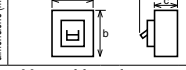
## ●NF-L / NF-H / NF-R (High-performance class)

| Frame (A) | | | | 50 | | | 60 | | | 63 | | | 100 | | | 125 | | | 125 | | | 125 | | | 125 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | | | | NF63-HV | | | | | | | | | NF125-HV | | | | | | NF125-LGV | | | NF125-HGV | | | NF125-RGV | | |
| Image | | | |  | | | | | | | | |  | | | | | |  | | |  | | |  | | |
| Rated current In (A) Rated ambient temperture 40°C (45°C for marine use) | | | | 10 15 16 20 25 30 32 40 50 | | | 60 | | | (63) | | | 15 16 20 30 32 40 50 60 63 75 80 100 | | | 125 | | | 16-20 20-25 25-32 32-40 35-50 45-63 56-80 70-100 90-125 | | | 16-20 20-25 25-32 32-40 35-50 45-63 56-80 70-100 90-125 | | | 16-20 20-25 25-32 32-40 40-50 50-63 63-80 80-100 100-125 | | |
| Number of poles | | | | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | |
| Rated insulation voltage Ui (V) | | | | 690 | | | 690 | | | 690 | | | 690 | | | 690 | | | 690 | | | 690 | | | 690 | | |
| Rated short-circuit breaking capacities (kA) | IEC 60947-2 EN 60947-2 (Icu/Ics) | AC | 690V | 2.5/2.5 | | | 2.5/2.5 | | | 2.5/2.5 | | | 10/8 | | | 10/8 | | | 8/8 | | | 10/8 | | | – | | |
| | | | 500V | 7.5/7.5 | | | 7.5/7.5 | | | 7.5/7.5 | | | 30/23 | | | 30/23 | | | 36/36 | | | 50/38 | | | – | | |
| | | | 440V | 10/8 | | | 10/8 | | | 10/8 | | | 50/38 | | | 50/38 | | | 50/50 | | | 65/65 | | | 125/125 | | |
| | | | 415V | 10/8 | | | 10/8 | | | 10/8 | | | 50/38 | | | 50/38 | | | 50/50 | | | 70/70 | | | 150/150 | | |
| | | | 400V | 10/8 | | | 10/8 | | | 10/8 | | | 50/38 | | | 50/38 | | | 50/50 | | | 75/75 | | | 150/150 | | |
| | | | 380V | 10/8 | | | 10/8 | | | 10/8 | | | 50/38 | | | 50/38 | | | 50/50 | | | 75/75 | | | 150/150 | | |
| | | | 230V | 25/19 | | | 25/19 | | | 25/19 | | | 100/75 | | | 100/75 | | | 90/90 | | | 100/100 | | | 150/150 | | |
| | | | 200V | 25/19 | | | 25/19 | | | 25/19 | | | 100/75 | | | 100/75 | | | 90/90 | | | 100/100 | | | 150/150 | | |
| | | DC | 250V | 7.5/7.5 (*5) | | | 7.5/7.5 (*5) | | | 7.5/7.5 (*5) | | | – | | | – | | | 20/20 (300V) (*2) | | | 40/40 (300V) (*2) | | | – | | |
| Rated impulse withstand voltage Uimp (kV) | | | | 8 | | | 8 | | | 8 | | | 8 | | | 8 | | | 8 | | | 8 | | | 8 | | |
| Current | | | | AC/DC compatible (*1) | | | AC/DC compatible (*1) | | | AC/DC compatible (*1) | | | AC | | | AC | | | AC/DC compatible | | | AC/DC compatible | | | AC | | |
| Suitability for isolation | | | | Compatible | | | Compatible | | | Compatible | | | Compatible | | | Compatible | | | Compatible | | | Compatible | | | Compatible | | |
| Reverse connection | | | | Possible | | | Possible | | | Possible | | | Possible | | | Possible | | | Possible | | | Possible | | | Possible | | |
| Number of operating cycles | Without current | | | 15,000 | | | 15,000 | | | 15,000 | | | 25,000 | | | 25,000 | | | 50,000 | | | 50,000 | | | 50,000 | | |
| | With current (440VAC) | | | 8,000 | | | 8,000 | | | 8,000 | | | 10,000 | | | 10,000 | | | 30,000 | | | 30,000 | | | 30,000 | | |
| Utilization category | | | | A | | | A | | | A | | | A | | | A | | | A | | | A | | | A | | |
| Pollution degree | | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | | 3 | | |
| EMC environment condition (environment A or B) | | | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | | | N/A | | |
| Overall dimensions (mm) |  | | a | 50 | 75 | 100 | 50 | 75 | 100 | 50 | 75 | 100 | 90 | | 120 | 90 | | 120 | 105 | | 140 | 105 | | 140 | 105 | | |
| | | | b | 130 | | | 130 | | | 130 | | | 130 | | | 130 | | | 165 | | | 165 | | | 165 | | |
| | | | c | 68 | | | 68 | | | 68 | | | 68 | | | 68 | | | 68 | | | 68 | | | 68 | | |
| | | | ca | 90 | | | 90 | | | 90 | | | 90 | | | 90 | | | 92 | | | 92 | | | 92 | | |
| Mass of front-face type (kg) | | | | 0.5 | 0.7 | 0.9 | 0.55 | 0.75 | 1.0 | 0.55 | 0.75 | 1.0 | 0.8 | 1.0 | 1.3 | 0.8 | 1.0 | 1.3 | 1.4 | 1.6 | 2.0 | 1.4 | 1.6 | 2.0 | 1.5 | 1.8 | |
| Installation and connections | Front connection | (F) | Page | ●Screw terminal | | | ●Screw terminal | | | ●Screw terminal | | | ●Screw terminal | | | ●Screw terminal | | | ● | | | ● | | | ●Screw terminal | | |
| | Solderless (BOX) terminal | (SL) | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | |
| | Rear | (B) | 716 | ●Round stud | | | ●Round stud | | | ●Round stud | | | ●Bar stud | | | ●Bar stud | | | ●Bar stud | | | ●Bar stud | | | ●Bar stud | | |
| | Plug-in | (PM) | | ● | | | ● | | | ● | | | ● | | ● | ● | | ● | ● | | | ● | | | ● | | |
| Cassette-type accessories | Alarm switch | (AL) | 725 | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● |
| | Auxiliary switch | (AX) | | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● |
| | Shunt trip | (SHT) | | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● |
| | Undervoltage trip | (UVT) | | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● | ● (*3) | | ● |
| | With lead-wire terminal block | (SLT) | 737 | ● | | ● | ● | | ● | ● | | ● | ● | | ● | ● | | ● | ● | | | ● | | | ● | | |
| | Pre-alarm | (PAL) | 739 | – | | | – | | | – | | | – | | | – | | | – | | | – | | | – | | |
| External accessories | Enclosure | Closed (S) | 753 | ● | | – | ● | | – | ● | | – | ● | | – | ● | | – | ● | | – | ● | | – | – | | |
| | | Dustproof (I) | | ● | | – | ● | | – | ● | | – | ● | | – | ● | | – | ● | | – | ● | | – | – | | |
| | | Waterproof (W) | | – | ● | – | – | ● | – | – | ● | – | ● | | – | ● | | – | ● | | – | ● | | – | – | | |
| | Electrical operation device | (NFM) | 756 | – | | | – | | | – | | | ● | | | ● | | | ● | | | ● | | | ● | | |
| | Mechanical interlock (MI) (*4) | Panel mounting | 752 | ● | | ● | ● | | ● | ● | | ● | ● | | ● | ● | | ● | ● | | | ● | | | ● | | |
| | | Breaker mounting | | ● | | – | ● | | – | ● | | – | ● | | – | ● | | – | ● | | | ● | | | ● | | |
| | Handle lock device | LC | 750 | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | |
| | | HL | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | |
| | | HL-S | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | |
| | External operating handle | (F) | 740 | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | |
| | | (V) | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | | ● | | |
| | Terminal cover (TC-L, TC-S, TTC, BTC, PTC) | | 744 | ● | | ● | ● | | ● | ● | | ● | ● | | ● | ● | | ● | ● | | | ● | | | ● | | |
| | Rear stud | (B-ST) | 718 | ● | | | ● | | | ● | | | ● | ● | ● | ● | ● | ● | ● | | | ● | | | ● | | |
| | Plug-in | (PM) | | ● | | ● | ● | | ● | ● | | ● | ● | ● | ● | ● | ● | ● | ● | | | ● | | | ● | | |
| | IEC 35mm rail mounting adapters | | 759 | ● | | – | ● | | – | ● | | – | – | | | – | | | – | | | – | | | – | | |
| CE marking | | | | Self-declaration | | | Self-declaration | | | Self-declaration | | | 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 | | | Recognition in process | | | Recognition in process | | | Recognition in process | | |
| Marine use approval (NK, LR, ABS, GL) | | | | ☆ | | – | ☆ | | – | ☆ | | – | ☆ | | – | ☆ | | – | ☆ (LR, ABS, GL) | | – | ☆ (LR, ABS, GL) | | – | ☆ (LR, ABS, GL) | | |
| Automatic tripping device | | | | Thermal-magnetic | | | Thermal-magnetic | | | Thermal-magnetic | | | Thermal-magnetic | | | Thermal-magnetic | | | Thermal-magnetic | | | Thermal-magnetic | | | Thermal-magnetic | | |
| Trip button | | | | Equipped | | | Equipped | | | Equipped | | | Equipped | | | Equipped | | | Equipped | | | Equipped | | | Equipped | | |
| Page of Characteristics and dimensions | | | | 762 | | | | | | | | | 764 | | | | | | 772 | | | 772 | | | 772 | | |

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, three and four 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 UVT).
*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.