MITSUBISHI ELECTRIC

MOLDED-CASE CIRCUIT BREAKERS INSTRUCTION MANUAL

Types NF400-SEW, NF400-HEW, NF400-REW, NF400-UEW ▪
NF630-SEW, NF630-HEW, NF630-REW ▪
NF800-CEW, NF800-SEW, NF800-HEW, NF800-REW
NF800-UEW, NF800-SEWL ▪
NF1000-SEW, NF1250-SEW, NF1600-SEW ▪
NF1200-UR

1. Before using

- Please peruse this instruction manual before using.
- Please handle this product by skilled or instructed person.

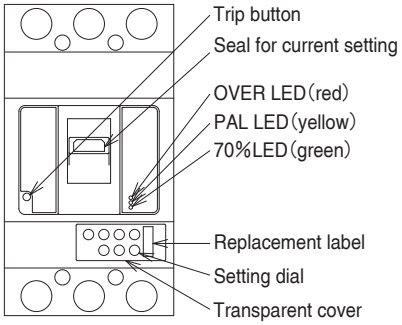
2. Caution for handlings

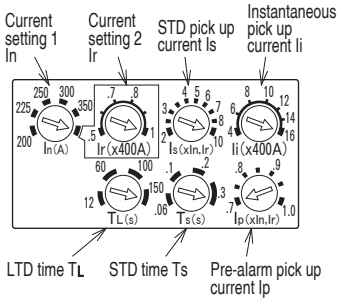
- Connect a suitable electric wire for the rated current to power source side and load side.
- In the case of single-phase two-wire system, connect the electric wire to the right and the left pole.
- In the case of three-phase four-wire system, connect the neutral wire to the neutral pole of circuit breaker.

3. Setting method of the operating characteristics

CAUTION

Before setting, turn off the upper circuit breaker, or turn off the circuit breaker to be set or trip the breaker, then make sure of no current conducting.

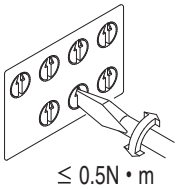




Step adjustable:
Current setting 1 In,
LTD time TL,
STD pick up current Is,
STD time Ts,
Pre-alarm pick up current Ip

Continuously adjustable:
Current setting 2 Ir, (Note1)
Instantaneous pick up current Ii

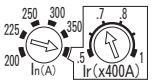
(1) Open the transparent cover.
(2) Set operating characteristics by turning the dials.
- A slotted head screwdriver of 4.5mm width and 0.6mm thickness at the top is suitable for the setting.
- Please operate the dials by the power less than 0.5N・m. Otherwise, characteristics setting device may be broken.
- Please set the step adjustable dials by the scale. Otherwise, characteristic is not set up correctly. As for Is setting, a set value may advance to the next one in some causes.
- In case of LTD time TL="12s", the LTD time may be shorter than the STD time.



(3) The blank labels may be used for indication of the current setting.
Please fill in the blank label with oily ink, and stick the label to the top of the handle.
(4) Close the transparent cover.

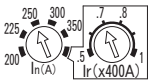
Note 1) Current setting 2 Ir becomes effective when current setting 1 In is set at maximum.

Example 1



Current setting 1 : Maximum
Current setting 2 : 0.7
Current setting : 280A(=400A×0.7)

Example 2

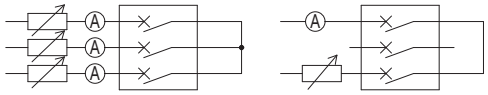


Current setting 1 : 250A
Current setting 2 : 0.7 ← Not effective
Current setting : 250A

4. Testing method

Check operation with load current or using the breaker tester "Y-250"(option).
If the breaker tester "Y-250" is used, execute the test according to its manual.

(1) Apply AC current to the circuit-breaker from three-phase or single-phase power supply.
In case of single-phase power supply,apply the current with any two poles in series.

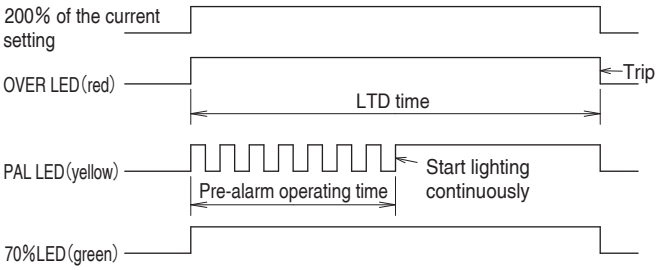


Current regulation resistance

Current regulation resistance

(2) Check following items by each LED in front of circuit breaker.
OVER LED(red):LED lights among 105 to 125% of current setting.
PAL LED(yellow):In case of Pre-alarm pick up current Ip=0.7, LED blinks among 60 to 80% of current setting.
70% LED(green):LED lights among 60 to 80% of current setting.

(3) LTD and pre-alarm operating time can be checked by load current equivalent to 200% of the current setting. If operating current of circuit breaker is measured just before this test, operating time is shorter. In this case, please measure again after circuit breaker is tripped.



The result is good if the operating time measured falls within the following range.

Setting of LTD time TL	TL=12s	TL=60s	TL=100s	TL=150s
Pre-alarm operation time	4.8～7.2s	24～36s	40～60s	60～90s
LTD operating time	9.6～14.4s	48～72s	80～120s	120～180s