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Ratings and Specifications

Moulded Case Circuit Breakers

4 Current limiting standard series

Frame size (A)	600		630		630		800		1000		1200		
Type	PH630-CF		PH630-CE		H630-NE		H800-NE		TL-1000NE		TL-1200NE		
Number of poles	3	4	3	4	3	4	3	4	3	4	3	4	
■ Ratings													
Rated current, A	500		Adjustable		Adjustable		Adjustable		Adjustable		Adjustable		
Calibrated at 40°C	600		$I_n=630$		$I_{CT}=630$		$I_{CT}=800$		$I_{CT}=1000$		$I_{CT}=1250$		
45°C	78		250		250		250		350 600		500 800		
	300		300		300		400 700		600 900		700 1200		
	350		350		350		450 800		700 1000		800		
	400		400		400		500						
	500		500		500								
	600		600		600								
	630		630		630								
Rated insulation voltage [U_i] V	800		800		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	—		—		10 (0.3sec.)		10 (0.3sec.)		15 (0.3sec.)		15 (0.3sec.)		
Utilization Category	A		A		B		B		B		B		
■ Rated breaking capacity, kA													
JIS C 8201-2-1 Ann.1 Ann.2 59 AC	690V	12/12	12/12	12/12	25/20	25/20	25/20	25/20	45/34	45/34	45/34	45/34	
IEC 60947-2	500V	65/65	65/65	65/65	45/34	45/34	45/34	45/34	75/57	75/57	75/57	75/57	
I_{cw}/I_{cs} (sym)	440V	100/100	100/100	100/100	125/94	125/94	125/94	125/94	125/65	125/65	125/65	125/65	
	415V	110/110	110/110	110/110	125/94	125/94	125/94	125/94	125/65	125/65	125/65	125/65	
	380V	110/110	110/110	110/110	125/94	125/94	125/94	125/94	125/65	125/65	125/65	125/65	
	240V	125/125	125/125	125/125	150/150	150/150	150/150	150/150	150/113	150/113	150/113	150/113	
	① DC 250V	50/50 17	—	—	—	—	—	—	—	—	—	—	
	125V	50/50 17	—	—	—	—	—	—	—	—	—	—	
NK AC	690V	12/12 83	—	—	25/20	25/20	25/20	25/20	—	—	—	—	
I_{cw}/I_{cs} (sym)	450V	100/100 83	—	—	125/94	125/94	125/94	125/94	125/— 23	125/— 23	125/— 23	125/— 23	
	240V	125/125 83	—	—	150/150	150/150	150/150	150/150	—	—	—	—	
	① DC 250V	—	—	—	—	—	—	—	—	—	—	—	
■ External dimensions, mm													
	a	140	185	140	185	210	280	210	280	210	280	210	280
	b	260	260	260	260	273	273	273	273	370	370	370	370
	c	103	103	103	103	140	140	140	140	140	140	140	140
	d	151	151	151	151	182	182	182	182	191	191	191	191
Weight (● marked standard type) kg		5.9	7.8	6.0	8.0	13.5	19.6	14.3	20.3	26.0	33.7	26.0	33.7
■ Connections and Mountings													
Front-connected (FC)	Terminal screws	—	—	—	—	—	—	—	—	—	—	—	—
	With extension bars	●	●	●	●	●	●	●	●	●	●	●	●
Rear-connected (RC)	Flat bar studs	○	○	○	○	○	○	○	○	○	○	○	○
Plug-in (PM)	For switchboards	○ 50	—	—	—	○ 51	—	○ 51	—	○	—	○	—
	High-performance (PMB)	—	—	—	—	—	—	—	—	—	—	—	—
	Standard (PMC)	○	—	○	—	○	—	○	—	○	—	○	—
	For distribution boards (PMC)	—	—	—	—	—	—	—	—	—	—	—	—
	(PMD)	—	—	—	—	—	—	—	—	—	—	—	—
Flush-mounted (FP)	With flat bar studs	○	○	○	○	○	○	○	○	○	○	○	○
Draw-out type (DR)		▲	—	—	—	—	—	—	—	▲	—	▲	—
TemPlug70 (PG)		▲ 81	—	—	—	—	—	—	—	—	—	—	—
DIN rail mount		—	—	—	—	—	—	—	—	—	—	—	—
■ Accessories (optional)													
	Symbol	●	●	●	●	●	●	●	●	●	●	●	●
Internally mounted	Auxiliary switch	A X	●	●	●	●	●	●	●	●	●	●	●
	Alarm switch	A L	●	●	●	●	●	●	●	●	●	●	●
	Shunt trips	S H	●	●	●	●	●	●	●	●	●	●	●
	Undervoltage trips	U V	●	●	●	●	●	●	● 6	● 6	● 6	● 6	● 6
	Motor operator	M C	●	●	●	●	●	●	●	●	●	●	●
Externally mounted	External operating handle	Breaker-mounted	H B	●	●	●	●	●	●	●	●	●	●
	Door-mounted (variable depth)	H P	●	●	●	●	●	●	●	●	●	●	●
	Toggle extension	H A	●	●	●	●	●	●	● 24	● 24	● 24	● 24	● 24
	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	Non	Non	Non	Non	Non
Overcurrent trip mechanism		Thermal-magnetic (adjustable)	Electronic	Electronic 16	Electronic 16	Electronic 16	Electronic 16	Electronic 16	Electronic 16	Electronic 16	Electronic 16	Electronic 16	Electronic 16
Colour of cover		Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Grey Blue	Black	Black	Black	Black	Black
Trip button (Colour)		Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)	Yes (Brown)	Yes (Brown)	Yes (Brown)	Yes (Brown)	Yes (Brown)
Suitability for isolation		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Non	Non	Non	Non	Non
Reverse connection		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
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Notes:
 ● : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.
 ▲ : Semi-standard. ● : "yes" or "available". — : "no" or "not available". ① : DC is a special specification. When ordering, please specify DC.
 ⑥ : With AC UVT, the UVT controller is externally mounted. ⑨ : Mechanical interlocks cannot be applied to draw-out type (DR).
 16 : Optional preferential alarm or ground fault trip function available on request. 17 : See page 4-7 for the instantaneous trip value when using with DC.
 23 : This is the value for 460V AC. 24 : One is supplied with every five breakers. Please specify if more are required. 50 : A safety trip function is provided.
 51 : A safety lock function is provided. 59 : TL-1000NE and TL-1200NE are JIS C 8201-2-1 Ann.2 compliant. 78 : Plug-in type (PM), draw-out type (DR), and TemPlug70 (PG) are only 500A.
 81 : They cannot be applied to circuits with a short circuit breaking current exceeding 85kA. 83 : This is the planned application value.

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Ratings and Specifications

Moulded Case Circuit Breakers

5 Current limiting High-fault level series

Frame size (A)	100	125	225	250	400	630	800	
Type	L100-NF	L125-NF	L225-NF	L250-NF	L400-NE	L630-NE	L800-NE	
Number of poles	3 4	3 4	3 4	3 4	3 4	3 4	3 4	
Ratings								
Rated current, A	15 60	125	125	250	Adjustable	Adjustable	Adjustable	
Calibrated at 40°C	20 75	150	150	250	$I_{CT=250}$ 125 175	$I_{CT=630}$ 250 350	$I_{CT=800}$ 350 600	
45°C	30 100	175	200	225	200 250 225	300 400 500	400 700 500	
	40	225	200	225	350 600 400	630		
Rated insulation voltage [U_i] V	690	690	690	690	690	690	690	
Rated impulse withstand voltage [U_{imp}] kV	8	8	8	8	8	8	8	
Rated short time withstand current [I_{cw}] kA	—	—	—	—	5 (0.3sec.)	10 (0.3sec.)	10 (0.3sec.)	
Utilization Category	A	A	A	A	B	B	B	
Rated breaking capacity, kA								
JIS C 8201-2-1 Ann.1 Ann.2	AC 690V 25/20	25/20	25/20	25/20	50/50	25/20	25/20	
IEC 60947-2	500V 65/65	65/65	65/65	65/65	65/65	45/34	45/34	
I_{cu}/I_{cs} (sym)	440V 180/135	180/135	180/135	180/135	180/135	180/135	180/135	
	415V 200/150	200/150	200/150	200/150	200/150	200/150	200/150	
	380V 200/150	200/150	200/150	200/150	200/150	200/150	200/150	
	240V 200/150	200/150	200/150	200/150	200/150	200/150	200/150	
① DC	250V 40/40	40/40	40/40	40/40	—	—	—	
	125V 40/40	40/40	40/40	40/40	—	—	—	
NK	AC 690V 25/20	25/20	25/20	—	50/50	25/20	25/20	
I_{cu}/I_{cs} (sym)	450V 180/135	180/135	180/135	—	180/135	180/135	180/135	
	240V 200/150 ③	200/150 ③	200/150 ③	—	200/150 ③	200/150	200/150	
① DC	250V —	—	—	—	—	—	—	
External dimensions, mm								
	a 105 140	105 140	105 140	105 140	140 185	210 280	210 280	
	b 165	165	165	165	260	273	273	
	c 103	103	103	103	140	140	140	
	d 127	127	127	127	182	182	182	
Weight (● marked standard type) kg	2.4 3.2	2.4 3.2	2.4 3.2	2.4 3.2	7.1 9.4	13.5 19.6	14.3 20.3	
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 High-performance (PMB) ○ 51	○ 51	○ 51	—	○ 51	○ 51	○ 51	
	Standard (PMC) ○ —	○ —	○ —	—	○ —	○ —	○ —	
	For distribution boards (PMC) —	—	—	—	—	—	—	
	(PMD) —	—	—	—	—	—	—	
Flush-mounted (FP)	With flat bar studs ○	○	○	○	○	○	○	
Draw-out type (DR)	—	—	—	—	—	—	—	
TempPlug70 (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 ●	●	●	●	●	●	●	
Externally mounted	Motor operator M C ●	●	●	●	●	●	●	
	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 MW ●	●	●	●	●	●	●	
	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	
Overcurrent trip mechanism	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Electronic ⑩	Electronic ⑩	Electronic ⑩	
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 ⑦	Yes ⑦	Yes ⑦	Yes ⑦	Yes	Yes	Yes	
Page of characteristics and outline dimensions	7-24	7-26	7-36	7-38	7-52	7-66	7-72	

Notes:

- : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering.
- ▲ : Semi-standard. ● : "yes" or "available". — : "no" or "not available".
- ① : DC is a special specification. When ordering, please specify DC.
- ⑩ : Optional preferential alarm or ground fault trip function available on request.
- ③ : Also applicable to 415V AC. ⑤① : A safety lock function is provided. ⑤③ : For the extension bars, please place the order separately in parts.
- ⑦ : There are some limitations. See page 5-23 for details.