

# 2

## Ratings and Specifications

### Molded Case Circuit Breakers

#### 3 High-fault level series

Frame size (A)	400		400		630		630		800		800		1250			
Type	S400-PF		S400-PE		S630-RF		S630-RE		S800-RF		S800-RE		S1250-GE			
Number of poles	3	4	3	4	3	4	3	4	3	4	3	4	3	4		
<b>■ Ratings</b>																
Rated current, A	250		(Adjustable) (Adjustable)		500		(Adjustable)		700		(Adjustable)		(Adjustable)			
Calibrated at 45°C	300		125 175		600		250 500		800		350 600		500 1000			
	350		150 200		630		300 600				400 700		600 1200			
	400		175 225				350 630				450 800		700 1250			
			200 250				400				500		800			
			225 300													
			350													
			400													
Rated insulation voltage [U <sub>i</sub> ] V	690		690		690		690		690		690		690			
Rated impulse withstand voltage [U <sub>imp</sub> ] kV	8		8		8		8		8		8		8			
<b>■ Rated breaking capacity, kA</b>																
NK	AC 690V		20/15		20/15		25/20 ⑫		25/20 ⑫		25/20 ⑫		25/20 ⑫		45/34 ⑫	
i <sub>cu</sub> /i <sub>cs</sub> (sym)	450V		80/80		80/80		65/50 ⑫		65/50 ⑫		65/50 ⑫		65/50 ⑫		85/65 ⑫	
	240V		100/85		100/85		100/75 ⑫		100/75 ⑫		100/75 ⑫		100/75 ⑫		125/94 ⑫	
	① DC 250V		—		—		—		—		—		—		—	
IEC60947-2	AC 690V		20/15		20/15		25/20		25/20		25/20		25/20		45/34	
i <sub>cu</sub> /i <sub>cs</sub> (sym)	500V		30/30		30/30		45/34		45/34		45/34		45/34		65/50	
	440V		80/80		80/80		65/50		65/50		65/50		65/50		85/65	
	415V		85/85		85/85		70/50		70/50		70/50		70/50		85/65	
	380V		85/85		85/85		70/50		70/50		70/50		70/50		100/75	
	240V		100/85		100/85		100/75		100/75		100/75		100/75		125/94	
	① DC 250V		40/40		—		50/50		—		50/50		—		—	
	125V		40/40		—		50/50		—		50/50		—		—	
<b>■ Rated short time withstand current, kA</b>																
<b>■ External dimensions, mm</b>																
	a		140 185		140 185		210 280		210 280		210 280		210 280		210 280	
	b		260		260		273		273		273		273		370	
	c		103		103		103		103		103		103		120	
	d		145		145		145		145		145		145		171	
Weight (● marked standard type) kg	4.2 5.6		4.3 5.7		8.0 11.0		8.7 11.9		8.5 11.5		9.1 12.3		19.8 25.0			
<b>■ Connections and Mountings</b>																
Front-connected (FC)	Terminal screws		●		●		—		—		—		—			
	With extension bars		○ (BAR)		○ (BAR)		●		●		●		●			
Rear-connected (RC)	Bolt studs		—		—		—		—		—		—			
	Flat bar studs		○		○		○		○		○		○			
Plug-in (PM)	For switchboards		○ —		○ —		○ —		○ —		○ —		○ —			
	Standard (PMC)		○ —		○ —		○ —		○ —		○ —		○ —			
	High-performance (PMB)		○		○		○		○		○		○			
	For distribution boards (PMC)		—		—		—		—		—		—			
Flush-mounted (FP)	With flat bar studs		○		○		○		○		○		○			
Draw-out type (DR)	▲		▲		▲		▲		▲		▲		▲			
TemPlug70 (PG)	○ —		○ —		○ —		○ —		○ —		○ —		○ —			
TemPlug45B (PG4)	—		—		—		—		—		—		—			
DIN rail mount	—		—		—		—		—		—		—			
Clip-in chassis mount	—		—		—		—		—		—		—			
<b>■ Accessories (optional)</b>																
	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		H B ●		●		●		●		●		●			
	Door-mounted (variable depth)		H P ●		●		●		●		●		●			
	Toggle extension		H A —		—		●		●		●		● ⑭			
	Mechanical interlock <sup>⑨</sup> Slide type		M S ●		●		●		●		●		●			
	Toggle holder		H H ●		●		●		●		●		●			
	Toggle lock		H L ●		●		●		●		●		●			
	Terminal cover For front-connected		C F ●		●		●		●		●		●			
	For rear-connected and plug-in		C R ●		●		●		●		●		●			
	Interpole barrier		B A ● ③		● ③		● ③		● ③		● ③		● ③			
	Terminal block for lead		T F ●		●		●		●		●		●			
Door flange		D F ●		●		●		●		●		●				
<b>■ Standard specifications</b>																
Overcurrent trip mechanism	Thermal-magnetic		Electronic ⑯		Thermal-magnetic		Electronic ⑯		Thermal-magnetic		Electronic ⑯		Electronic ⑯			
Trip button (color)	Yes (Red)		Yes (Red)		Yes (Red)		Yes (Red)		Yes (Red)		Yes (Red)		Yes (Red)			
Handle position indication (ON: Red, OFF: Green)	Yes		Yes		Yes		Yes		Yes		Yes		Yes			
Suitability for isolation	Yes		Yes		Yes		Yes		Yes		Yes		Yes			
CE marking	Yes		Yes		Yes		Yes		Yes		Yes		Yes			
Page on which characteristics and outline dimensions are shown	7-20		7-30		7-34		7-36		7-40		7-42		7-46			

**Notes:**

- : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering. ▲ : Semi-standard. ● : "yes" or "available". — : "no" or "not available".
- ① : DC rating available on request. ③ : Line side interpole barriers are supplied as standard. (Front connection only) ⑨ : The mechanical interlock is not applicable to the draw-out type (DR).
- ⑫ : Being or will be applied. ⑯ : Optional pretrip alarm or ground fault trip function available on request. ⑭ : One is supplied with every five breakers. Please specify if more are required.

# 2

## Ratings and Specifications

### Molded Case Circuit Breakers

#### 4 Current limiting series

		100		125		225		400		630		800		1000		1200		
		H100-NF		H125-NF		H225-NF		H400-NE		H630-NE		H800-NE		TL-1000NE		TL-1200NE		
		3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	
<b>Frame size (A)</b>																		
<b>Type</b>																		
<b>Number of poles</b>																		
<b>■ Ratings</b>																		
Rated current, A		15	50	125		125		(Adjustable) 125	(Adjustable) 175	(Adjustable) 250	(Adjustable) 500	(Adjustable) 350	(Adjustable) 600	(Adjustable) 500	(Adjustable) 800	(Adjustable) 600	(Adjustable) 1000	
Calibrated at 45°C		20	60			150		175	150	200	300	600	400	700	600	900	700	1200
		30	75			200		225	250	350	630	450	800	700	1000	800		
		40	100			225		250	300	400		500						
								225	250									
								250	300									
								300	400									
								350	400									
								400										
<b>Rated insulation voltage (U<sub>i</sub>) V</b>		AC 690		690		690		690		690		690		690		690		
<b>Rated impulse withstand voltage (U<sub>imp</sub>) kV</b>		8		8		8		8		8		8		8		8		
<b>■ Rated breaking capacity, kA</b>																		
NK		AC 690V		20/15		20/15		20/15		35/35		25/20		25/20		—		
<i>I<sub>cu</sub>/I<sub>cs</sub>(sym)</i>		450V		120/80		120/80		120/80		120/80		125/94		125/94		125/- ②③		
		240V		150/150		150/150		150/150		150/150		150/150		—		—		
		250V		—		—		—		—		—		—		—		
① DC		250V		—		—		—		—		—		—		—		
IEC60947-2		AC 690V		20/15		20/15		20/15		35/35		25/20		25/20		45/34		
<i>I<sub>cu</sub>/I<sub>cs</sub>(sym)</i>		500V		45/45		45/45		45/45		45/45		45/34		45/34		75/57		
		440V		120/80		120/80		120/80		120/80		125/94		125/94		125/65		
		415V		125/85		125/85		125/85		125/85		125/94		125/94		125/65		
		380V		125/85		125/85		125/85		125/85		125/94		125/94		125/65		
		240V		150/150		150/150		150/150		150/150		150/150		150/113		150/113		
		250V		40/40		40/40		40/40		—		—		—		—		
① DC		125V		40/40		40/40		40/40		—		—		—		—		
<b>■ Rated short time withstand current, kA</b>																		
<b>■ External dimensions, mm</b>																		
		a	105	140	105	140	105	140	140	185	210	280	210	280	210	280	210	280
		b	165		165		165		260		273		273		370		370	
		c	103		103		103		140		140		140		140		140	
		d	127		127		127		182		182		182		191		191	
<b>Weight (● marked standard type) kg</b>		2.4	3.2	2.4	3.2	2.4	3.2	7.1	9.4	13.5	19.6	14.3	20.3	26.0	33.7	26.0	33.7	
<b>■ Connections and Mountings</b>																		
Front-connected (FC)		Terminal screws ●																
		With extension bars ○ (BAR)																
Rear-connected (RC)		Bolt studs ○																
		Flat bar studs ○																
Plug-in (PM)		For switchboards Standard (PMC) ○																
		High-performance (PMB) ○																
		For distribution boards (PMC) —																
Flush-mounted (FP)		With flat bar studs ○																
Draw-out type (DR)		—																
TemPlug70 (PG)		▲																
TemPlug45B (PG4)		—																
DIN rail mount		—																
Clip-in chassis mount		—																
<b>■ Accessories (optional)</b>		<b>Symbol</b>																
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	H B ●																
	Door-mounted (variable depth)	H P ●																
	Toggle extension	H A —																
	Mechanical interlock⑨ Slide type	M S ●																
	Toggle holder	H H ●																
	Toggle lock	H L ●																
	Terminal cover For front-connected	C F ●																
	For rear-connected and plug-in	C R ●																
	Interpole barrier	B A ● ③																
	Terminal block for lead	T F ●																
Door flange	D F ●																	
<b>■ Standard specifications</b>																		
Overcurrent trip mechanism		Thermal-magnetic		Thermal-magnetic		Thermal-magnetic		Electronic ⑩		Electronic ⑩		Electronic ⑩		Electronic ⑩		Electronic ⑩		
Trip button (color)		Yes (Red)		Yes (Red)		Yes (Red)		Yes (Red)		Yes (Red)		Yes (Red)		Yes (Brown)		Yes (Brown)		
Handle position indication (ON: Red, OFF: Green)		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
Suitability for isolation		Yes		Yes		Yes		Yes		Yes		Yes		Non		Non		
CE marking		Yes		Yes		Yes		Yes		Yes		Yes		Non		Non		
Page on which characteristics and outline dimensions are shown		7-22		7-24		7-26		7-32		7-38		7-44		7-74		7-74		

**Notes:**  
 ● : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering. ▲ : Semi-standard. ● : "yes" or "available". — : "no" or "not available".  
 ① : DC rating available on request. ③ : Line side interpole barriers are supplied as standard. (Front connection only) ⑥ : The UVT controller is installed externally, when provided with AC UVT.  
 ⑨ : The mechanical interlock is not applicable to the draw-out type (DR). ⑩ : Optional pretrip alarm or ground fault trip function available on request. ②③ : at 460V AC.  
 ④ : One is supplied with every five breakers. Please specify if more are required.