

Industrial & Electrical Components

Moulded Case  
Earth Leakage  
Circuit Breaker

Part No.

RDM3L

Feature

- Energy distribution, overload/short-circuit/under-voltage protection.
- Used for circuit of AC 50/60Hz, rated insulation voltage up to 800V, rated working voltage up to 690V, rated working current 10-630A.
- As per standard IEC60947-2, GB14048.2



ORDERING INFORMATION

RDM3L - 100 - S P - 4 - 2

- ①                      ②                      ③ ④                      ⑤                      ⑥

- ① Series: RDM7LE series
- ② Shell grade: 63, 100, 225, 400, 630
- ③ Break capacity: S = Standard version  
H = Superior version
- ④ Handle: Nil = Manual  
P = Ellectrical  
Z = Rotary
- ⑤ Pole: 2, 3, 4
- ⑥ Protection: Nil = Power protection  
2 = Motor protection

TECHNICAL DATA

| Model      | Inm (A) | In (A)                                 | Un (V) | IΔnm (A)                    | IΔnom (A)                 | Icu (kA) | Ics (kA) | No. of pole |
|------------|---------|--|--------|-----------------------------|---------------------------|----------|----------|-------------|
| RDM3L-100L | 63      | 16, 20, 25, 32, 40,<br>50, 63, 80, 100 | 230    | 30, 50, 100, 200,<br>300    | 15, 25, 50, 100,<br>150   | 30       | 5        | 2           |
| RDM3L-100M | 63      |  | 400    |                             |                           | 50       | 25       | 3, 4, 3N    |
| RDM3L-225L | 225     | 100, 125, 160,<br>180, 200, 225        | 400    | 50, 100, 200,<br>300, 500   | 25, 50, 100, 150,<br>250  | 30       | 15       | 3           |
| RDM3L-225M | 225     |  | 400    |                             |                           | 50       | 25       | 4, 3N       |
| RDM3L-400  | 400     | 225, 250, 315,<br>350, 400             | 400    | 100, 200, 300,<br>500       | 50, 100, 150, 250         | 50       | 25       | 4, 3N       |
| RDM3L-630  | 630     | 400, 500, 630                          | 400    | 100, 200, 300,<br>500, 1000 | 50, 100, 150,<br>250, 500 | 65       | 32       | 4, 3N       |

Note: All test parameter is under 400V, 6A without thermal actuating trip

## WORKING CONDITIONS

### > Ambient Temperature

The circuit breaker can work at ambient temperature from  $-5^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  (except special demand).

### > Altitude

The circuit breaker can work normally at altitude within 2000m.

### > Class of pollution

The class of pollution where it is installed is Class 3.

### > Mounting type

The circuit breaker is Type III.

### > Mounting position

The circuit breaker can be installed vertically, horizontally or flatly, which will not decrease its electric characteristics.

> Environmental factors are adequately considered in the design of circuit breaker, with many recoverable and degradable materials.

> Installation site in the vicinity of external magnetic field in any direction does not exceed 5 times of the geomagnetic field.

## ACTION CHARACTERISTICS

### Power protection

|                               | I/In | Time  |
|-------------------------------|------|---|
| Non-tripping current $I_{nt}$ | 1.05 | 2h ( $I_n > 63\text{A}$ ), 1h ( $I_n \leq 63\text{A}$ ) |
| Tripping current $I_t$        | 1.3  | 2h ( $I_n > 63\text{A}$ ), 1h ( $I_n \leq 63\text{A}$ ) |

### Motor protection

| I/In | Time                 |                                   |                                 |
|------|----------------------|-----------------------------------|---------------------------------|
|      | $I_{nm}=100\text{A}$ | $I_{nm}=225\text{A}, 400\text{A}$ | $I_{nm}=630\text{A}$            |
| 1.05 | >2h                  | >2h                               | >2h                             |
| 1.2  | $\geq 2\text{h}$     | $\geq 2\text{h}$                  | $\geq 2\text{h}$                |
| 1.5  | $\leq 4\text{min}$   | $\leq 4\text{min}$                | $\leq 8\text{min}$              |
| 7.2  | $T \geq 1\text{s}$   | $4\text{s} < T \leq 10\text{s}$   | $6\text{s} < T \leq 20\text{s}$ |

### Over-current

| $I\Delta n$<br>(mA) | $I_n$<br>(mA) | Max. Time (s) |              |                |              |
|---------------------|---------------|---------------|--------------|----------------|--------------|
|                     |               | $I\Delta n$   | $2I\Delta n$ | $0.25\text{A}$ | $5I\Delta n$ |
| $\leq 30$           | any           | $\leq 0.1$    | —            | $\leq 0.04$    | —            |
| $> 30$              | any           | $\leq 0.2$    | $\leq 0.1$   |                | $\leq 0.04$  |

### Time-current

| Delay time (s) | Break time (s) |              |
|----------------|----------------|--------------|
|                | $I\Delta n$    | $5I\Delta n$ |
| 0.2            | $< 0.4$        | 0.1~0.24     |
| 0.4            | $< 0.6$        | 0.2~0.44     |
| 0.6            | $< 0.8$        | 0.3~0.64     |

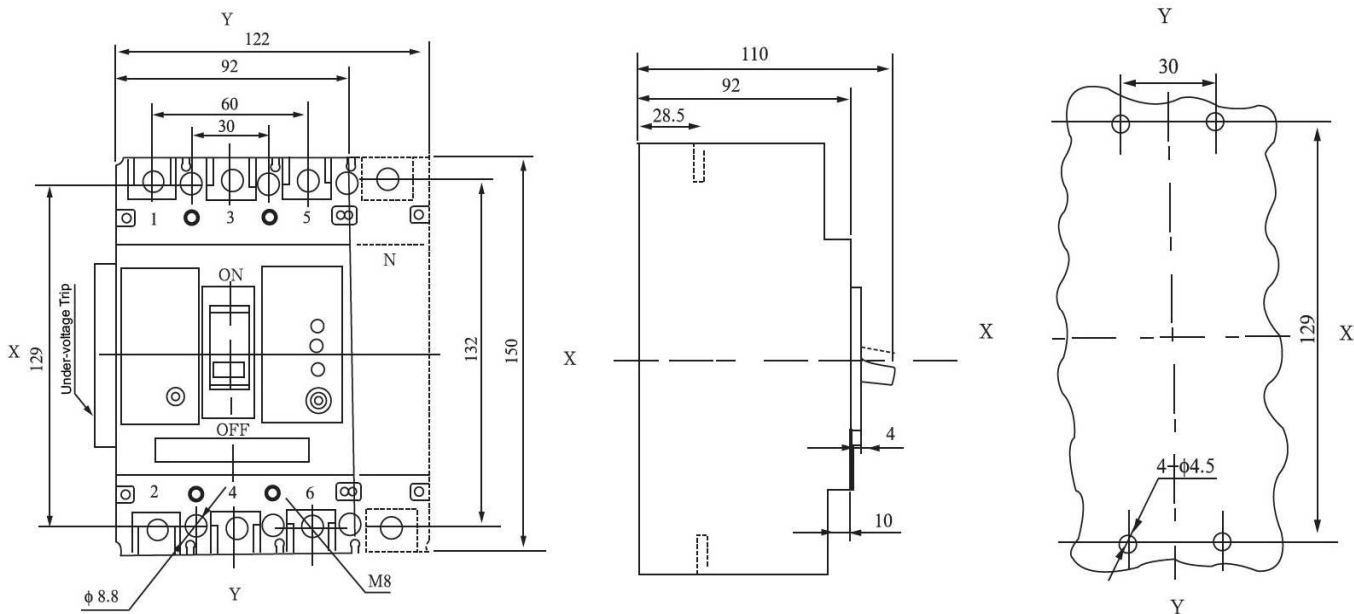
## ACCESSORIES

| Code | Name               |
|------|--------------------|
| 208  | Warning contact    |
| 308  |                    |
| 210  | Shunt trip         |
| 310  |                    |
| 220  | Auxiliary contact  |
| 320  |                    |
| 228  | Auxiliary contact  |
| 328  | Warning contact    |
| 230  | Under-voltage trip |
| 330  |                    |

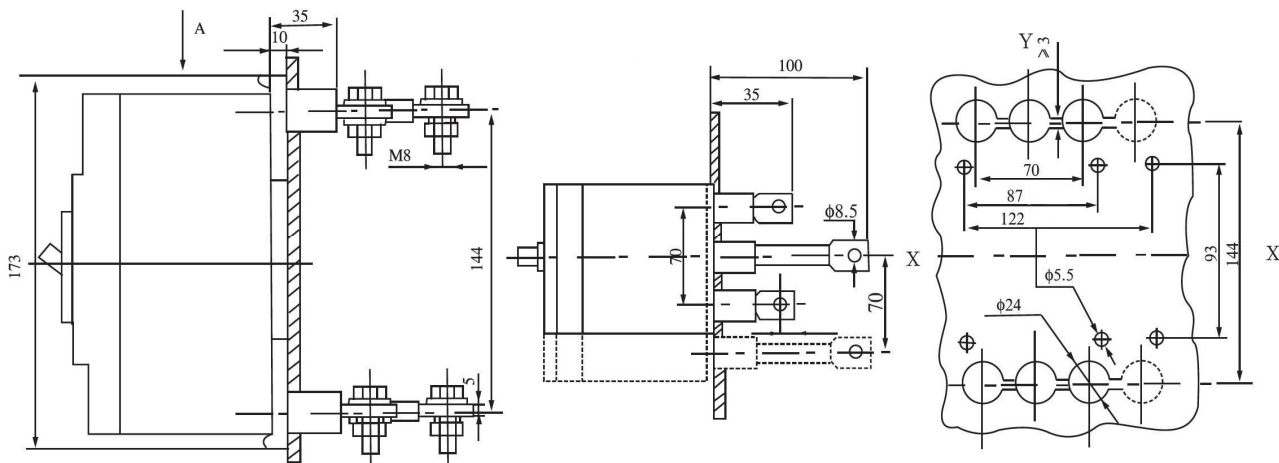
Note: 200 indicates circuit breaker body with electromagnetic release only;  
300 indicates circuit breaker body with electromagnetic and thermal actuating trip

# DIMENSION (mm)

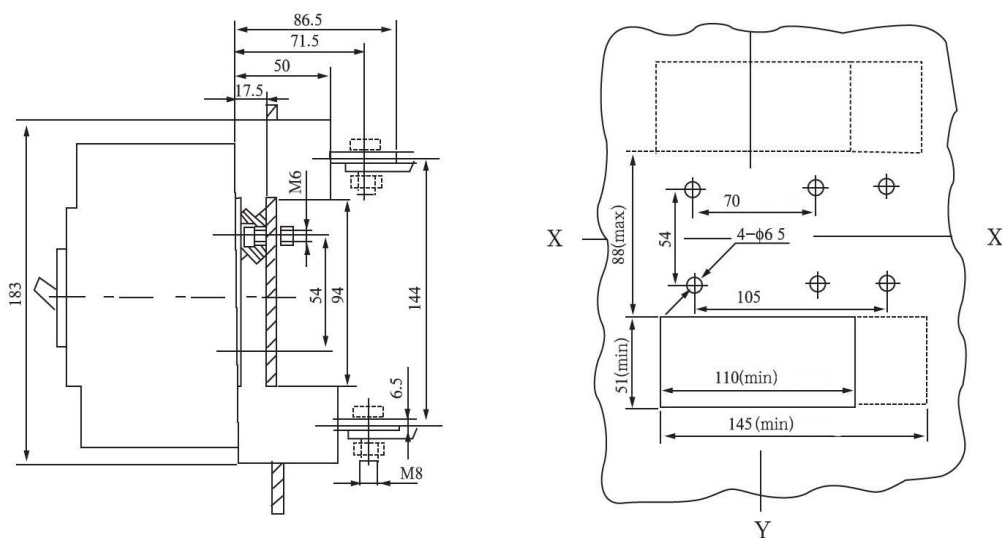
## Front wiring diagram



## Rear wiring diagram



## Back wiring diagram (Plug-in type)



| Model              | Front wiring |     |       |     |     |     |       |      |    |    |     | Rear wiring |     |       |    |
|--------------------|--------------|-----|-------|-----|-----|-----|-------|------|----|----|-----|-------------|-----|-------|----|
|                    | W            | L   | H     | W1  | L1  | L2  | H1    | H2   | E  | F  | G   | L2          | L3  | H3    | ød |
| RDM3L-100L, M 3P   | 92           | 150 | 92    | 60  | 100 | 132 | 110   | 28.5 | 51 | 23 | 4.5 | 132         | 90  | 93    | 22 |
| RDM3L-100L 4P      | 122          | 150 | 92    | 90  | 100 | 132 | 110   | 28.5 | 51 | 23 | 4.5 | 132         | 90  | 93    | 22 |
| RDM3L-225L, M 3P   | 107          | 165 | 90    | 70  | 133 | 144 | 110   | 24   | 62 | 22 | 4.0 | 144         | 93  | 100   | 24 |
| RDM3L-225L 4P      | 142          | 165 | 90    | 105 | 133 | 144 | 110   | 24   | 62 | 22 | 4.0 | 144         | 93  | 100   | 24 |
| RDM3L-400L 3P      | 150          | 257 | 106.5 | 96  | 221 | 224 | 146.5 | 38   | 89 | 65 | 6.0 | 224         | 164 | 108.5 | 32 |
| RDM3L-400L 4P      | 198          | 257 | 106.5 | 144 | 221 | 224 | 146.5 | 38   | 89 | 65 | 6.0 | 224         | 164 | 108.5 | 32 |
| RDM3L-630M/800L 3P | 210          | 280 | 115.5 | 154 | 240 | 243 | 155   | 43   | 81 | 66 | 4.5 | 243         | 158 | 84    | 48 |
| RDM3L-630M/800L 4P | 280          | 280 | 115.5 | 210 | 240 | 243 | 155   | 43   | 81 | 66 | 4.5 | 243         | 158 | 84    | 48 |

| Plug-in type |    |    |      |       |     |     |     | Hole size |     |     |     |     |    |
|--------------|----|----|------|-------|-----|-----|-----|-----------|-----|-----|-----|-----|----|
| L4           | L5 | H4 | H5   | H6    | C   | D   | ød  | A         | B   | ød  | A   | B   | H  |
| 168          | 92 | 50 | 64   | 76    | 56  | 60  | 6.5 | 30        | 129 | 4.5 | 90  | 94  | 41 |
| 168          | 92 | 50 | 64   | 76    | 56  | 60  | 6.5 | 30        | 129 | 4.5 | 90  | 125 | 41 |
| 183          | 94 | 50 | 71.5 | 86.5  | 54  | 70  | 6.5 | 35        | 126 | 4.5 | 88  | 110 | 51 |
| 183          | 94 | 50 | 71.5 | 86.5  | 54  | 105 | 6.5 | 35        | 126 | 4.5 | 88  | 145 | 51 |
| 279          | –  | 60 | 83.5 | 106.5 | 129 | 60  | 8.5 | 44        | 194 | 7.0 | 166 | 152 | 58 |
| 279          | –  | 60 | 83.5 | 106.5 | 129 | 108 | 8.5 | 44        | 194 | 7.0 | 166 | 200 | 58 |
| 296          | –  | 61 | 97   | 148   | 143 | 140 | 10  | 70        | 243 | 7.0 | 183 | 213 | 58 |
| 296          | –  | 61 | 97   | 148   | 143 | 210 | 10  | 70        | 243 | 7.0 | 183 | 183 | 58 |