

2

Ratings and Specifications

Moulded Case Circuit Breakers

7 Switch-disconnectors

Frame size (A)	30	50	100	125	100	125	100	125
Type	PE30-NN	PE50-NN	PE125-NN		S125-SN		PS125-NN	
Number of poles	2 3	2 3	2 3	2 3	3 4	3 4	3 4	3 4
■ Ratings								
Rated current, A	30	50	100	125	100	125	100	125
Rated insulation voltage [U_i] V	690	690	690	690	690	690	800	800
Rated operational voltage V	AC 415	AC 500	AC 500	AC 500	AC 690	AC 690	AC 690	AC 690
	DC —	DC 250 (2)	DC 250 (2)	DC 250 (2)	DC 250	DC 250	DC 250	DC 250
Rated impulse withstand voltage [U_{imp}] kV	8	8	8	8	8	8	8	8
Rated short circuit making capacity [I_{cm}] kA peak	1.5	1.5	2.13	2.13	2.8	2.8	2.8	2.8
Rated short time withstand current [I_{cw}] kA	1 (1sec.)	1 (1sec.)	1.5 (0.3sec.)	1.5 (0.3sec.)	2 (0.3sec.)	2 (0.3sec.)	2 (1sec.)	2 (1sec.)
■ Performance								
Utilization category	AC	AC-23A	AC-23A	AC-23A	AC-23A	AC-23A	AC-23A	AC-23A
JIS C 8201-3 IEC 60947-3	DC	—	DC-22A	DC-22A	DC-22A	DC-22A	DC-22A	DC-22A
Upstream breaker (OCPD) (2)		PE30-NF	PE50-NF	PE125-NF	PE125-NF	S125-SF	S125-SF	PS125-NF
■ External dimensions, mm								
	a	50 75	50 75	50 75	50 75	75 100	75 100	90 120
	b	130	130	130	130	130	130	130
	c	68	68	68	68	68	68	68
	d	90	90	90	90	95	95	95.5
Weight (● marked standard type) kg	0.5 0.7	0.5 0.7	0.5 0.7	0.5 0.7	0.7 0.9	0.7 0.9	1.0 1.3	1.0 1.3
■ Connections and Mountings								
Front-connected (FC)	Terminal screws	● 45	● 45	● 45	● 45	● 45	● 45	● 45
	With extension bars	○ 53	○ 53	○ 53	○ 53	○ 53	○ 53	○ 53
Rear-connected (RC)	Flat bar studs	○	○	○	○	○	○	○
Plug-in (PM) For switchboards	High-performance (PMB)	—	—	—	—	—	○ 50	○ 50
	Standard (PMC)	—	○	—	○	—	—	—
	For distribution boards (PMC)	○ 85	○ 85	○ 85	○ 85	○ 85	○ 85	○ 85
	(PMD)	○ 87	○ 87	○ 87	○ 87	○ 87	○ 87	○ 87
Flush-mounted (FP)	With flat bar studs	○	○	○	○	○	○	○
Draw-out type (DR)		—	—	—	—	—	—	—
TemPlug70 (PG)		—	—	—	—	—	—	—
DIN rail mount		—	○ 11	—	○ 11	—	○ 11	—
■ 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	—	—	—	—	—	—
	External operating handle	● H B	●	●	●	●	●	●
	Door-mounted (variable depth)	● H P	●	●	●	●	●	●
	Toggle extension	● H A	—	—	—	—	—	—
Externally mounted	Mechanical interlock	● M S	●	●	●	●	●	●
	Slide type	—	—	—	—	—	—	—
	Rear-connected type	● M B	—	—	—	—	—	—
	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	●	●	●	●	●	●
	Terminal block for lead	● T F	●	●	●	●	●	●
	Door flange	● D F	●	●	●	●	●	●
CE marking		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Colour of cover		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)
Suitability for isolation		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Reverse connection		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Page of characteristics and outline dimensions		7-98	7-98	7-100	7-100	7-102	7-102	7-104

Notes:

- : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.
- : "yes" or "available". — : "no" or "not available".
- 11 : Please order the DIN rail adapter separately. See page 6-156. 2) : Applicable to only 2 poles breakers.
- 29 : Please use upstream breaker for overcurrent protection. Rated conditional short-circuit current [Icc] will be the same as Rated short-circuit breaking capacity of upstream breaker.
- 45 : A wire clamping terminal is provided.
- 53 : A safety trip function is provided. 53 : For the extension bars, please place the order separately in parts.
- 85 : If you do not require internal accessories, please specify PMC. 87 : If you require internal accessories, please specify PMD.

2

Ratings and Specifications

Moulded Case Circuit Breakers

7 Switch-disconnectors

Frame size (A)	225	250	225	250	400	600		
Type	S250-SN		PS250-NN		PS400-NN	PS630-NN		
Number of poles	3 4	3 4	3 4	3 4	3 4	3 4		
■ Ratings								
Rated current, A	225	250	225	250	400	600 ⁷⁹		
Rated insulation voltage [U_i] V	690	690	800	800	800	800		
Rated operational voltage V	AC 690	690	800	800	800	800		
	DC 250	250	250	250	250	250		
Rated impulse withstand voltage [U_{imp}] kV	8	8	8	8	8	8		
Rated short circuit making capacity [I_{cm}] kA peak	6	6	5	5	7.6	13		
Rated short time withstand current [I_{cw}] kA	3 (0.3sec.)	3 (0.3sec.)	3.6 (1sec.)	3.6 (1sec.)	5 (1sec.)	7.6 (1sec.)		
■ Performance								
Utilization category	AC	AC-23A	AC-23A	AC-23A	AC-23A	AC-23A (500A)		
JIS C 8201-3 IEC 60947-3	DC	DC-22A	DC-22A	DC-22A	DC-22A	DC-22A (600A)		
Upstream breaker (OCPD) ²⁹	S250-SF	S250-SF	PS250-PF	PS250-PF	PS400-NF	PS630-NF		
■ External dimensions, mm								
	a	105 140	105 140	105 140	105 140	140 185	140 185	
	b	165	165	165	165	260	260	
	c	68	68	68	68	103	103	
	d	95	95	95.5	95.5	151	151	
Weight (● marked standard type) kg	1.5 1.9	1.5 1.9	1.5 2.0	1.5 2.0	5.4 7.2	5.7 7.7		
■ Connections and Mountings								
Front-connected (FC)	Terminal screws	●	●	●	●	●	—	
	With extension bars	○ ⁵³	○ ⁵³	○ ⁵³	○ ⁵³	○	●	
Rear-connected (RC)	Flat bar studs	○	○	○	○	○	○	
Plug-in (PM)	For switchboards	—	—	○ ⁵⁰	○ ⁵⁰	○ ⁵⁰	○ ⁵⁰	
	High-performance (PMB)	—	—	○	○	○	○	
	Standard (PMC)	○	○	○	○	○	○	
	For distribution boards (PMC)	—	—	—	—	—	—	
	(PMD)	—	—	—	—	—	—	
Flush-mounted (FP)	With flat bar studs	○	○	○	○	○	○	
Draw-out type (DR)		—	—	▲	▲	▲	▲	
TemPlug70 (PG)		○ —	○ —	○ —	○ —	○ —	○ —	
DIN rail mount		—	—	—	—	—	—	
■ 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	Slide type	M S	●	●	●	●	●
		Rear-connected type	M B	—	—	—	—	—
		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	●	●	●	●	●
	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	
Page of characteristics and outline dimensions		7-106	7-106	7-108	7-108	7-110	7-112	

- Notes:**
- : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.
 - ▲ : Semi-standard. ● : "yes" or "available". — : "no" or "not available".
 - ⑨ : Mechanical interlocks cannot be applied to draw-out type (DR).
 - 29 : Please use upstream breaker for overcurrent protection. Rated conditional short-circuit current [I_{cc}] will be the same as Rated short-circuit breaking capacity of upstream breaker.
 - 50 : A safety trip function is provided. 53 : For the extension bars, please place the order separately in parts.
 - 79 : Plug-in type (PM), draw-out type (DR), and TemPlug70 (PG) are only rated current 500A.

2

Ratings and Specifications

Moulded Case Circuit Breakers

7 Switch-disconnectors

Frame size (A)	600	630	800	1000	1250	1600						
Type	S630-GN		S800-NN		S1000-NN		S1250-NN		S1600-NN			
Number of poles	3 4	3 4	3 4	3 4	3 4	3 4						
■ Ratings												
Rated current, A	600		630		800		1000		1250		1600	
Rated insulation voltage [U_i] V	690		690		690		690		690		690	
Rated operational voltage V	AC 690		AC 690		AC 690		AC 690		AC 690		AC 690	
	DC 250		DC 250		DC 250		DC 250		DC 250		DC 250	
Rated impulse withstand voltage [U_{imp}] kV	8		8		8		8		8		8	
Rated short circuit making capacity [I_{cm}] kA peak	17		17		17		17		32		45	
Rated short time withstand current [I_{cw}] kA	10 (0.3sec.)		10 (0.3sec.)		10 (0.3sec.)		10 (0.3sec.)		15 (0.3sec.)		20 (0.3sec.)	
■ Performance												
Utilization category	AC		AC-23A		AC-23A		AC-23A		AC-23A		AC-23A	
JIS C 8201-3 IEC 60947-3	DC		DC-22A		DC-22A		DC-22A		DC-22A		DC-22A	
Upstream breaker (OCPD) ²⁹	S630-NF		S630-NF		S800-NF		S1000-CE		S1250-NE		S1600-NE	
■ External dimensions, mm												
	a	210 280	210 280	210 280	210 280	210 280	210 280	210 280	210 280	210 280		
	b	273	273	273	273	273	273	273	370	370		
	c	103	103	103	103	103	103	103	120	140		
	d	145	145	145	145	145	145	145	171	191		
Weight (● marked standard type) kg		8.0 11.0	8.0 11.0	8.5 11.5	10.4 14.0	18.2 23.4	24.9 32.9					
■ Connections and Mountings												
Front-connected (FC)	Terminal screws	—	—	—	—	—	—	—	—	—	—	—
	With extension bars	●	●	●	●	●	●	●	●	○	—	—
Rear-connected (RC)	Flat bar studs	○	○	○	○	○	○	○	○	●	—	—
Plug-in (PM) For switchboards	High-performance (PMB)	○ ⁵¹⁾	○ ⁵¹⁾	○ ⁵¹⁾	—	—	—	—	—	—	—	—
	Standard (PMC)	○ —	○ —	○ —	—	—	—	—	—	—	—	—
	For distribution boards (PMC)	—	—	—	—	—	—	—	—	—	—	—
	(PMD)	—	—	—	—	—	—	—	—	—	—	—
Flush-mounted (FP)	With flat bar studs	○	○	○	○	○	○	○	○	○	—	—
Draw-out type (DR)		▲	▲	▲	—	—	—	—	▲	○	—	—
TemPlug70 (PG)		○ —	○ —	—	—	—	—	—	—	—	—	—
DIN rail mount		—	—	—	—	—	—	—	—	—	—	—
■ Accessories (optional)												
Internally mounted	Auxiliary switch	A X	●	●	●	●	●	●	●	●	—	—
	Alarm switch	A L	●	●	●	●	●	●	●	●	—	—
	Shunt trips	S H	●	●	●	●	●	●	●	●	—	—
	Undervoltage trips	U V	●	●	●	●	●	●	●	●	—	—
	Motor operator	M C	●	●	●	●	●	●	●	●	—	—
	External operating handle	Breaker-mounted H B	●	●	●	●	●	●	●	●	—	—
		Door-mounted (variable depth) H P	●	●	●	●	●	●	●	●	—	—
	Toggle extension	H A	●	●	●	●	●	●	● ²⁴⁾	● ²⁴⁾	—	—
Externally mounted	Mechanical interlock	Slide type M S	●	●	●	●	●	●	●	●	—	—
		Rear-connected type M B	—	—	—	—	—	—	—	●	—	—
		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	●	●	●	●	●	●	—	—	—	—
	Terminal block for lead	T F	●	●	●	●	●	●	●	●	—	—
	Door flange	D F	●	●	●	●	●	●	●	●	—	—
CE marking		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	—	—
Trip button (Colour)		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	—	—
Reverse connection		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	—
Page of characteristics and outline dimensions		7-114	7-114	7-114	7-114	7-116	7-118					

Notes:

- : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.
- ▲ : Semi-standard. ● : "yes" or "available". — : "no" or "not available".
- ⑨ : Mechanical interlocks cannot be applied to draw-out type (DR).
- 24) : One is supplied with every five breakers. Please specify if more are required.
- 29) : Please use upstream breaker for overcurrent protection. Rated conditional short-circuit current [I_{cc}] will be the same as Rated short-circuit breaking capacity of upstream breaker.
- 51) : A safety lock function is provided.