

Photovoltaic Miniature Circuit Breaker

YCB8s-63PVn DC MCB



General

YCB8s-63PV photovoltaic dedicated DC circuit breaker is mainly used in solar photovoltaic power generation systems. The maximum working voltage can reach DC1200V, and the rated current is up to 63A. It is used for overload and short circuit protection of the line, and can quickly cut off the fault current of the DC distribution system, protecting the important components in the solar power generation system - photovoltaic modules from the harm of DC side reverse current and AC side feedback current caused by inverter faults, ensuring the reliable operation of the solar photovoltaic power generation system.

Standards: IEC60947-2

Features

The product can achieve non-polar wiring, ensuring reliable equipment safety.

Type designation

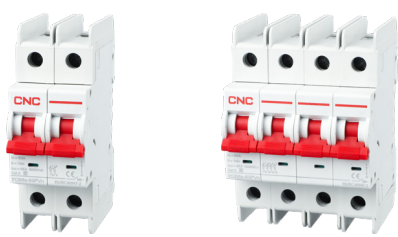
YCB8s - 63 H PVn 2P 20A DC600

Product name	Shell frame	Breaking capacity	PV DC	Number of poles	Rated current	Operating voltage
YCB8s	63	H	PVn	2P	20A	DC600
YCB8s	63	Default:6KA H:10KA	PVn:Photovoltaic DC non-polarity	1P 2P 3P 4P	1A 2A 3A 4A 6A 10A 16A 20A 25A 32A 40A 50A 63A	DC300 DC600 DC900 DC1200

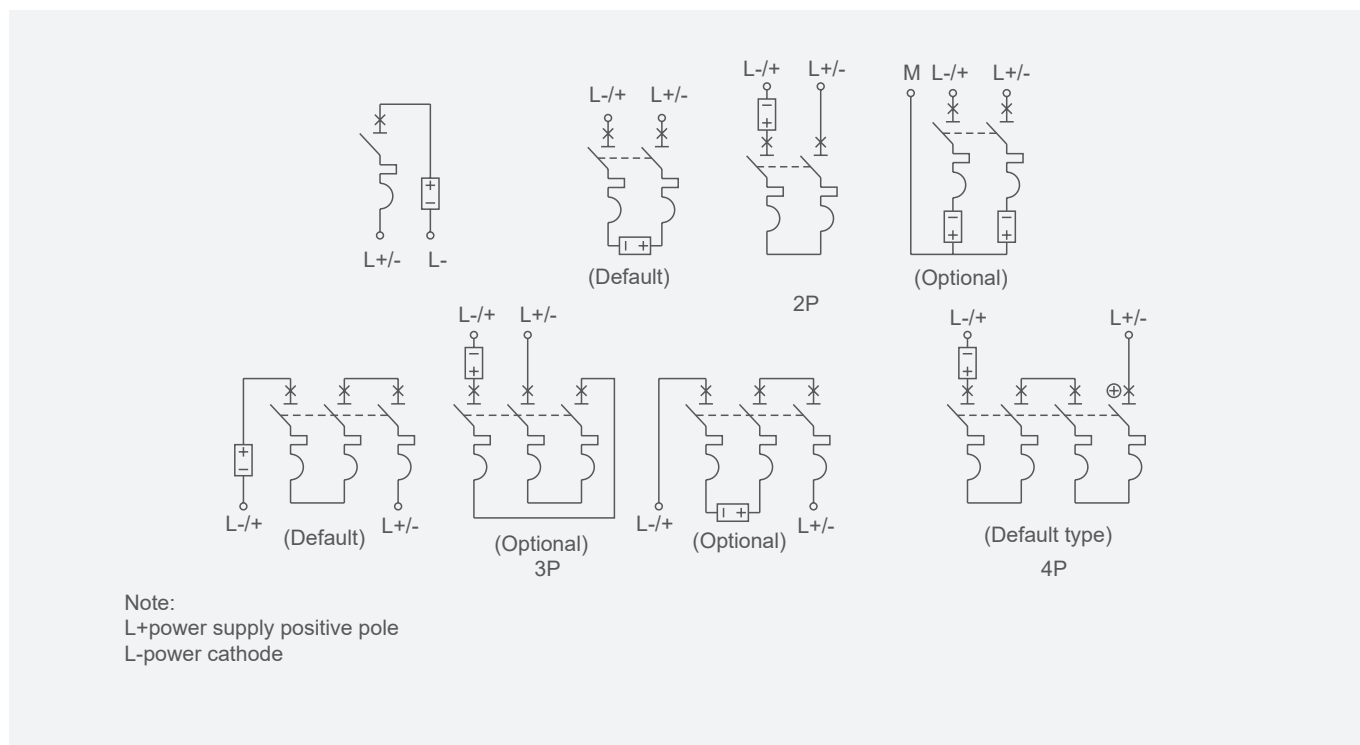
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Technical data

Appearance diagram				
Number of poles	1P	2P	3P	4P
Rated operating voltage Ue (V)	DC300	DC600	DC900	DC1200
Rated insulation voltage Ui (V)	DC300	DC600	DC900	DC1200
Rated impulse withstand voltage Uimp (KV)	6			
Rated frame current (A)	63			
Rated current In (A)	1,2,3,4,6,10,16,20,25,32,40,50,63			
Ultimate short-circuit breaking capacity Icu (KA)	Default: 6; H:10			
Instantaneous tripping characteristic	B,C,K			
Service life (times)	Mechanical 20000, electrical life 1500			
Protection degree	IP20			
Environmental temperature for use	-25°C~+40°C			
Altitude	≤ 2000m			
Wiring ability(mm²)	25			
Connection	both upper and lower incoming lines are acceptable			
Use Category	A			
Standard	IEC60947-2			

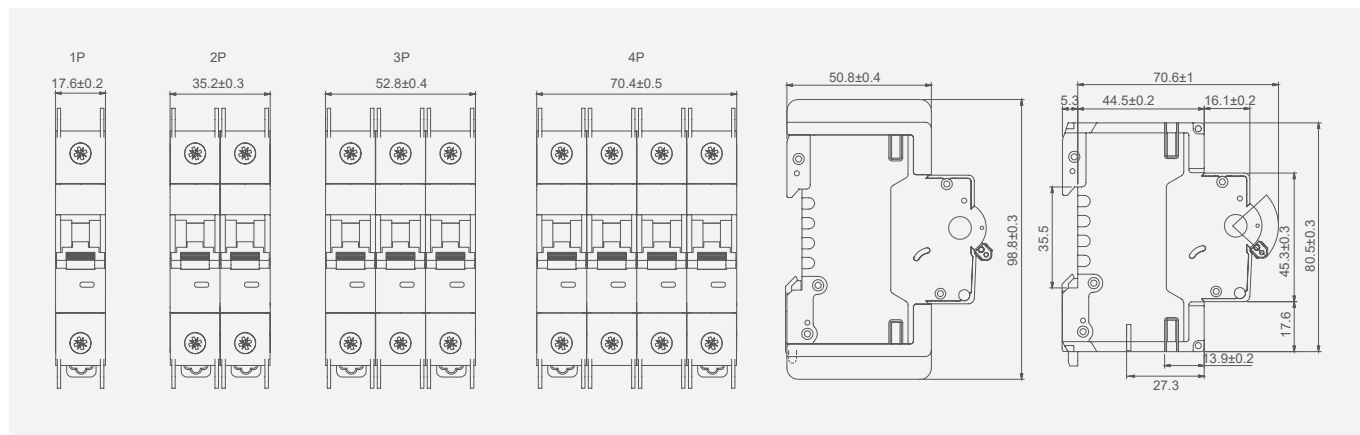
Wiring diagram



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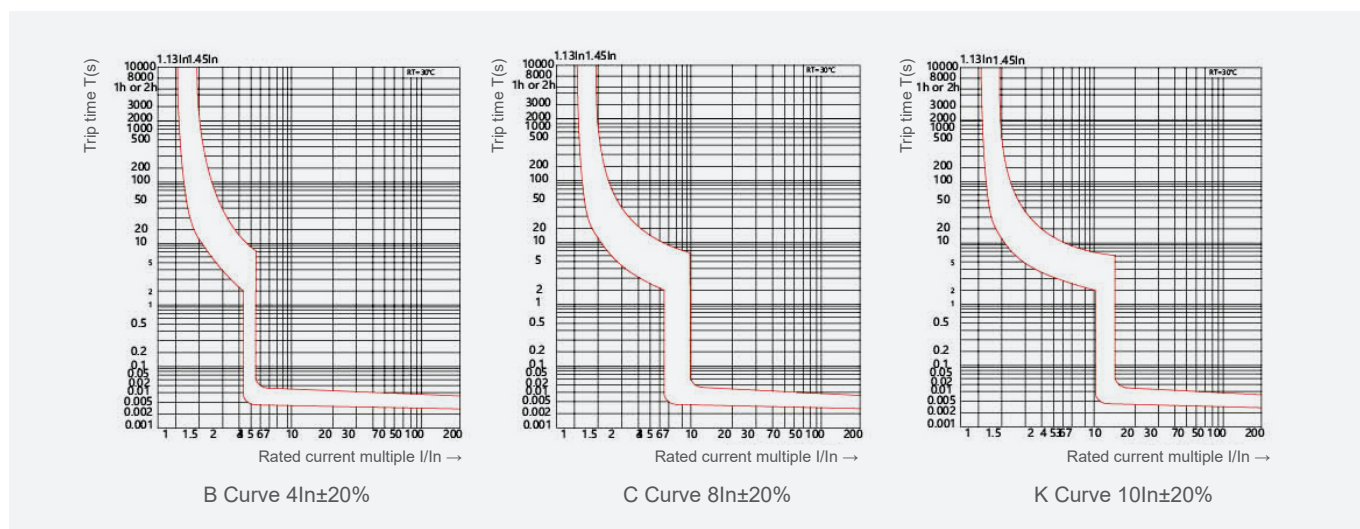
Overall and mounting dimensions



Product tripping characteristics

Rated current(A)	Overload tripping characteristics		Instantaneous tripping characteristics(A)
	1.05In agreed non tripping time H (cold state)	1.30In agreed tripping time H (hot state)	
In ≤ 63	1	1	B(4In±20%) C(8In±20%) K(10In±20%)
In > 63	2	2	

Release curve diagram



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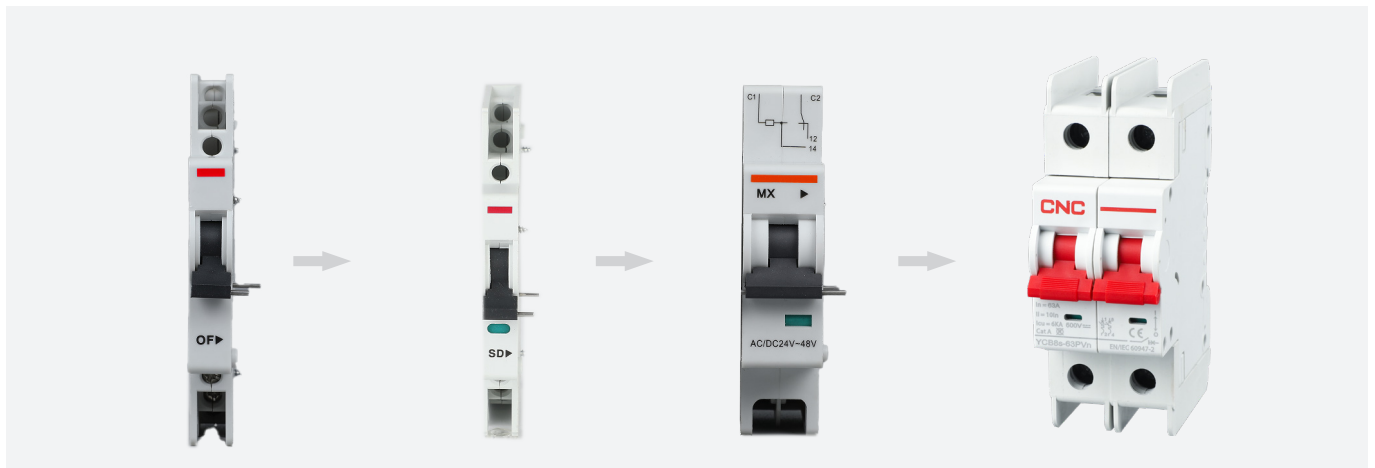
Temperature correction factor table

Current correction value used in different environments

Rated current(A)	Ambient temperature corresponding to rated current (A)											
In(A)	-25°C	-20°C	-10°C	0°C	10°C	20°C	30°C	35°C	40°C	50°C	60°C	75°C
6A	10.12	9.77	9.03	8.26	7.49	6.75	6	5.59	5.19	4.75	4.62	/
10A	17.41	16.75	15.41	14.04	12.71	11.35	10	9.09	8.21	7.9	8.7	7.86
16A	21.72	21.15	20.15	19.12	18.08	17.04	16	15.49	15.1	14.38	13.52	12.75
20A	25.86	25.79	24.61	23.47	22.32	21.16	20	19.43	18.83	18.58	17.1	16.3
25A	32.41	31.74	30.37	28.98	27.69	26.35	25	24.33	23.65	23.3	24.7	23.8
32A	44.83	43.62	41.29	38.96	36.67	34.33	32	30.83	29.67	30.7	30.8	30
40A	50.34	49.35	47.51	45.62	43.73	41.87	40	39.04	38.11	38.6	36.2	35.8
50A	63.79	62.48	59.99	57.48	54.98	52.5	50	48.76	47.48	47.1	47.5	46
63A	80	78.46	75.38	72.28	69.17	66.09	63	61.46	59.93	55.6	53.8	52.4

Accessories

The following accessories are suitable for YCB8s-63PV series, which can provide the functions of remote control of circuit breaker, automatic disconnection of fault circuit, status indication (breaking/closing/fault tripping).



- The total width of the accessories assembled is within 54mm, the order and quantity from left to right: OF, SD(3max) + MX, MX+OF+MCB, SD can only assemble up to 2 pieces ;
- Assembled with the body, no tools required;
- Before installation, check whether the technical parameters of the product meet the requirements of use, and operate the handle to open and close several times to check whether the mechanism is reliable.

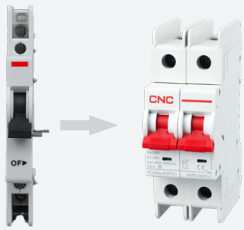
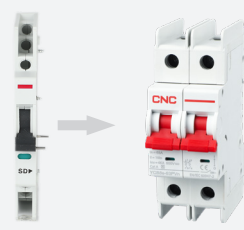
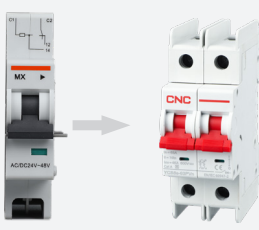


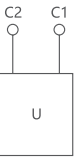
Miniature circuit breaker accessories

- Auxiliary contact OF
Remote indication of closing/opening status of circuit breaker.
- Alarm contact SD
When the circuit breaker fault trips, it sends out a signal, together with a red indicator on the front of the device.
- Shunt release MX
When the power supply voltage is 70%~110%U_e, the remote control circuit breaker trips after receiving the signal.
- Minimum making and breaking current: 5mA(DC24V)
- Service life: 6000 times (operating frequency: 1s)

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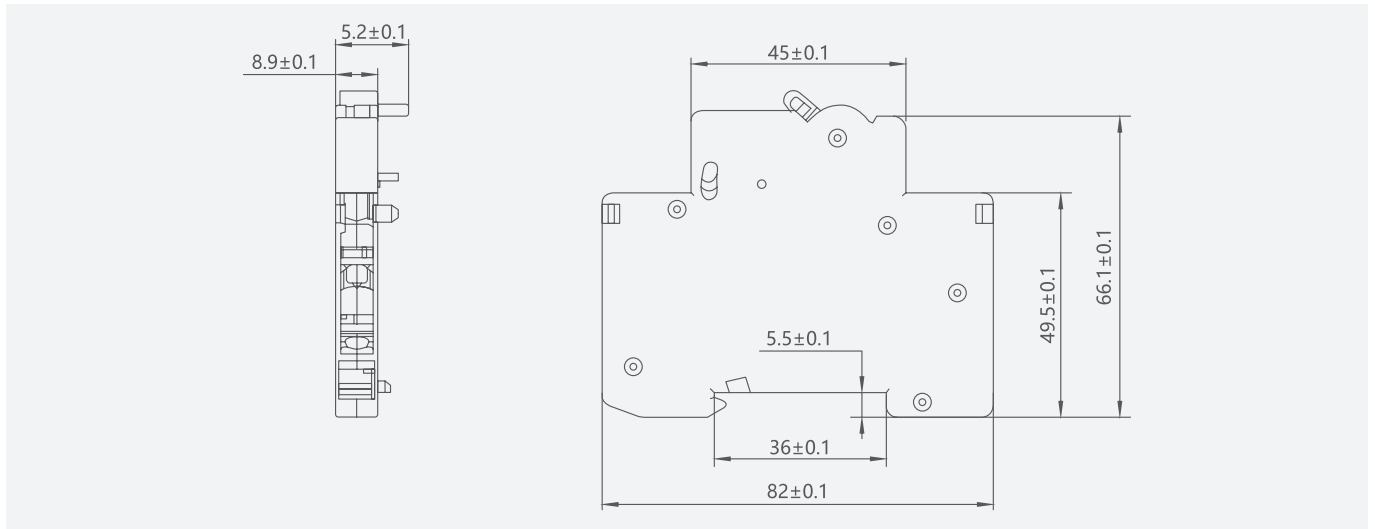
Model	YCB8s-63 OF	YCB8s-63 SD	YCB8s-63 MX
Appearance			
Types			
Number of contacts	1NO+1NC	1NO+1NC	/
Control voltage (V AC)			110-415 48 12-24
Control voltage(V DC)			110-415 48 12-24
Working current of contact	AC-12 Ue/Ie: AC415/3A DC-12 Ue/Ie: DC125/2A		/
Shunt control voltage			Ue/Ie: AC:220-415/ 0.5A AC/DC:24-48/3
Width(mm)	9	9	18
Applicable Environmental Conditions and Installation			
Storage temperature(°C)	-40°C~+70°C		
Storage humidity	the relative humidity does not exceed 95% when at +25°C		
Protection degree	Level 2		
Protection degree	IP20		
Installation environment	Places without significant vibration and impact		
Installation category	Category II , Category III		
Installation method	TH35-7.5/DIN35 rail installation		
Maximum wiring capacity	2.5mm ²		
Terminal torque	1N·m		

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Overall and mounting dimensions(mm)

OF/SD Outline and installation dimensions



MX+OF Outline and installation dimensions

