


# FPV Series ▶▶

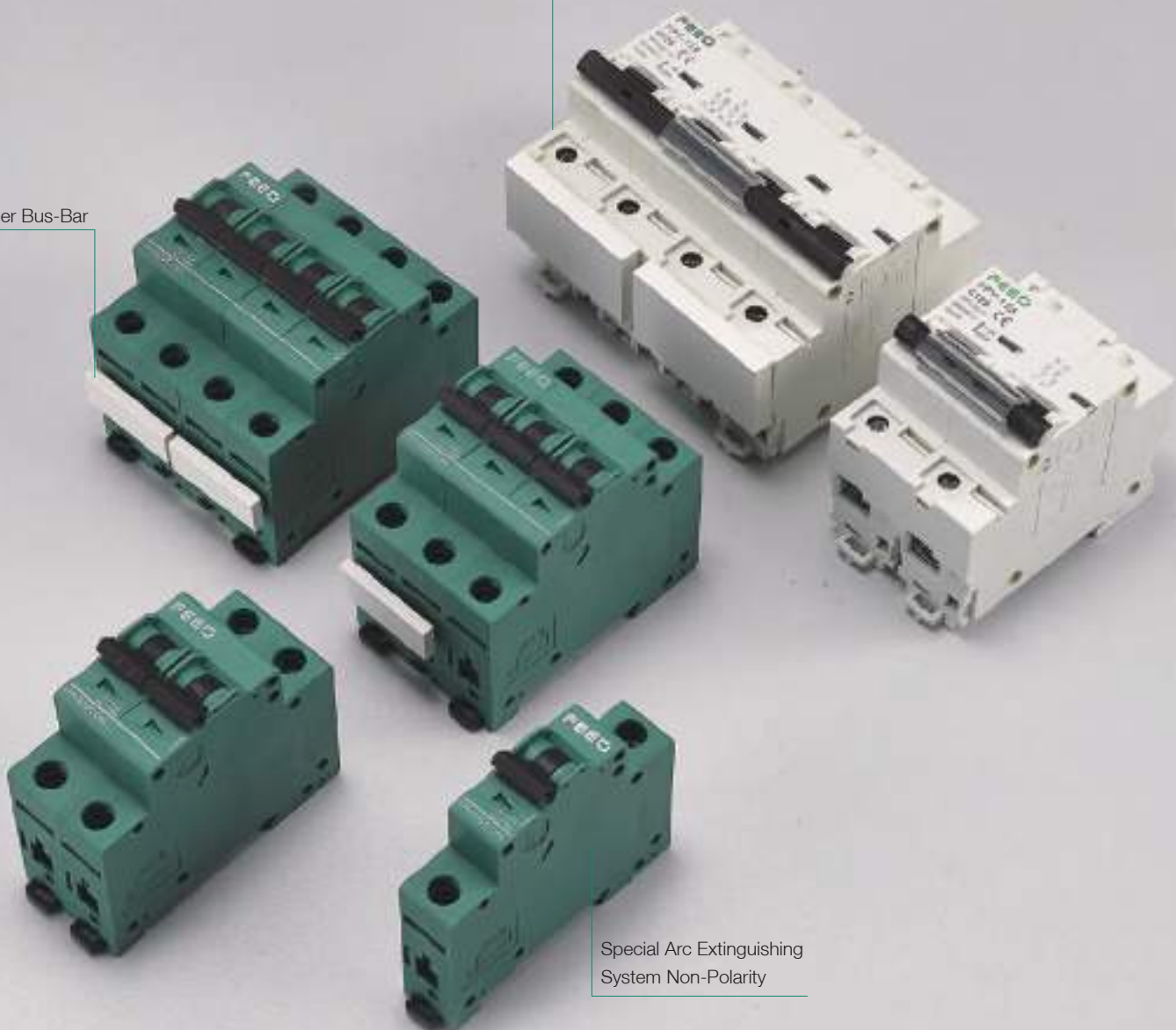
## Solar DC Mini Circuit Breaker (DC MCB)

CCC CE CB  RoHS

Copper Bus-Bar

Flammability Rating: V-0

Special Arc Extinguishing  
System Non-Polarity



## Solar DC Mini Circuit Breaker (DC MCB)

### ► Application

FPV-63 DC MCB 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

FPV-63 Series Circuit Breaker		FPV-63				
Frame Degree Rated Current (A)		63				
Pole		1P	2P	3P	4P	2P(CUSTOMIZED)
Rated Operating Voltage (V DC)		250	550	750	1000	800
Rated Insulation Voltage $U_i$ (V DC)		1200V				
Rated Current $I_n$ (A)		3,6,10,16,20,25,32,40,50,63A				
Rated Impact Voltage $U_{imp}$ (kV)		4				
Ultimate Breaking Capacity $I_{cu}$ (kA)		6				
Run Breaking Capacity $I_{cs}$ (% $I_{cu}$ )		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)				

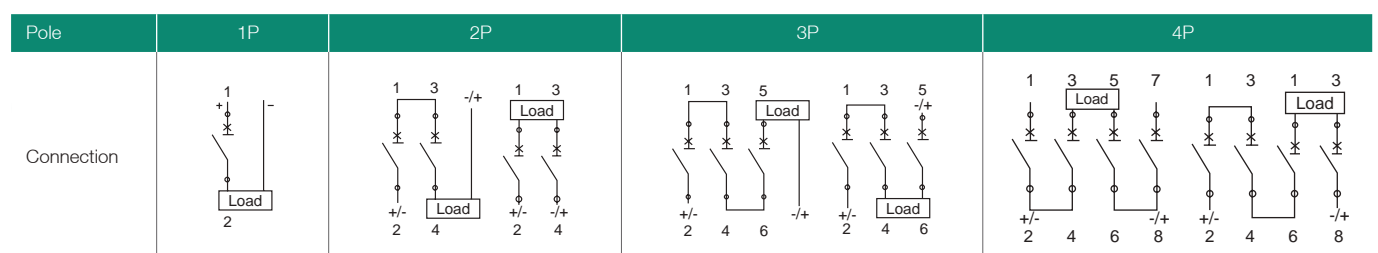
### ► Control and Indication

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

### ► Condition and Installation

Wiring capacity (mm <sup>2</sup> )	$I_n \leq 32A, 1-6, I_n \geq 40A, 10-16$				
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



## Solar DC Mini Circuit Breaker (DC MCB)

### ► 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	

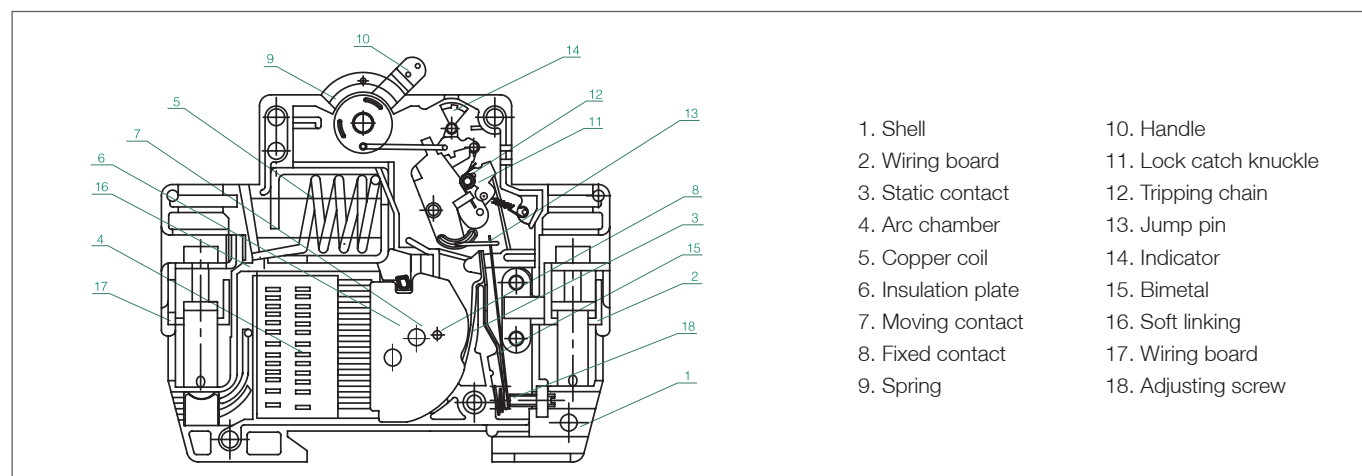
### ► Current correction values used at different ambient temperatures

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



# FPV-63

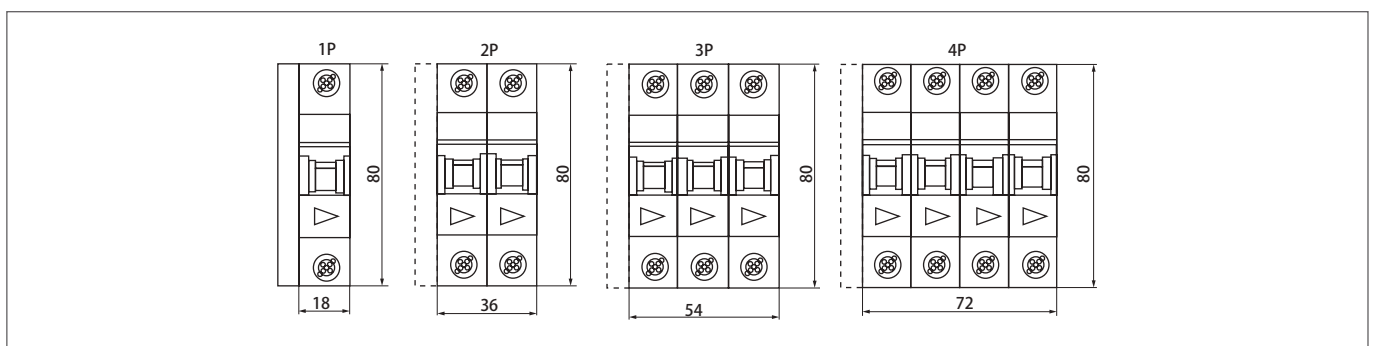
Solar DC Mini Circuit Breaker (DC MCB)



## ► Wire connection terminals

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

## ► Dimension



## ► Characteristic Curve

