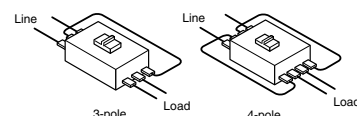


1 Detailed Specifications

Notes:

- *1 The trip action characteristics differ between AC and DC for products that are compatible with both AC and DC.
- *2 Use two poles for three- and four-pole products. In this case, do not use the neutral pole of the four-pole products. If wired as shown on the right, the two poles can be used for up to 500 and 600VDC, respectively.
- *3 The cassette type design makes it easy for customer to install. Available for installation on side below 250A frame (excluding UVLT).
- *4 Not isolation compatible, excluding 400 to 800A frame.
- *5 Use two poles for three- and four-pole products. In this case, do not use the neutral pole of the four-pole products. Not available for use with connection as shown on the right.



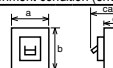
NF-L / NF-H / NF-R (High-performance class)

	125	160	160	225	250	250	250	250
	NF125-HEV	NF160-LGV	NF160-HGV	NF250-HV		NF250-LGV	NF250-HGV	NF250-RGV
								
	16-32 32-63 63-125	125-160	125-160	125 150 160 175 200 225	250	125-160 140-200 175-250	125-160 140-200 175-250	125-160 160-200 200-250
	3 4	2 3 4	2 3 4	2 3 4	2 3 4	2 3 4	2 3 4	2 3
	690	690	690	690	690	690	690	690
	10/8	8/8	10/8	10/8	10/8	8/8	10/8	-
	50/38	36/36	50/38	50/38	50/38	36/36	50/38	-
	65/65	50/50	65/65	65/65	65/65	50/50	65/65	125/125
	70/70	50/50	70/70	70/70	70/70	50/50	70/70	150/150
	75/75	50/50	75/75	75/75	75/75	50/50	75/75	150/150
	75/75	50/50	75/75	75/75	75/75	50/50	75/75	150/150
	100/100	90/90	100/100	100/100	100/100	90/90	100/100	150/150
	100/100	90/90	100/100	100/100	100/100	90/90	100/100	150/150
	-	20/20 (300V) (*2)	40/40 (300V) (*2)	40/40 (300V) (*2)	40/40 (300V) (*2)	20/20 (300V) (*2)	40/40 (300V) (*2)	-
	8	8	8	8	8	8	8	8
	AC	AC/DC compatible	AC/DC compatible	AC/DC compatible (*1)	AC/DC compatible (*1)	AC/DC compatible	AC/DC compatible	AC
	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible
	Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible
	25,000	40,000	40,000	25,000	25,000	25,000	25,000	25,000
	10,000	15,000	15,000	10,000	10,000	10,000	10,000	10,000
	A	A	A	A	A	A	A	A
	3	3	3	3	3	3	3	3
	A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	105 140	105 140	105 140	105 140	105 140	105 140	105 140	105
	165	165	165	165	165	165	165	165
	68	68	68	68	68	68	68	68
	92	92	92	92	92	92	92	92
	1.7 2.2	1.4 1.6 2.0	1.4 1.6 2.0	1.4 1.6 2.0	1.4 1.6 2.0	1.4 1.6 2.0	1.4 1.6 2.0	1.5 1.8
	●Screw terminal	●Screw terminal	●Screw terminal	●Screw terminal	●Screw terminal	●Screw terminal	●Screw terminal	●Busbar terminal
	●Bar stud	●Bar stud	●Bar stud	●Bar stud	●Bar stud	●Bar stud	●Bar stud	●Bar stud
	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)
	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)
	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)
	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)	●(*3)
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2 Detailed Specifications 1

Molded Case Circuit Breakers

NF-H / NF-R (High-performance class)

Frame (A)		250		400		630		800		
Model		NF250-HEV		NF400-HEW		NF400-REW		NF630-HEW		
Image										
Rated current In (A)		80-160 125-250		Adjustable 200 225 250 300 350 400		Adjustable 300 350 400 500 600 630		Adjustable 400 450 500 600 700 800		Adjustable 400 450 500 600 700 800
Rated ambient temperature 40°C (45°C for marine use)		3 4		3 4		3 4		3 4		3
Number of poles		3 4		3 4		3 4		3 4		3
Rated insulation voltage Ui (V)		690		690		690		690		690
Read short-circuit breaking capacity (kA)	IEC 60947-2 EN 60947-2 (Icu/Ics)	AC	690V	10/8	35/18	—	35/18	—	15/15	—
			500V	50/38	50/50	70/35	50/50	70/35	50/50	70/35
			440V	65/65	65/65	125/63	65/65	125/63	65/65	125/63
			415V	70/70	70/70	125/63	70/70	125/63	70/70	125/63
			400V	75/75	70/70	125/63	70/70	125/63	70/70	125/63
			380V	75/75	70/70	125/63	70/70	125/63	70/70	125/63
			230V	100/100	100/100	150/75	100/100	150/75	100/100	150/75
			200V	100/100	100/100	150/75	100/100	150/75	100/100	150/75
DC 250V	—	—	—	—	—	—	—	—		
Rated impulse withstand voltage Uimp (kV)		8		8		8		8		8
Current		AC		AC		AC		AC		AC
Suitability for isolation		Compatible		Compatible		Compatible		Compatible		Compatible
Reverse connection		Possible		Possible		Possible		Possible		Possible
Number of operating cycles	Without current	25,000		6,000		6,000		6,000		4,000
	With current (440VAC)	10,000		1,000		1,000		1,000		500
Utilization category		A		B		B		B		B
Rated short time with stand current Icu (kA) at 0.25s		—		5		7.6		7.6		9.6
Pollution degree		3		3		3		3		3
EMC environment condition (environment A or B)		A		A		A		A		A
Overall dimensions (mm)		a	105 140	140 185	140	140 185	140	210 280	210	
		b	165	257	257	257	275	275		
		c	68	103	103	103	103	103		
		ca	92	155	155	155	155	155		
Mass of front-face type (kg)		1.7 2.2		6.0 7.6		6.5 8.3		6.0 10.9		14.2 10.9
Installation and connections	Front connection (F)	●Screw terminal		●Busbar terminal		●Busbar terminal		●Busbar terminal		●Busbar terminal
	Solderless (BOX) terminal (SL)	●		—		—		—		—
Cassette-type accessories	Rear (B)	●Bar stud		●Bar stud		●Bar stud		●Bar stud		●Bar stud
	Plug-in (PM)	●		●		●		●		●
	Alarm switch (AL)	●(*1)		●(*1)		●(*1)		●(*1)		●(*1)
	Auxiliary switch (AX)	●(*1)		●(*1)		●(*1)		●(*1)		●(*1)
	Shunt trip (SHT)	●(*1)		●(*1)		●(*1)		●(*1)		●(*1)
	Undervoltage trip (UVT)	●(*1)		●		●		●		●
	With lead-wire terminal block (SLT)	●		●		●		●		●
	Pre-alarm (PAL)	●		●(*2)		●(*2)		●(*2)		●(*2)
	Enclosure	●		—		—		—		—
	Dustproof (D)	●		—		—		—		—
External accessories	Waterproof (W)	●		—		—		—		—
	Electrical operation device (NFM)	●		●(*3)		●(*3)		●(*3)		●(*3)
	Mechanical interlock (MI) (*4)	●		●		●		●		●
	Breaker mounting	●		—		—		—		—
	LC	●		—		—		—		—
	HL	●		●		●		●		●
	HL-S	●		●		●		●		●
	External operating handle (F)	●		●		●		●		●
	(V)	●		●		●		●		●
	Terminal cover (TC-L, TC-S, TTC, BTC, PTC)	●		●		●		●		●
Rear stud (B-ST)	●		●		●		●		●	
Plug-in (PM)	●		●		●		●		●	
IEC 35mm rail mounting adapters		—		—		—		—		—
CE marking		Self-declaration		Self-declaration		Self-declaration		Self-declaration		Self-declaration
CCC recognition		Recognition in process		Recognition in process		Recognition in process		Recognition in process		Recognition in process
Marine use approval (NK, LR, ABS, GL)		☆ (LR, ABS, GL)		☆		☆		☆		☆
Automatic tripping device		Electronic (effective value detection)		Electronic (effective value detection)		Electronic (effective value detection)		Electronic (effective value detection)		Electronic (effective value detection)
Trip button		Equipped		Equipped		Equipped		Equipped		Equipped
Page of Characteristics and dimensions		154		158		164		164		166

Notes: *1 The cassette type design makes it easy for customer to install. Available for installation on side below 250A frame (excluding UVT).
 *2 Solid state relay output is option. Please specify if other output is necessary. (Standard type is thus SLT equipped).
 *3 Place an order of other models in conjunction with the circuit breaker.
 *4 Not isolation compatible, excluding 400 to 800A frame.

