

PEMC Series

DC Molded Case
Circuit Breaker



PROJOY
electric

– Switch To Safety! –

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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	-	250	/	2	3	X	Y	1000
↓		↓		↓	↓	↓	↓	↓
Projoy Electric Molded Case Circuit Breaker		Current 250A 320A 400A 630A 800A		Frame Current Poles 2P	3: Thermomagnetic 0: W/O Protection	Accessories code	Rated Current 63-800A	Rated Operating Voltage DC 1000V

Technical data

Standard	IEC/EN 60947-2				
Type	PEMC				
Shell Frame Current (A)	250	320	400	630	800
Rated Current In (A)	63-250	280-320	225-400	450-630	700-800
Number of Poles	2P				
Rated Operating Voltage Ue (V)	1000				
Rated Insulation Voltage Ui (V)	1250		1500		
Rated Impulse Withstand Voltage Uimp (kV)	8		12		
Rated Ultimate Short-circuit Breaking Capacity Icu (kA)	20		40		
Rated Service Short-Circuit Breaking Capability Ics (kA)	20		40		
Arc Distance (mm)	≤50				
Operational Performance (times)	Electrical Life	2,000	1,000	1,000	
	Mechanical Life	20,000	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	76		124	
	H	180		250	
	D	126		165	
Certification	CE				

■ Have □ Optional--none

PEMC MCCB

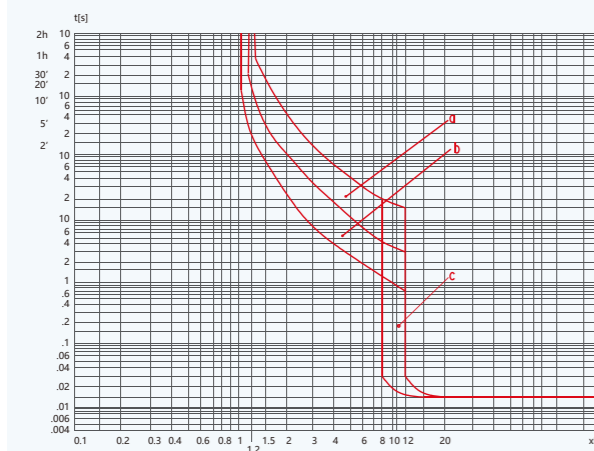
Temperature derating factor table

Product frame	Temperature derating factor table (operating current I _n)						
	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 _n)			
	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



Circuit breaker protection curve (I-T curve)

PEMC-250A, 320A, 400A, 630A, 800A protection curve

Note: The curve is only made when the ambient temperature is +40°C

- a: Thermal tripping characteristics in cold state
- b: Thermal tripping characteristics in running (hot state)
- c: Electromagnetic trip
- t: Action time

Trip mode and accessory code

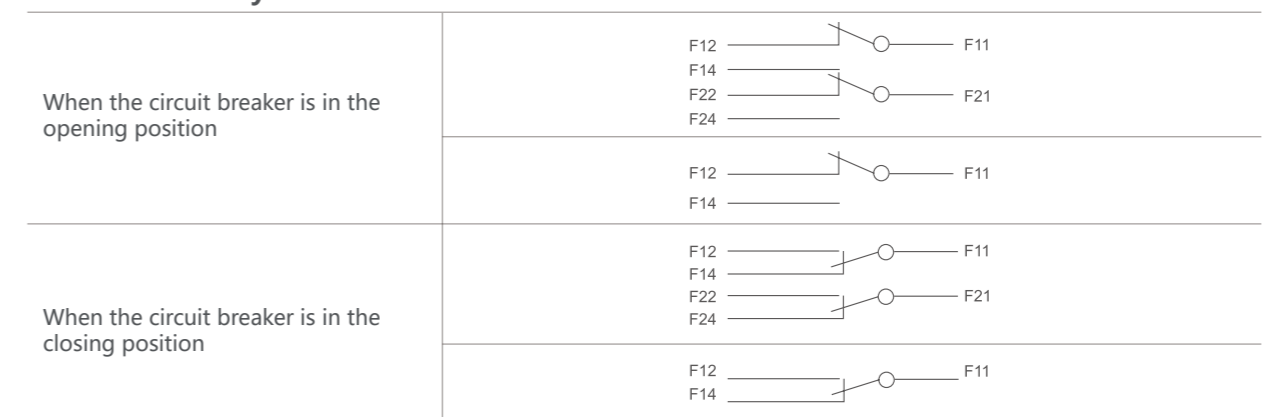
Accessory code	Accessories	PEMC-250/320	PEMC-400/630/800
		2, 3poles	2, 3poles
308	Alarm contact	—	← □ □
310	Shunt release	—	□ □ →
320	Auxiliary contact(1NO1NC)	← □ □	← □ □
	Auxiliary contact(2NO2NC)	—	← □ □
330	Undervoltage release	—	← ○ □ →
340	Shunt release+Auxiliary contact(1NO1NC)	← □ □ →	—
	Shunt release+Auxiliary contact(2NO2NC)	—	← □ □ →
350	Shunt release+Undervoltage release	—	← ○ □ →
360	Auxiliary contact(4NO4NC)	—	← □ □ □ □ →
370	Undervoltage release+Auxiliary contact(2NO2NC)	—	← ○ □ □ →
318	Shunt release+Alarm contact	—	← □ □ →
328	Auxiliary contact(1NO1NC)+Alarm contact	—	← □ □ →
338	Undervoltage release+Alarm contact	—	← ○ □ □ →
348	Shunt release+Auxiliary contact(2NO2NC)+Alarm contact	—	← □ □ →
368	Auxiliary contact(4NO4NC)+Alarm contact	—	← □ □ □ □ →
378	Auxiliary contact(2NO2NC)+Undervoltage release+Alarm contact	—	← ○ □ □ →

Auxiliary contact

Contact capacity of auxiliary contact

Applicable frame current	Conventional thermal current	Rated working current at 400V
I _{nm} <250	3A	0.30A
I _{nm} >400	6A	0.40A

Mode of auxiliary contact



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Alarm contact

Mode of Alarm contact

Alarm contact Ue=220V, Ith=3A	
When the circuit breaker is in the opening position	
When the circuit breaker is in the closing position	

Shunt release

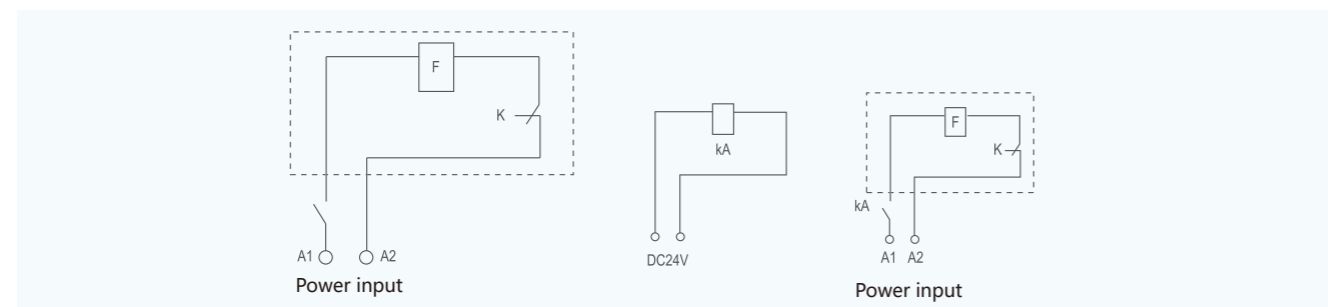
When the operating voltage is 70%~110%, the shunt release acts to make the circuit breaker trip reliably
Operation voltage: Regular model: AC 50Hz, 110V, 230V, 400V, DC 24V, 110V, 220V.

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

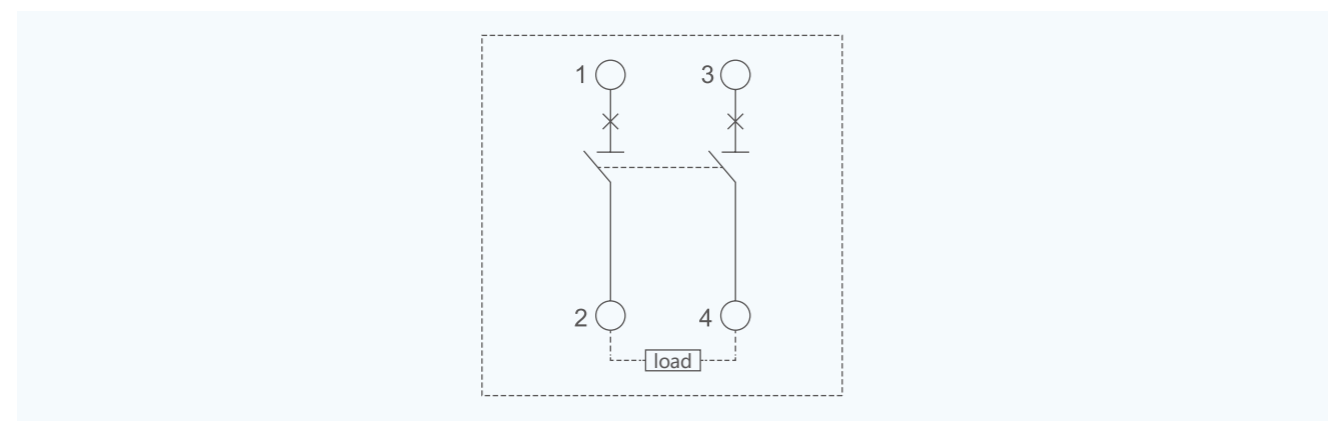
KA: DC24V intermediate relay, contact current capacity is 1A .

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.

Wiring diagrams of shunt release

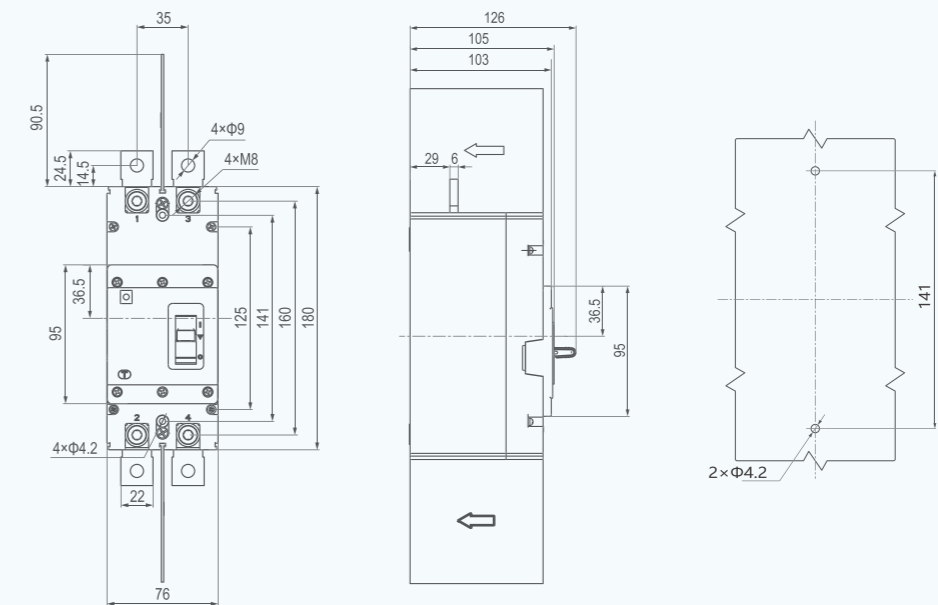


Wiring diagrams



Dimensions

PEMC-DC1000V 2P (250/320Frame)



PEMC-DC1000V 2P (400/630/800Frame)

