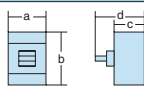


2

Ratings and Specifications

Moulded Case Circuit Breakers

1 Economical series

Frame size (A)			E160-SF				E160-SJ		E250-SCF		E250-SCJ				
Type			1	2	3	4	3	4	3	4	3	4			
Number of poles			1	2	3	4	3	4	3	4	3	4			
■ Ratings															
Rated current, A			16	63	15	75	16	63	25	160	125		100		
			20	80	20	100	20	80	40		150		125		
			25	100	30	125	25	100	63		175		160		
			32	125	40	160	32	125	80		200		200		
			40		50		40	160	100		225		250		
			50		60		50		125		250				
Calibrated at			50°C		40°C		50°C		50°C		50°C		50°C		
Rated insulation voltage [U_i] V AC			690		690		690		690		690		690		
Rated impulse withstand voltage [U_{imp}] kV			8		8		8		8		8		8		
Rated short time withstand current [I_{cw}] kA			—		—		—		—		—		—		
Utilization Category			A		A		A		A		A		A		
■ Rated breaking capacity, kA															
IEC 60947-2	AC	690V	—	—	—	—	—	—	—	—	—	—	—	—	
$I_{cu}/I_{cs}(sym)$		525V	—	6/3	6/3	6/3	6/3	6/3	6/3	6/3	6/3	6/3	6/3	6/3	
		480V	—	6/3	6/3	6/3	6/3	6/3	6/3	6/3	6/3	6/3	6/3	6/3	
		440V	—	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	
		415V	—	16/8	16/8	16/8	16/8	16/8	16/8	16/8	16/8	16/8	16/8	16/8	
		240V	25/13	25/13	25/13	25/13	25/13	25/13	25/13	25/13	25/13	25/13	25/13	25/13	
	DC	250V	10/5 (125V)	13/7	13/7	13/7	13/7	13/7	13/7	13/7	13/7	13/7	13/7	13/7	
■ External dimensions, mm															
			a	25	50	75	100	75	100	105	140	105	140		
			b	130	130	130		130		165		165			
			c	68	68	68		68		68		68			
			d	95	95	95		95		95		95			
Weight (● marked standard type) kg			0.3	0.6	0.8	1.0	0.8	1.0	1.5	1.9	1.5	1.9			
■ Connections and Mountings															
Front-connected	Terminal screws	(FC)	—	●	●	—	—	●	●	●	●	—	—	—	
	With extension bars	(FB)	—	○	○	—	—	○	○	○	○	—	—	—	
	Cable clamp	(FW)	● 25	—	—	—	—	○	○	○	○	—	—	—	
Rear-connected	Flat bar studs	(RC)	—	○	○	—	—	○	○	○	○	—	—	—	
	For switchboards	(PMB)	—	—	—	—	—	—	—	—	—	—	—	—	
Plug-in (PM)	For switchboards	(PMB)	—	—	—	—	—	—	—	—	—	—	—	—	
Draw-out type		(DR)	—	—	—	—	—	—	—	—	—	—	—	—	
DIN rail mount		(DA)	—	—	○ 4	○ 4	○ 4	○ 4	○ 4	—	—	—	—	—	
■ Overcurrent trip mechanism															
			OCR type												
Thermal magnetic	Adjustable thermal	ADJ	—	—	—	—	—	●	—	—	—	—	●	—	
	Fixed thermal	FIX	●	●	●	—	—	—	—	●	—	—	—	—	
Electronic		TPOP	—	—	—	—	—	—	—	—	—	—	—	—	
		TPOU	—	—	—	—	—	—	—	—	—	—	—	—	
		XOU	—	—	—	—	—	—	—	—	—	—	—	—	
		XOS	—	—	—	—	—	—	—	—	—	—	—	—	
■ Accessories (optional)															
			Symbol												
Internally mounted	Auxiliary switch	A X	—	●	●	—	—	●	●	●	●	—	—	—	
	Alarm switch	A L	—	●	●	—	—	●	●	●	●	—	—	—	
	Shunt trips	S H	—	●	●	—	—	●	●	●	●	—	—	—	
Externally mounted	Undervoltage trips	U V	—	●	●	—	—	●	●	●	●	—	—	—	
	Motor operator	M C	—	—	—	—	—	—	—	●	—	—	●	—	
Externally mounted	External operating handle	Breaker-mounted	H B	—	—	●	●	●	●	●	●	—	—	—	
		Door-mounted (variable depth)	H P	—	—	●	●	●	●	●	●	—	—	—	
	Toggle extension		H A	—	—	—	—	—	—	—	—	—	—	—	
		Mechanical interlock	Slide type	M S	—	—	●	●	●	●	●	●	—	—	—
		Link type	M L	—	—	—	—	—	—	—	●	—	—	—	
	Toggle holder		MW	—	—	—	—	—	—	—	●	—	—	—	
			H H	●	●	●	—	—	●	●	●	●	—	—	
	Terminal cover	Toggle lock	H L	●	●	●	—	—	●	●	●	●	—	—	
		For front-connected		C F	●	●	●	—	—	●	●	●	—	—	
			For rear-connected and plug-in	C R	—	●	●	—	—	●	●	●	—	—	
For cable clamps			C S	—	—	—	—	—	—	—	●	—	—		
Terminal block for lead	T F	—	●	●	—	—	●	●	●	●	—	—			
Door flange	D F	●	●	●	—	—	●	●	●	●	—	—			
CE marking			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Colour of cover			Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	
Trip button (Colour)			Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	
Suitability for isolation			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Reverse connection			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Endurance	Electrical	415V	10,000	10,000 ⑦	10,000 ⑦	10,000 ⑦	10,000 ⑦	10,000 ⑦	6,000	6,000	6,000	6,000	6,000	6,000	
	Mechanical		20,000	20,000	20,000	20,000	20,000	20,000	18,000	18,000	18,000	18,000	18,000	18,000	

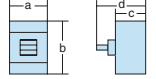
- Notes:**
- : Standard. This configuration used unless otherwise specified.
 - : Optional standard. Specify when ordering.
 - : "yes" or "available".
 - : "no" or "not available".
 - ④ : Please order the DIN rail adapter separately.
 - ⑦ : 14,000 for less than 125A
 - ⊗ : Factory-installed.

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Ratings and Specifications

Moulded Case Circuit Breakers

1 Economical series

Frame size (A)	E250-SF		E250-SJ		P400E		P630E					
Type												
Number of poles	3	4	3	4	3	4	3	4				
■ Ratings												
Rated current, A	125 150 175 200 225 250		100 125 160 200 250		250 400		630 ^③					
Calibrated at												
Rated insulation voltage [U_n] V AC	50°C		50°C		50°C		30°C					
Rated impulse withstand voltage [U_{imp}] kV	690		690		800		800					
Rated short time withstand current [I_{cw}] kA	8		8		8		8					
Utilization Category	A		A		A		A					
■ Rated breaking capacity, kA												
IEC 60947-2 AC 690V	—		—		—		—					
I_{cu}/I_{cs} (sym)	525V	7.5/6	7.5/6	15/15	15/15							
	480V	10/7.5	10/7.5	20/20	20/20							
	440V	15/12	15/12	22/22	22/22							
	415V	25/19	25/19	25/25	25/25							
	240V	35/27	35/27	35/35	35/35							
DC 250V	15/12	15/12	25/25	25/25								
■ External dimensions, mm												
	a	105	140	105	140	140	185	140	185			
	b	165		165		260		260				
	c	68		68		103		103				
	d	95		95		151		151				
Weight (● marked standard type) kg	1.5	1.9	1.5	1.9	5.5	7.3	5.9	7.8				
■ Connections and Mountings												
Front-connected	Terminal screws (FC)	●	●	●	●							
	With extension bars (FB)	○ ^⑤	○ ^⑤	○	○							
	Cable clamp (FW)	○	○	○	○							
Rear-connected	Flat bar studs (RC)	○	○	○	○							
Plug-in (PM)	For switchboards (PMB)	—	—	○ ^{②③}	—							
Draw-out type (DR)		—	—	▲	—							
DIN rail mount (DA)		—	—	—	—							
■ Overcurrent trip mechanism OCR type												
Thermal magnetic	Adjustable thermal ADJ	—	●	—	●			●				
	Fixed thermal FIX	●	—	—	—			—				
Electronic	TPOT	—	—	—	—			—				
	TPOP	—	—	—	—			—				
	XOU	—	—	—	—			—				
	XOS	—	—	—	—			—				
■ Accessories (optional) Symbol												
Internally mounted	Auxiliary switch A X	●	●	●	●			●				
	Alarm switch A L	●	●	●	●			●				
	Shunt trips S H	●	●	●	●			●				
Undervoltage trips	U V	●	●	●	●			●				
	Motor operator M C	●	●	●	●			●				
Externally mounted	External operating handle	●	●	●	●			●				
	Breaker-mounted H B	●	●	●	●			●				
	Door-mounted (variable depth) H P	●	●	●	●			●				
Toggle extension H A	—	—	—	—			—					
Mechanical interlock ^⑱	Slide type M S	●	●	●	●			●				
	Link type M L	●	●	●	●			●				
	Wire type M W	●	●	●	●			●				
Toggle holder H H	●	●	●	●			●					
Toggle lock H L	●	●	●	●			●					
Terminal cover	For front-connected C F	●	●	●	●			●				
	For rear-connected and plug-in C R	●	●	●	●			●				
	For cable clamps C S	●	●	●	●			●				
Terminal block for lead T F	●	●	●	●			●					
Door flange D F	●	●	●	●			●					
CE marking	Yes	Yes	Yes	Yes	Yes			Yes				
Colour of cover	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue			Grey Blue				
Trip button (Colour)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)			Yes (Red)				
Suitability for isolation	Yes	Yes	Yes	Yes	Yes			Yes				
Reverse connection	Yes	Yes	Yes	Yes	Yes			Yes				
Endurance	Electrical 415V	6,000	6,000	6,000	6,000			4,000				
	Mechanical	18,000	18,000	15,000	15,000			15,000				

Notes:

- : Standard. This configuration used unless otherwise specified.
- : Optional standard. Specify when ordering. ▲ : Semi-standard.
- : "yes" or "available".
- : "no" or "not available".
- ⑤ : For the extension bars, please place the order separately in parts.
- ⑱ : Mechanical interlocks cannot be applied to draw-out type (DR).
- ②③ : A safety trip function is provided.
- ③ : Max. rating 560A at 50°C