

1. Product introduction



- 1. Unique shape for Suntree;
- 2. There is an independent arc extinguishing chamber in each pole;
- 3. At the same time of using arc extinguishing chamber, magnetic blowing is added;
- 4. High arc extinguishing ability and short arc burning time;
- 5. The bilateral clamping structure of moving contact makes the temperature rise more stable;
- 6. The design of static contact for arc striking makes the arc enter the arc extinguishing chamber easily;
- 7. The new exhaust design makes the arc lead out more smoothly;
- 8. Easy wiring and standard wiring end;
- 9. It can be equipped with arc divider and terminal cover.

2. Application

With the development of solar energy industry, solar photo-voltaic power plants with large installed capacity are also rapidly increasing. People also put forward higher and higher requirements for the performance of control and protection appliances in large solar photo-voltaic power plants, especially for the protection and isolation of intervers. This puts forward new requirements for low-voltage components. To this end, our company has developed a new generation of SGL8N-2 series PV special DC Switch-Disconnecter, which is suitable for DC power system. It is mainly installed in low-voltage distribution circuit that are infrequently connected and disconnected, and plays the role of isolating and disconnecting lines. Also it is suitable for energy storage, power, construction and other industries, and it is used in dc power grid circuit with rated voltage DC1500V and rated current 32A-500A.

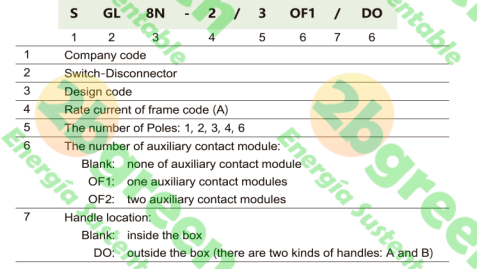
3. Related standard

IEC60947-3 IEC60947-1

4. Environmental conditions

- 1. The altitude of the installation site is less than 2000m;
- 2. Ambient medium temperature shall not be higher than +55°C and not lower than -5°C and the average temperature within 24 hours shall not exceed 35°C (except for special orders);
- 3. The relative air humidity at the installation site shall not exceed 50% when the highest temperature is +55°C. Higher relative humidity is possible at lower temperatures, and for example it can up to 90% at 20 °C. Special measures should be taken for occasional condensation due to temperature changes;
- 4. The relative humidity of the air in the humid tropics does not exceed 95% at +25°C;
- 5. The pollution degree is 3;
- 6. The installation category of the main circuit is Class III, and the installation category of the auxiliary circuit and control circuit not connected to the main circuit is class II;
- 7. In hot and humid zone, the circuit breaker can withstand the influence of hot and humid, salt spray and mildew;
- 8. Free from explosion hazard, conductive dust, metal corrosion and damage;
- 9. Free from rain and snow.

5. Model meaning



6. Technical data

6.1 Basic data

Rated operational voltage Ue	DC 1000V, DC 1250V, DC 1500V
The number of poles	1, 2, 3, 4, 6
Utilization category	see the form below
Frame current	320A
Rated insulation voltage Ui	1600V
Rated operational current Ie	32A~500A
Rated impulse withstand voltage Uimp	12kV
Rated short-time withstand current Icw	10kA/1s
Rated short-time making capacity	15kA
Mechanical endurance	8000
Electrical endurance	1000
Mode of connection	Use crimping terminal or copper bar to connect
Maximum sectional area of wire	150mm ² × 2 (two wires)
Tightening torque for terminal	10N · m
Mounting type	screw mounting
Mounting location of handle	inside the box or on the door
Standard	IEC 60947-3, GB/T14048.3
Protection class	IP20
Operating temperature	(-20~+70) °C (no load shedding at 60 °C)
Storage temperature	-50 ~ +70 °C
Elevation	≤ 2000m
Pollution degree	3
Certificates	CCC, TUV, CB, CE

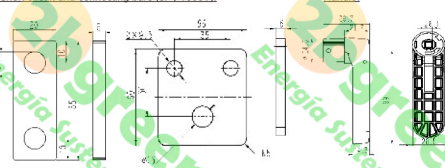
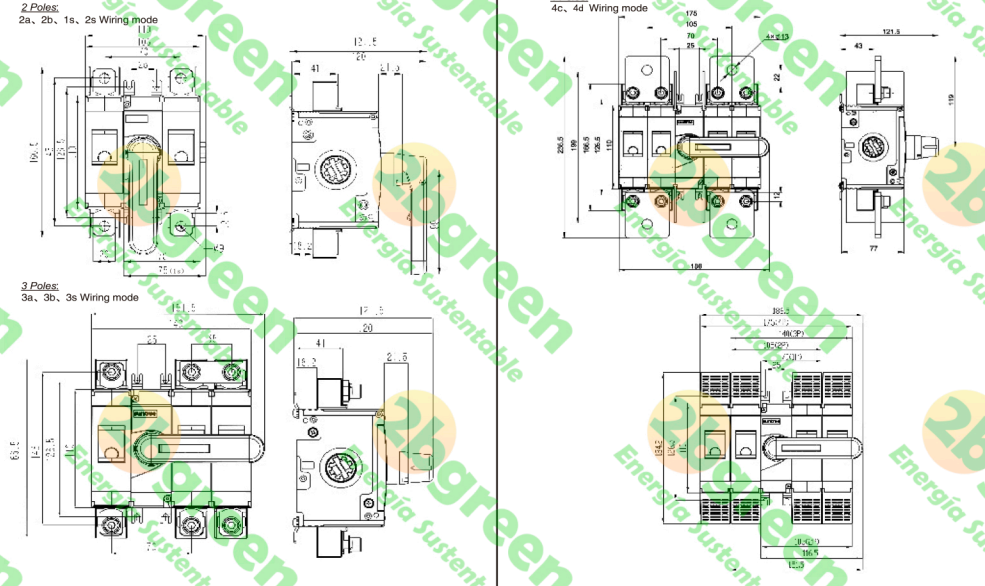
Table 1

6.2 Drop Capacity Coefficient

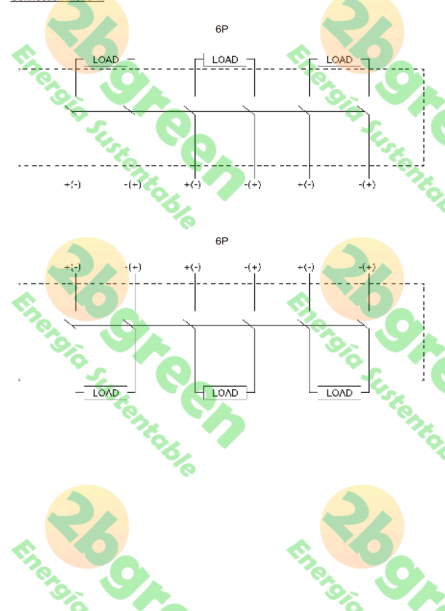
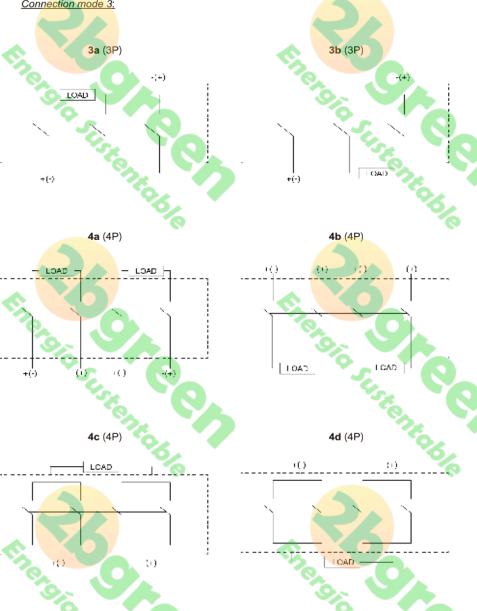
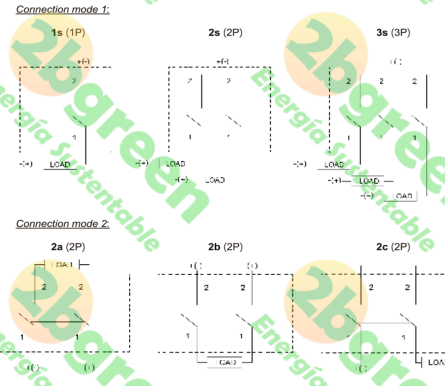
Specification	Connecting type	Temperature			
		40 °C	50 °C	60 °C	70 °C
below 200A	2P	1	1	1	1
	3P	1	1	1	1
	4P	1	1	1	1
	6P	1	1	1	1
250A	2P	1	1	0.95	0.88
	3P	1	1	0.95	0.85
	4P	1	1	0.95	0.9
	6P	1	1	0.95	0.9
320A	2P	1	1	0.95	0.9
	3P	1	1	0.95	0.9
	4P	1	1	0.95	0.9
	6P	1	1	0.95	0.85
400A	2P	1	1	0.95	0.85
	3P	1	1	0.95	0.85
	4P	1	1	0.95	0.85
	6P	1	1	0.95	0.85
500A	2P	1	1	0.95	0.85
	3P	1	1	0.95	0.85
	4P	1	1	0.95	0.85
	6P	1	1	0.95	0.85

The above data were measured in the laboratory according to GB/T 14048.3 standard conditions.

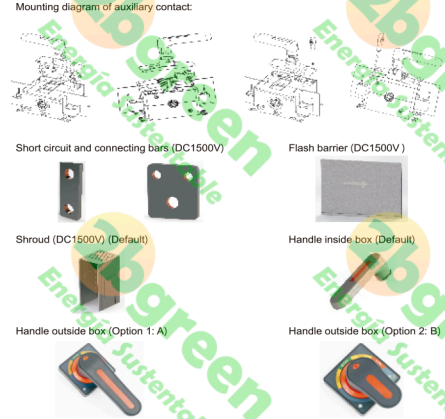
7. Installation Dimension and Overall Dimension



8. Circuit diagram



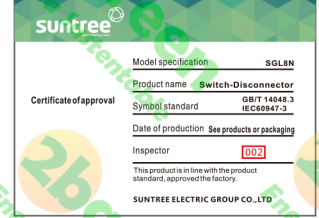
9. Accessory



10. Ordering information

When ordering, please specify:
 Name: Load-Disconnecter Switch; Model: SGL8N-2;
 Number of Poles: 3; Accessory: one auxiliary contact module;
 Rated current: 315A; Handle outside box: A;
 And finally, please indicate the purchase quantity.
 For example: Load-Disconnecter Switch, SGL8N-2/3-OF1/315A/A quantity: 200.
 For special specifications, please consult with us before ordering. Contact us: 400-021-6828

Operating Manual for SGL8N Series Switch-Disconnecter



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