 40°C, the humidity of air should not over 50%, the lower temperature, higher humidity allowed, such as 20°C, 90% humidity allowed but do not forget the water on the surface of product.

2.4 Pollution Level: Level 4

2.5 Installation Type: III

2.6 Magnetic field of installation must be within 5 times of the earth magnetic in any direction.

2.7 Installation in the medium without any explosion risk, without the air that can corrode the metal inside or cause damage to the insulation

2.8 Without the erode for the wind and snow

2.9 Installation Condition:

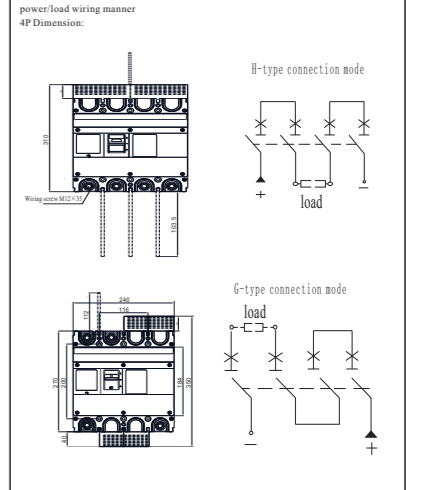
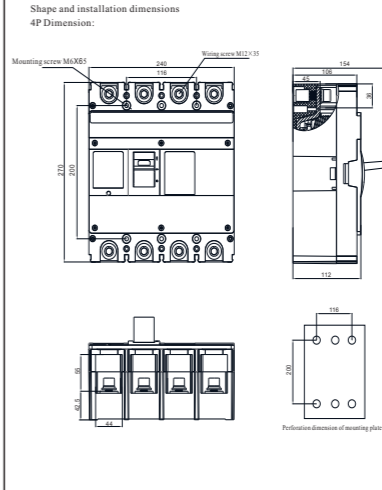
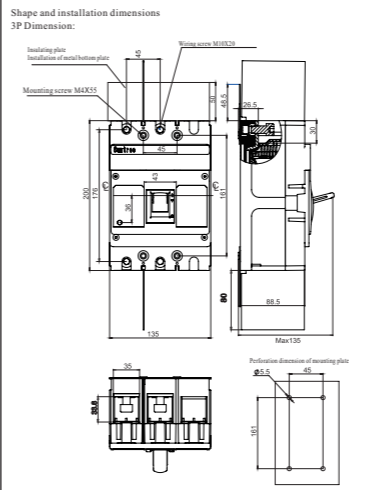
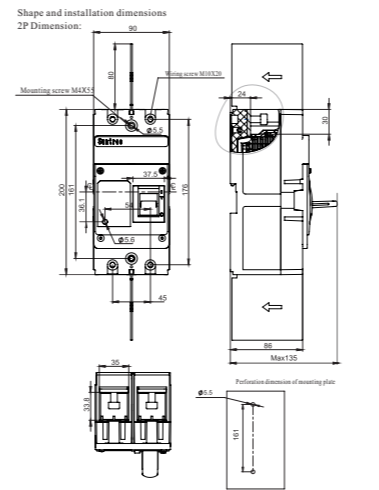
A. Install in the horizontal and vertical direction

B. The product should in the place where without obviously shock and assault

3. Model Explain:

S M8 H PV / 2 +
Company Design AF250 High voltage Specializing Pole :
Code Number AF630 for Solar PV 2:2P
Blank :3P
Blank:4P

00 + 250A + DC1000V
Accessories code Rated current Rated voltage
See table 3 100-630 2P:DC1000V
3P:DC1250V/DC1500V
4P:DC1000V/1250V/1500V



Accessories code	Type specification	SM8-250HPV/2	SM8-250HPV	SM8-630HPV
08	Alarm contact	-[G]-	-[G]-	-[G]-
10	Shunt release	-[R]-	-[R]-	-[R]-
20	Auxiliary contact	-[A]-	-[A]-	-[A]-
40	Shunt release and auxiliary contacts	-[R]-[A]-	-[R]-[A]-	-[R]-[A]-
60	Two sets of auxiliary contacts	-[A]-[A]-	-[A]-[A]-	-[A]-[A]-
18	Shunt release and alarm contacts	-[R]-[G]-	-[R]-[G]-	-[R]-[G]-
28	Auxiliary contacts and alarm contacts	-[A]-[G]-	-[A]-[G]-	-[A]-[G]-
48	Shunt release, auxiliary contacts and alarm contacts	-[R]-[A]-[G]-	-[R]-[A]-[G]-	-[R]-[A]-[G]-
68	Two sets of auxiliary contacts and alarm contacts	-[A]-[A]-[G]-	-[A]-[A]-[G]-	-[A]-[A]-[G]-

Shunt release control voltage : DC24V/AC230V/AC400V

4. Specifications and main technical parameters are shown in table.

Model	SM8-250HPV/2	SM8-250HPV	SM8-630HPV
Rated current In(A)	100,125,140,160,180,200,225,250	100,125,140,160,180,200,225,250	350, 400, 500, 630
Pole	2	3	4
Rated insulation voltage U _i (V)	DC1500V		
Rated working voltage U _e (V)	DC1000V	DC1250V/DC1500V	DC1000V-DC1500V
Airng distance (mm)	80	80	100
Rated limit short	DC100V	20kA (Ics=95%Icu)	20kA (Ics=100%Icu)
Rated breaking capacity I _{cn} kA	DC120V	-	15kA (Ics=100%Icu)
Short circuit instantaneous tripping	DC150V	-	15kA (Ics=100%Icu)
Actuator current value	40A (Note: below 100A tripping current is 100A.)		
Service life (Times)	8000	8000	5000

If there are any special requirements, please consult with the manufacturer.

5. Ordering instructions:

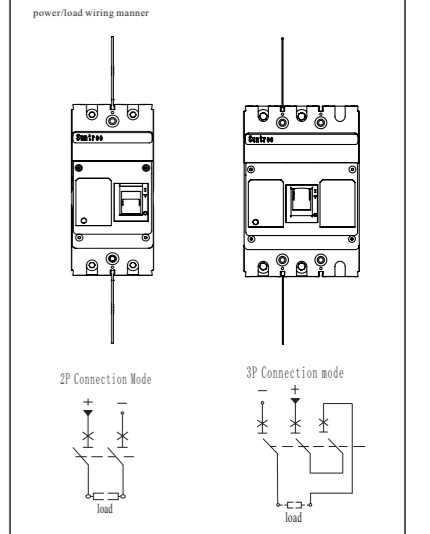
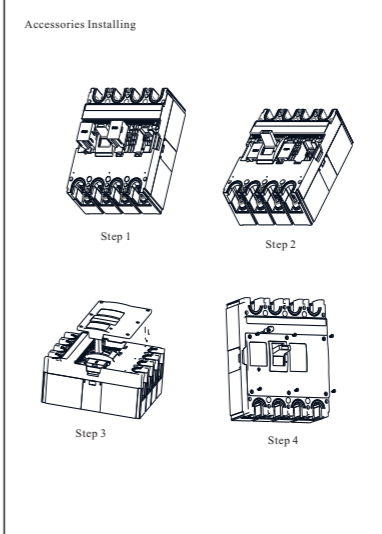
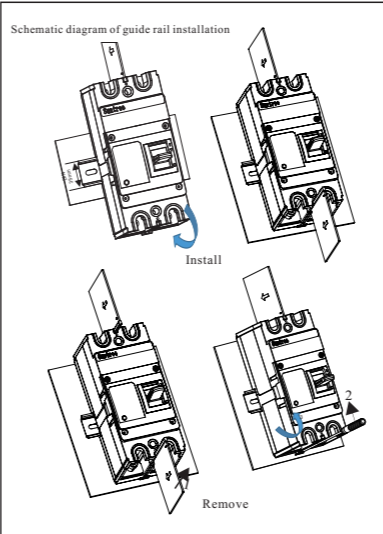
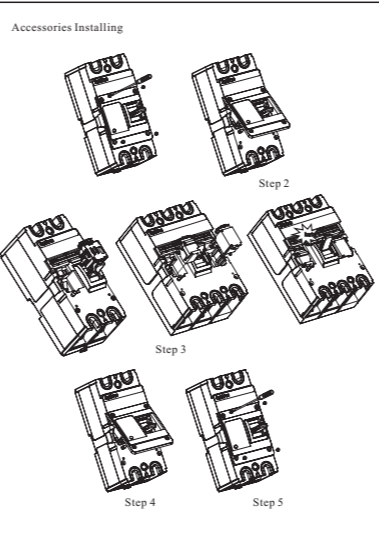
When ordering, please specify the moulded case circuit breaker number, name and rated current value, indicating quantity.
Example: SM8-250HPV 200A 50PCS
It means the order is 50pcs of DC 1500V 200A MCCB.

6. Company commitment

The user will observe the use, storage conditions and seal of the product. Under good conditions, within eighteen months from the date of production, If the product is damaged due to manufacturing quality problems, it may not be able to make it normal. The company is responsible for repairing or replacing it without compensation. Surpass warranty, the period is subject to paid repair. However, the damage caused by the following circumstances, even paid repairs during the warranty period:
(1) improper use, maintenance and storage;
(2) self refitting and improper maintenance;



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Operation Manual
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