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CNC Deliver
Power For Better Life

DC SERIES

- RT18PV Series
Photovoltaic Fuse
- YCS6-DC
Surge Protector
- YCB9-80DM
DC Circuit Breaker
- YCM3
DC Molded Case Circuit Breaker

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YCB9-80DM

DC Circuit Breaker



+ CNC Electric Group Co.,Ltd.

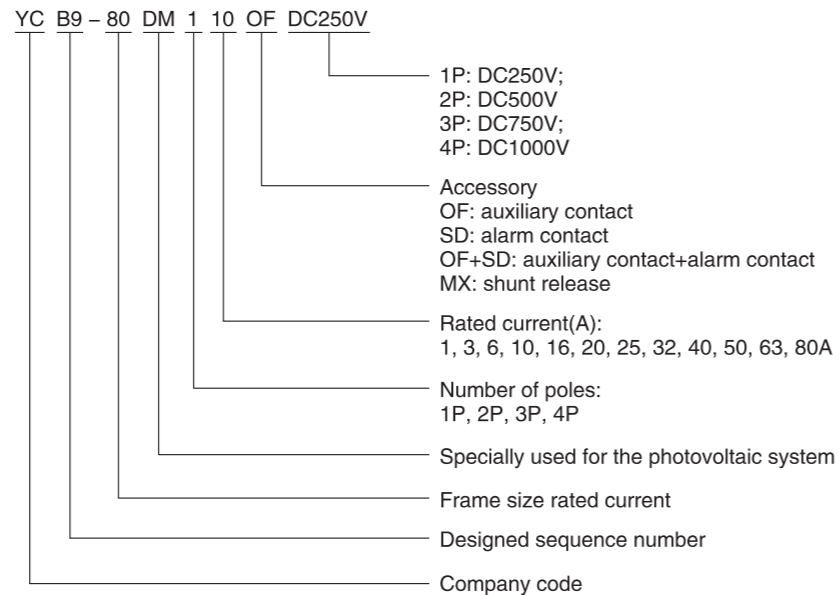
● Application

YCB9-80DM DC series circuit breaker is specially used for the photovoltaic system, it's rated working voltage can be up to DC1000V. The circuit breaker adopts a special extinguishing and current limiting system, which can quickly switch off the fault current of the DC distribution system, to protect photovoltaic module, the important component in solar power generation system from the harm of high DC reverse current and AC feedback current caused by inverter failure, and ensure the reliable operation of solar photovoltaic power generation system.

● Operation Conditions

- Ambient temperature: $-25^{\circ}\text{C}\sim+40^{\circ}\text{C}$, the average during 24 hours should not exceed $+35^{\circ}\text{C}$; if more than $+40^{\circ}\text{C}$ or less than -25°C , contact with manufacturer;
- The atmosphere condition: $\leq 95\%$
- Altitude: $\leq 2000\text{m}$, if exceed 2000m, altitude derating is required;
- Pollution degree: II

● Type Designation



YCB9-80DM

DC Circuit Breaker

Specifications

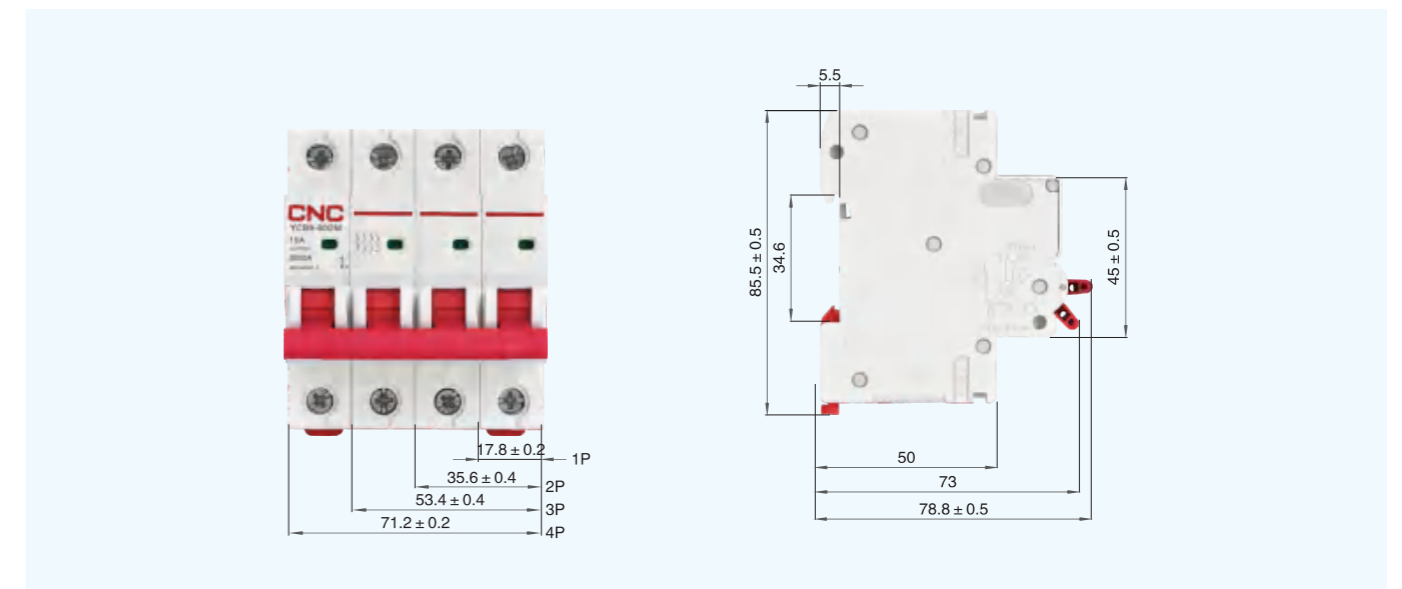
Model	YCB9-80DM			
Number of poles	1P	2P	3P	4P
Rated operational voltage(Ue)	DC250V	DC500V	DC750V	DC1000V
Rated current In(A)	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63, 80			
Rated short circuit breaking capacity Icn(kA)(T=4ms)	6	6	6	6
Instantaneous tripping type	for power distribution			
Rated impulse withstand voltage Uimp(kV)	4			
Rated insulation voltage Ui(V)	1200			
Mechanical life (times)	20000			
Electrical life (times)	10000			
Accessory	Shunt release, Under voltage release			
Maximum wiring capacity	25mm ²			

Wiring Method for Ungrounded System

Circuit diagram	Fault influence			$\leq \text{DC}500\text{V}$	DC500~750V	DC750~1000V
	Fault A	Fault B	Fault C			
	No influence	Maximum short circuit Isc	No influence			

Note: Up and down into the line, take the down into the line as an example to ensure that the installation method does not occur secondary ground fault.

Overall and Mounting Dimensions(mm)



YCS6

Surge Protector



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● Application

Surge protector is apply for new energy solar power generation system. The maximum continuous working voltage of DC500V, 1000V and 1200V.Installed on the DC circuit power system, the indirect lightning current, DC lightning current or other transient overvoltage protection when the system or other reasons due to lightning surge overvoltage protector, immediately nanosecond time rapid conduction, the over-voltage surges into the earth, so as to protect the electrical equipment online.

DC series is plug-in structure, module failure can be quickly replaced; lightning protection module failure, the indicate window color from green to red and send the alarm signal to the remote connection which in the remote communication terminal of alarm equipment (plus add remote device).

● Working Ambient

- Ambient temperature is not higher than +40℃, not less than -25℃, relative humidity is not higher than 95%;
- The location of the installation height of not more than 2000 meters;
- The pollution level 3;

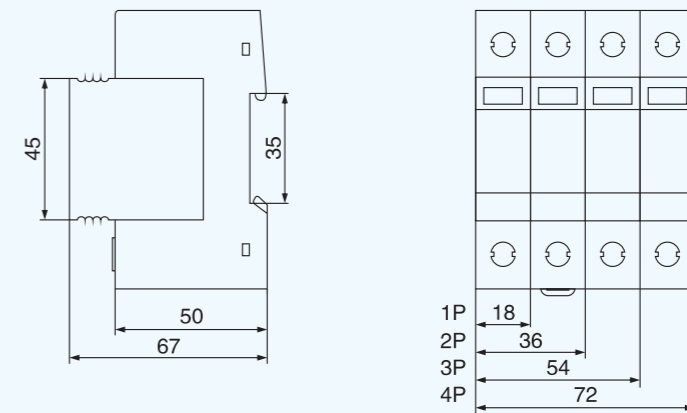
YCS6

Surge Protector

● Main Technical Data

Type	YCS6-D20				YCS6-C40				YCS6-B60				YCS6-B80			
Maximum continuous operating voltage UC:(V)	500	800	1000	1200	500	800	1000	1200	500	800	1000	1200	500	800	1000	1200
Nominal discharge current In:(kA)	10				20				30				40			
Max discharge current I _{max} (kA)	20				40				60				80			
Voltage protect level Up(kA)	≤1.5	≤2.3	≤3	≤3.3	≤1.8	≤2.9	≤3.6	≤3.8	≤2.1	≤3.3	≤4.2	≤4.3	≤2.2	≤3.4	≤4.4	≤4.6
Corresponding time (ns)	< 25															
Working Temperature	Normal range: -5~+40℃; Extended Range: -40~+85℃															
Relative humidity	Indoor temperature conditions: 30% ~ 90%															
Indicate Window	Normal: Green; Failure: Red															
IP	IP20															
Leakage current 0.75U 1mA(uA)	≤20															
Poles	1P/2P/3P/4P															
Minimum cross-sectional L/N(mm ²)	2.5				4				4				4			
Minimum ground wire cross-sectional(mm ²)	4				6				6				6			
Fuse or circuit breaker selection(A)	32				32				63				63			
Installation	35mm Standard Din Rail															
Case Material	UL94-V0 Flame retardant plastics															

● Outline Dimension



YCM3

DC Molded Case Circuit Breaker



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● Application

YCM3 series of photovoltaic DC MCCB is widely used in large-scale photovoltaic power generation and distribution system, including photovoltaic junction box, photovoltaic inverters, photovoltaic DC cabinet etc.. It is used for rated voltage DC 1000V, rated current up to 250A, can quickly disconnect the DC distribution system caused by current fault to ensure the solar photovoltaic power generation system reliable operation.

● Electrical Characteristics

Standard	IEC60947-2
Pole	4P
Max current	250A
Electrical performance	
Rated working voltage (Ue)	1000V DC
Rated current (In)	125A,160A,200A,250A
Rated insulation voltage (Ui)	1000V DC
Rated impulse voltage (Uimp)	8kV
Breaking capacity Ics(%Icu)	100%
Power frequency withstand voltage	3.8kV/Min
Max breaking capacity	20kA
Breaking capacity	15kA
Tripping type	Thermal magnetic type
Operation life	
Mechanical life	14000
Electrical life	5000
Outline dimension (L x W x H)	161x140x124, 257x198x106.5, 280x280x115.5
Ambient temperature	-45°C~+70°C

RT18PV-32

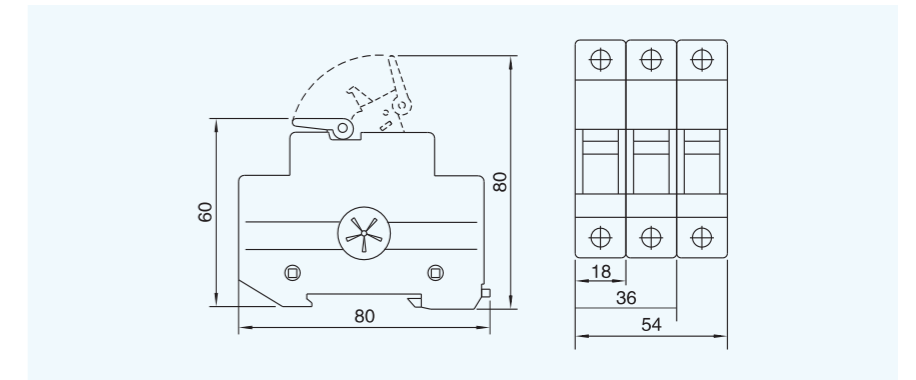
Photovoltaic Fuse



● Photovoltaic Fuse

- Rated Voltage: 1000VDC
- Class of Operation: gPV
- Standard: IEC 60269-6

● Outline Dimension



RT18PV-32H

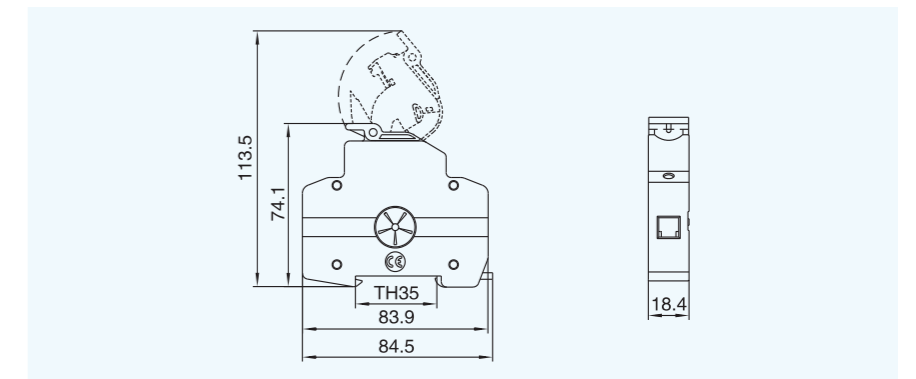
Photovoltaic Fuse



● Photovoltaic Fuse

- Rated Voltage: 1000VDC
- Class of Operation: gPV
- Standard: IEC 60269-6

● Outline Dimension



RT18PV-63

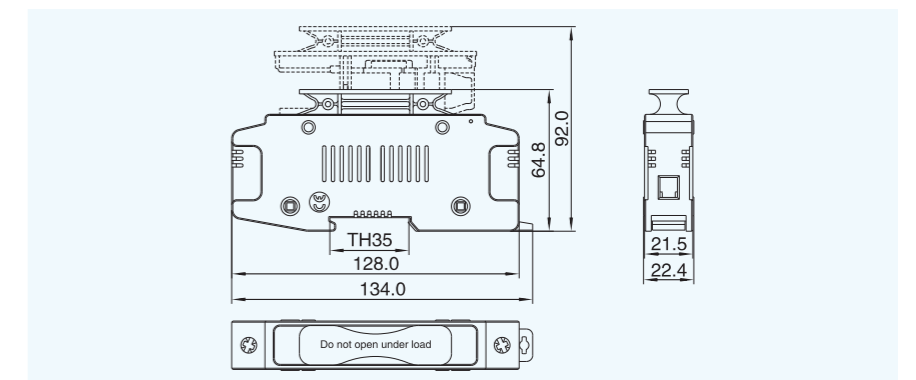
Photovoltaic Fuse



● Photovoltaic Fuse

- Rated Voltage: 1500VDC
- Class of Operation: gPV
- Standard: IEC 60269-6

● Outline Dimension



RT18PV-32

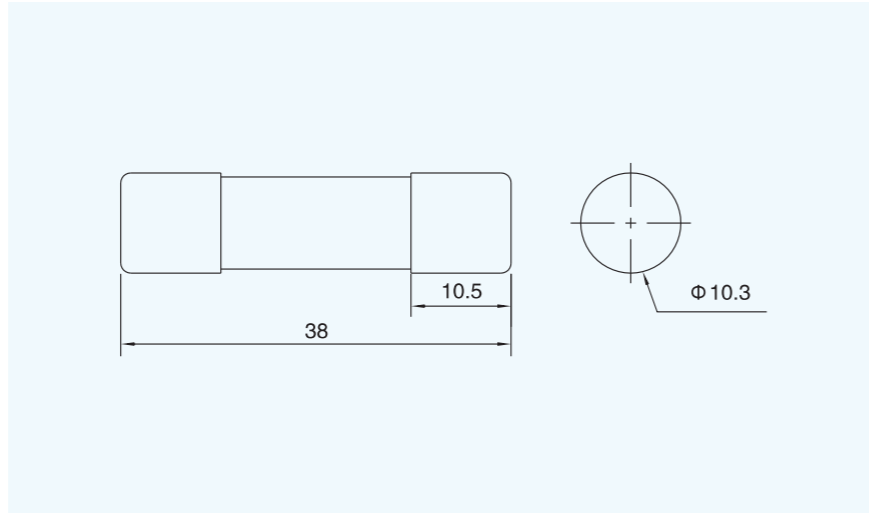
Photovoltaic Fuse



● Photovoltaic Fuse

- Rated Voltage: 1000VDC
- Fuse Size: 10 × 38mm;
- Class of Operation: gPV
- Standard: IEC 60269-6
- Breaking Capacity: 20kA
- Time Constant: 1-3ms

● Outline Dimension

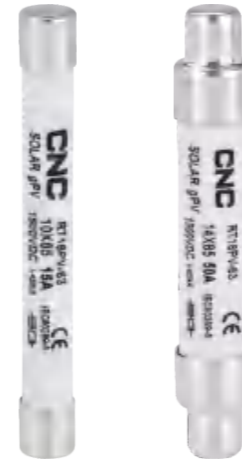


● Specifications

Model	Rated current (A)	I ² T(A ² s)	
		Pre-arcing	Total
RT18PV-32	1	0.15	0.4
	2	1.2	3.3
	3	3.9	11
	4	10	27
	5	18	48
	6	31	89
	8	3.1	31
	10	7.2	68
	12	16	136
	15	24	215
	16	28	255
	20	38	392
	25	71	508
	30	102	821
32	176	976	

RT18PV-63

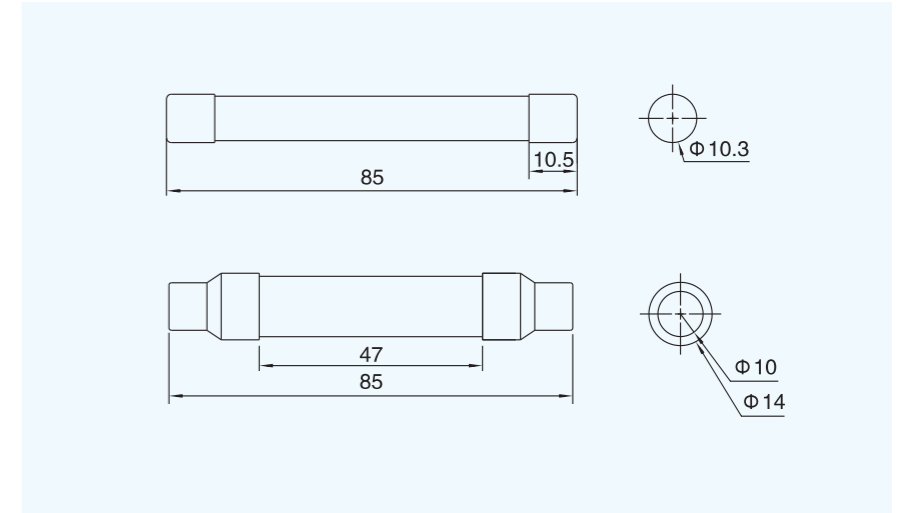
Photovoltaic Fuse



● Photovoltaic Fuse

- Rated Voltage: 1500VDC
- Fuse Size: 10 × 85mm 14 × 85mm
- Class of Operation: gPV
- Standard: IEC 60269-6
- Breaking Capacity: 20kA
- Time Constant: 1-3ms

● Outline Dimension



● Specifications

Model	Outline Dimension (mm)	Rated current (A)	I ² T(A ² s)	
			Pre-arcing	Total
RT18PV-63	10 × 85	2	4	8
		3	6	11
		4	8	14
		5	11	22
		6	15	30
		8	9	35
		10	10	98
		12	12	120
		15	14	170
		20	34	400
		25	65	550
		14 × 85	30	85
	32		90	720
	40		125	800
	50		155	920