

# PEMC Series

DC Molded Case  
Circuit Breaker



**PROJOY**  
electric

– Switch To Safety! –

**PROJOY**  
electric

– Switch To Safety! –



## HIGH CRAFTSMANSHIP AND HIGH STANDARDS

Focus on details to achieve high-quality products



Small  
Volume



Short circuit  
Protection



Overload  
Protection



Flame  
Retardant



High Breaking  
Capability



Arcing  
Short



Complete  
Accessories



Multiple  
Wiring

### Select Code

PEMC	-	400	/	2	3	X	Y	1500
↓		↓		↓	↓	↓	↓	↓
Projoy Electric Molded Case Circuit Breaker		Current 400A 630A 800A		Frame Current Poles 2P	3: Thermomagnetic 0: W/O Protection	Accessories code	Rated Current 225-800A	Rated Operating Voltage DC 1500V

### Technical data

Standard	IEC/EN 60947-2		
Type	PEMC		
Shell Frame Current (A)	400	630	800
Rated Current I <sub>n</sub> (A)	225-400	450-630	700-800
Number of Poles	2P		
Rated Operating Voltage U <sub>e</sub> (V)	1500		
Rated Insulation Voltage U <sub>i</sub> (V)	1500		
Rated Impulse Withstand Voltage U <sub>imp</sub> (kV)	12		
Rated Ultimate Short-circuit Breaking Capacity I <sub>cu</sub> (kA)	20		
Rated Service Short-circuit Breaking Capability I <sub>cs</sub> (kA)	20		
Arc Distance (mm)	≤50		
Operational Performance (times)	Electrical Life	700	700
	Mechanical Life	10,000	5,000
Isolation Function	■		
Accessories	Shunt release	■	
	Alarm Contact	■	
	Auxiliary Contact	■	
Service Temperature	-35°C ~+70°C		
Altitude	≤5500m		
Class of Use	A		
Protection Level	IP20		
Pollution Level	3		
Interphase Spacer	■		
	W	124	
	H	250	
	D	165	
Certification	CE		

## PEMC MCCB

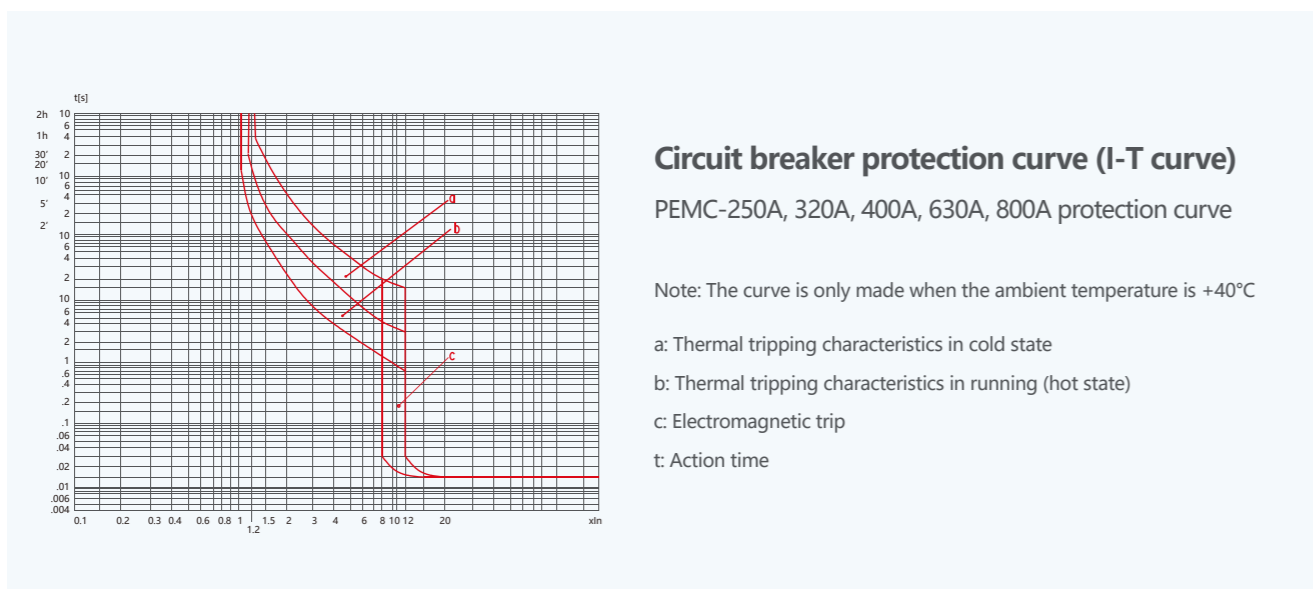
### Temperature derating factor table

Product frame	Temperature derating factor table (operating current I <sub>n</sub> )						
	40°C	45°C	50°C	55°C	60°C	65°C	70°C
PEMC-250	1.00	1.00	1.00	1.00	0.95	0.93	0.90
PEMC-320	1.00	1.00	1.00	0.94	0.92	0.90	0.88
PEMC-400	1.00	1.00	1.00	1.00	0.95	0.93	0.90
PEMC-630	1.00	1.00	1.00	0.96	0.94	0.92	0.90
PEMC-800	1.00	1.00	1.00	0.94	0.92	0.90	0.88

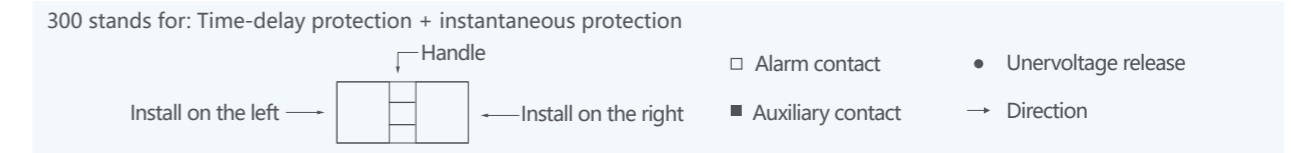
### Altitude derating factor table

Product frame	Altitude derating factor table (operating current I <sub>n</sub> )			
	2000m	3000m	4000m	5000m
PEMC-250	1.00	1.00	1.00	0.96
PEMC-320	1.00	0.97	0.94	0.90
PEMC-400	1.00	1.00	1.00	0.96
PEMC-630	1.00	1.00	0.96	0.94
PEMC-800	1.00	0.97	0.94	0.90

### Tripping characteristics



### Trip mode and accessory code



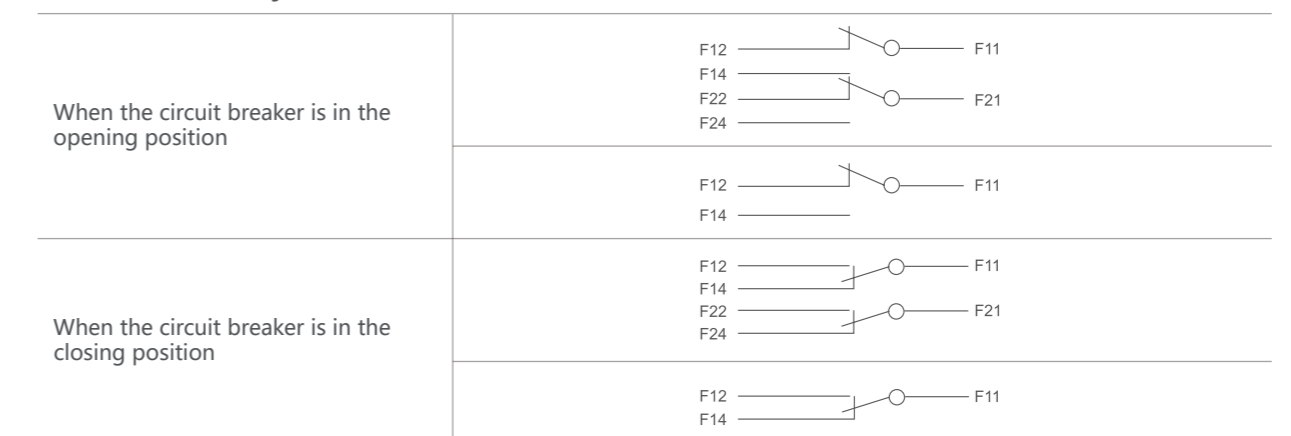
Accessory code	Accessories	PEMC-250/320	PEMC-400/630/800
		2, 3poles	2, 3poles
300	/	—	—
308	Alarm contact	← □ □ □	← □ □ □
310	Shunt release	← ● □ □	← ● □ □
320	Auxiliary contact(1NO1NC)	← ■ □ □	← ■ □ □
302	Auxiliary contact(2NO2NC)	—	← ■ □ □
340	Shunt release+Auxiliary contact(1NO1NC)	← ● ■ □ →	← ● ■ □
360	Auxiliary contact(2NO2NC)	← ■ □ □ →	—
318	Shunt release+Alarm contact	—	← ● □ □
328	Auxiliary contact(1NO1NC)+Alarm contact	← □ □ □	← □ □ □
348	Shunt release+Auxiliary contact(1NO1NC)+Alarm contact	—	← ● ■ □
368	Auxiliary contact(2NO2NC)+Alarm contact	← □ □ □ →	← □ □ □

### Auxiliary contact

#### Contact capacity of auxiliary contact

Applicable frame current	Conventional thermal current	Rated working current at 400V
I <sub>nm</sub> >400	6A	0:40A

#### Mode of auxiliary contact



## PEMC MCCB

### Alarm contact

#### Mode of Alarm contact

Alarm contact $U_e=220V$ , $I_{th}=3A$	
When the circuit breaker is in the opening position	
When the circuit breaker is in the closing position	

### Shunt release

Generally installed on phase A of the circuit breaker, when the rated control power supply voltage is between 70% and 110%, the shunt release should make the circuit breaker reliably trip under all operating conditions.

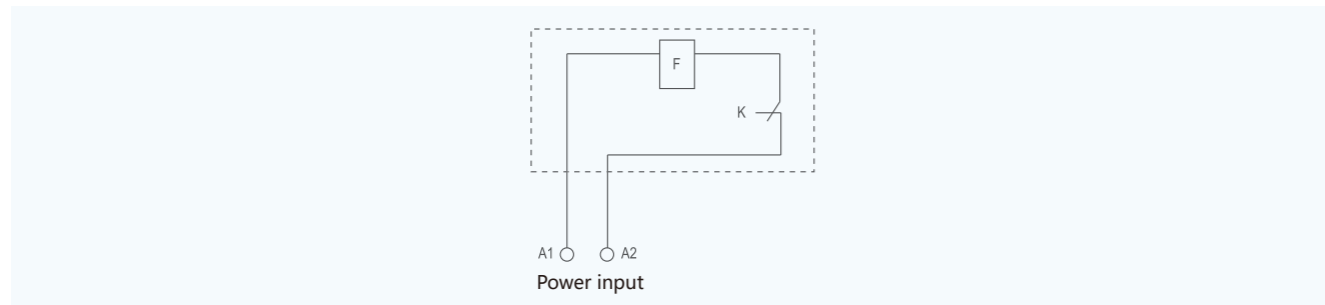
Control voltage: Conventional: AC 220V, 380V; DC 24V.

Note: When the operation voltage is DC24V, the following electrical diagram is recommended for circuit design.

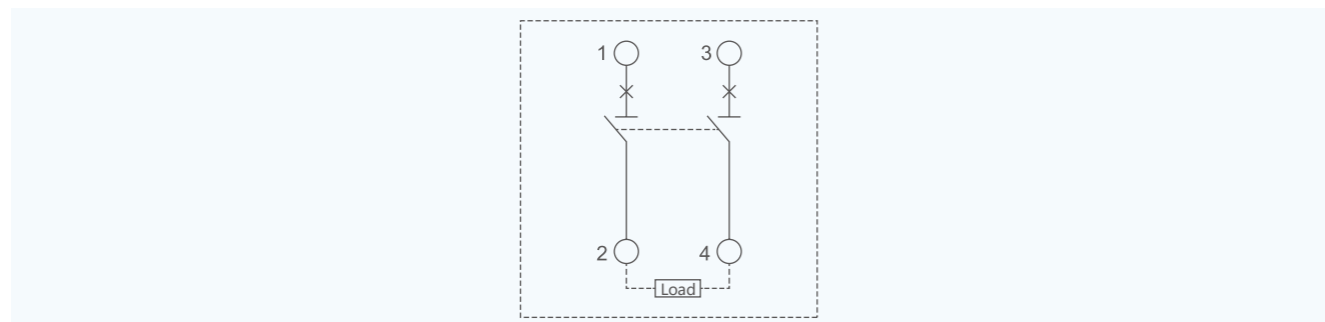
K: The microswitch in series with the coil inside the shunt release is a normally closed contact. When the circuit breaker is opened, the contact will automatically open, and when the circuit breaker is closed, the contact will close.

Voltage	Resistance value $\Omega$	Power W
AC 220V	250	194
AC 380V	300	481
DC 24V	3.8	152

#### Wiring diagrams of shunt release

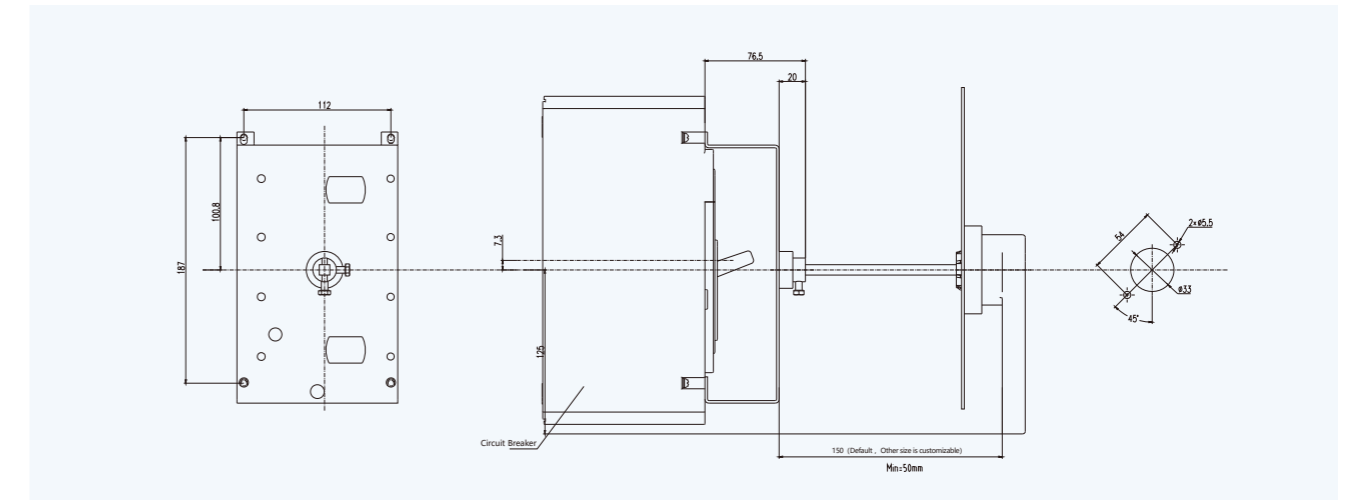


#### Wiring diagrams



### Installation method of external accessories

Diagram of PEMC-400/640/800 handle installation



### Dimensions

PEMC-DC1500V 2P (400/630/800Frame)

