

# XL7-63PV

## SOLAR DC MINIATURE CIRCUIT BREAKER (DC MCB)



### Application

XL7-63 PV DC breaker supplementary protectors are designed to provide overcurrent protection within appliances or electrical equipment, where a branch circuit protection is already provided or not required. Devices are designed for direct current (DC) control circuit applications.

### Specifications

XL7-63 PV Series Circuit Breaker		XL7-63 PV				
Frame Degree Rated Current (A)		63				
Pole		1P	2P	3P	4P	2P( CUSTOMIZED)
Rated Operating Voltage (V DC)		250	500	750	1000	600/800
Rated Insulation Voltage Ui (V DC)		2P 800V / 4P 1200V				
Rated Current In (A)		3,6,10,16,20,25,32,40,50,63A				
Rated Impact Voltage Uimp (kV)		4				
Ultimate Breaking Capacity Icu (kA)		6				
Run Breaking Capacity Ics (%Icu)		75%				
Curve Type		C				
Trip Type		Thermal-magnetic				
Mechanical	Actual average value	9700				
	Standard value	9700				
Electric	Actual average value	300				
	Standard value	300(accord to TUV standard)				

### Control and Indication

Shunt release (SHT)	Option
Undervoltage release (UNT)	
Auxiliary contact (AX)	
Alarm contact (AL)	

### Condition and Installation

Wiring capacity (mm <sup>2</sup> )		In ≤ 32A, 1-6, I ≥ 40A, 10~16			
Ambient temperature (°C)		-35~+70			
Altitude		≤2000			
Relative humidity		≤95%			
Pollution Level		3			
Installation Environment		No obvious shock and vibration			
Installation category		Class III			
Installation		DIN Standard rail			
Dimensions(W)x(H)x(Deep)	W	18	36	54	72
	H	80	80	80	80
	Deep	71	71	71	71
Weight (kg)		0.12	0.24	0.36	0.48

## Connection

Pole	1P	2P	3P	4P
Connection				

## Over current tripping characteristic

Test	Test Current	Initial State	Limited Time	Expected Result	Remarks
a	1.05I <sub>n</sub>	Cold state	t 1h	Non-tripping	
b	1.3I <sub>n</sub>	Right after test number a	t < 1h	Tripping	The current is rising within 5s
c	7I <sub>n</sub>	Cold state	t ≤ s	Non-tripping	
d	10I <sub>n</sub>	Cold state	t 0.1s	Tripping	

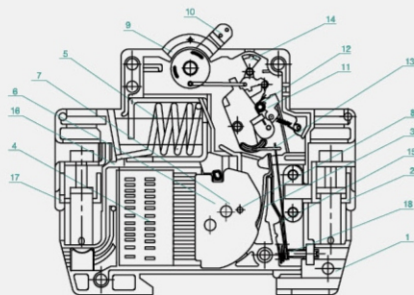
## Current correction values used at different ambient temperatures

Fixed current(A) Rated Current (A)	Temperature	-35	-30	-20	-10	0	10	20	30	40	50	60	70
3A		3.9	3.78	3.69	3.57	3.42	3.3	3.12	3	2.88	2.79	2.64	2.49
6A		7.8	7.56	7.38	7.14	6.84	6.6	6.24	6	5.76	5.64	5.28	4.98
10A		13.2	12.7	12.5	12	11.5	11.1	10.6	10	9.6	9.3	8.9	8.4
16A		21.12	20.48	20	19.2	18.4	17.76	16.96	16	15.36	14.88	14.24	13.44
20A		26.4	26.4	25	24	23	22.2	21.2	20	19.2	18.6	17.8	16.8
25A		33	32	31.25	30	28.75	27.75	26.5	25	24	23.25	22.25	21
32A		42.56	41.28	40	38.72	37.12	35.52	33.93	32	30.72	29.76	28.16	26.88
40A		53.2	51.2	50	48	46.4	44.8	42.4	40	38.4	37.2	35.6	33.6
50A		67	65.5	63	60.5	58	56	53	50	48	46.5	44	41.5
63A		83.79	81.9	80.01	76.86	73.71	70.56	66.78	63	60.48	58.9	55.44	52.29

## Current correction factor used at different altitudes

Rated Current (A)	Different altitude correction factors		
	≤ 2000m	2000~3000m	≥ 3000m
3,6,10,16,20,25,32,40,50,63A	1.0	0.9	0.8

## Details

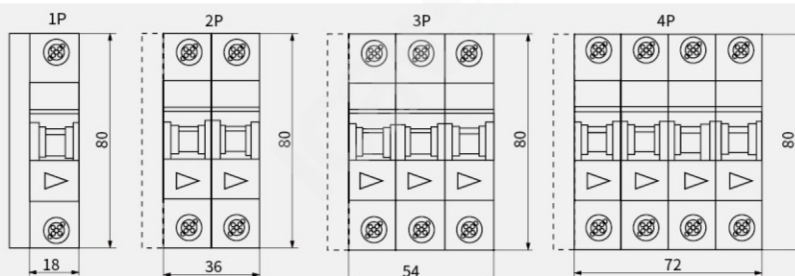


- 1. Shell
- 2. Wiring board
- 3. Static contact
- 4. Arc chamber
- 5. Copper coil
- 6. Insulation plate
- 7. Moving contact
- 8. Fixed contact
- 9. Spring
- 10. Handle
- 11. Lock catch knuckle
- 12. Tripping chain
- 13. Jump pin
- 14. Indicator
- 15. Bimetal
- 16. Soft linking
- 17. Wiring board
- 18. Adjusting screw

## Specifications

Rated current $I_n$ (A)	Copper wire nominal cross sectional area(mm <sup>2</sup> )
3,6	1
10	1.5
16,20	2.5
25	4
32	6
40,50	10
63	16

## Dimensions(mm)



## Characteristic Curve

