

# AC Moulded Case Circuit Breaker

Catalogue >

Reliability in  
Circuit Breaker

# Content

## LDM7 Series AC Moulded Case Circuit Breaker

|                                              |    |
|----------------------------------------------|----|
| LDM7 Series Overview                         | 01 |
| LDM7 Series Model Definition and Description | 02 |
| LDM7 Series Technical Data                   | 03 |
| LDM7 Series Protection Characteristics       | 05 |
| LDM7 Series Curves                           | 08 |
| LDM7 Series Dimensions                       | 15 |

## LDM7 Series Accessories

|                                         |    |
|-----------------------------------------|----|
| Accessories for Electrical Applications | 23 |
| Internal Accessory Codes                | 25 |
| Auxiliary Contacts                      | 29 |
| Alarm Contacts                          | 30 |
| Under-voltage Release                   | 31 |
| Shunt Trip                              | 32 |
| Motor Operated Mechanism                | 33 |
| Manual Operating Mechanism              | 34 |
| Standard Extended Rotary Handle         | 35 |
| Extended Handle                         | 36 |
| Mechanical Interlocking Mechanism       | 37 |
| Interphase Barrier                      | 37 |
| Plug-in Accessory                       | 38 |
| Rear Connection                         | 38 |
| Technical Data                          | 39 |

# Moulded Case Circuit Breaker

## LDM7 Series

### AC MCCB



- The circuit breaker provides isolation function
- Mounting: Vertical or horizontal mounting
- Breaking Capacity Code: L, M, H
- Indicated by the symbol: " ———— ⚡ ———— "
- Compliance: IEC/EN 60947-1  
IEC/EN 60947-2  
IEC/EN 60947-3  
IEC/EN 60947-4

LDM7 Series Molded Case Circuit Breakers (MCCB) are suitable for use in AC circuits at 50/60 Hz, with a rated operating voltage of 400 V or 690 V, and a rated operating current up to 630 A ( $I_{nm} \leq 630$  A). They are used for infrequent switching and infrequent starting of motors.

The circuit breakers feature overload, short-circuit, and under-voltage protection functions, capable of protecting lines and power supply equipment from damage. According to their short-circuit breaking capacities, the circuit breakers are classified into three types: Type L (standard), Type M (higher breaking capacity), and Type H (high breaking capacity).

These circuit breakers boast the advantages of compact size, high breaking capacity, short arcing distance, anti-vibration performance, modular installation of accessories, and easy operation.

## Mechanical & Environmental

| Mechanical & Environmental |                                                                                                                                                                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Humidity           | The product has passed dry heat, cold, and damp heat environmental tests, ensuring reliable operation in non-standard environments.                                                                                                                                                      |
| Ambient Temperature        | The operating temperature range is -35 °C to 70 °C.<br>For temperatures below -5 °C or above 40 °C,<br>It shall be calculated based on the temperature compensation curve provided in this catalog (See pp. 08-13).                                                                      |
| Altitude                   | The standard installation altitude is up to 2000 m.<br>For altitudes above 2000 m, the reduction in dielectric strength and cooling effect must be considered. Please refer to the "Altitude Derating and Correction Factor Table" (See the table below) in this catalog for correction. |
| Pollution Degree           | 3                                                                                                                                                                                                                                                                                        |
| Degree of Protection       | IP30 (excluding terminals)                                                                                                                                                                                                                                                               |
| Mounting Type              | Fixed type, Plug-in type                                                                                                                                                                                                                                                                 |
| Trip Unit Type             | Electromagnetic, Thermal-magnetic, Adjustable magnetic,<br>Adjustable thermal, Adjustable thermal-magnetic                                                                                                                                                                               |



## Altitude Derating and Correction Factor Table

Altitudes of 2000m and below have no effect on circuit breaker performance. For altitudes above 2000m, the electrical performance of the circuit breaker shall be corrected according to the table below.

| Altitude (m)                          | 2000    | 3000       | 4000       | 5000       |
|---------------------------------------|---------|------------|------------|------------|
| Operating Current Correction Factor   | 1 $I_n$ | 0.94 $I_n$ | 0.88 $I_n$ | 0.85 $I_n$ |
| Maximum Operating Voltage (V)         | 690     | 600        | 500        | 440        |
| Insulation Voltage (V)                | 1000    | 800        | 700        | 600        |
| Power-frequency Withstand Voltage (V) | 2000    | 1500       | 1000       | 800        |

## LDM7 Series

### Model Definition and Description

|      |   |     |   |   |   |   |     |   |   |   |      |     |
|------|---|-----|---|---|---|---|-----|---|---|---|------|-----|
| LDM7 | - | 250 | L | P | / | 4 | 300 | I | 2 | A | 100A | OTH |
| ①    |   | ②   | ③ | ④ |   | ⑤ | ⑥   | ⑦ | ⑧ | ⑨ | ⑩    | ⑪   |

| NO. | Definition                                          | Description                                                                                                                                                                                                                                                                                                                    |
|-----|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ①   | Product Designation                                 | LDM7 Series Molded Case Circuit Breakers (MCCB)                                                                                                                                                                                                                                                                                |
| ②   | Rated Frame Current Code                            | 63      125      160      250      400      630      W630                                                                                                                                                                                                                                                                      |
| ③   | Breaking Capacity Code                              | L: 15 kA, M: 36 kA, H: 50 kA      L: 20 kA, M: 36 kA, H: 65 kA      L: 36 kA, M: 50 kA, H: 75 kA                                                                                                                                                                                                                               |
| ④   | Operating Mode Codes                                | No code: Direct manual operation (by handle)<br>P: Electric operation<br>Z: Rotary handle operation                                                                                                                                                                                                                            |
| ⑤   | Pole Codes <sup>a</sup>                             | 2: 2-Pole<br>3: 3-Pole<br>4: 4-Pole                                                                                                                                                                                                                                                                                            |
| ⑥   | Trip Unit and Internal Accessory Codes <sup>b</sup> | <ul style="list-style-type: none"> <li>1st Digit (Trip Unit Type):<br/>2: Electromagnetic<br/>3: Thermomagnetic<br/>(Note: For thermal overload alarm without tripping, only '2' is available.)</li> <li>2nd &amp; 3rd Digits: Internal Accessory Codes</li> </ul>                                                             |
| ⑦   | Extended Function Codes <sup>c</sup>                | No code: Standard product<br>TMD: Adjustable magnetic protection<br>TMG: Adjustable thermal protection<br>TMA: Adjustable thermomagnetic protection<br>I: Thermal overload alarm (without tripping)<br>II: Thermal overload alarm (with tripping)                                                                              |
| ⑧   | Application Codes                                   | No code: Distribution protection<br>2: Motor protection<br>3: Generator protection                                                                                                                                                                                                                                             |
| ⑨   | N-Pole Type Codes <sup>d</sup>                      | A: No N-pole over-current tripping element; N pole solidly connected.<br>B: No N-pole over-current tripping element; N pole switches with phase poles.<br>C: N-pole over-current tripping element installed; N pole switches with phase poles.<br>D: N-pole over-current tripping element installed; N pole solidly connected. |
| ⑩   | Rated Current <sup>e</sup>                          | 10-630 A                                                                                                                                                                                                                                                                                                                       |
| ⑪   | Others                                              | Installation and Wiring Instructions or Accessory Control Voltage Specifications                                                                                                                                                                                                                                               |

#### Ordering Example:

LDM7-250LP/3300 250A: One 3-pole MCCB with a frame current of 250 A, 36 kA breaking capacity, motor operating mechanism, no internal accessories, and a rated current of 250 A for distribution protection.

#### Notes:

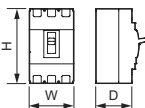
- Poles and breaking capacities by frame.
- Trip unit and internal accessory codes (See pp. 25-28).
- Overload alarm without tripping is available only for 160-250 A Frame H and 400-630 A frames.  
Adjustable thermal protection is also available for 160-250 A Frame H and 400-630 A frames.
- Type B N-pole is standard for 4-pole breakers. Please contact your local office for Types A, C, or D.
- Rated currents by frame (See the table below).

### Frame Current vs Rated Current Table

| Rated Current (A)                | 10   | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 140 | 160 | 180 | 200 | 225 | 250 | 280 | 315 | 320 | 350 | 400 | 500 | 630 |
|----------------------------------|------|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Rated Frame Current $I_{nm}$ (A) | 63   | ■  | ■  | ■  | ■  | ■  | ■  | ■  |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                  | 125  | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■  | ■   | ■   |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                  | 160  |    |    |    | ■  | ■  | ■  | ■  | ■  | ■   | ■   | ■   | ■   |     |     |     |     |     |     |     |     |     |     |     |
|                                  | 250  |    |    |    |    |    |    |    |    |     | ■   | ■   | ■   | ■   | ■   | ■   | ■   |     |     |     |     |     |     |     |
|                                  | 400  |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     | ■   | ■   | ■   | ■   | ■   | ■   |     |     |
|                                  | 630  |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     | ■   | ■   | ■   |
|                                  | W630 |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     | ■   |

## LDM7 Series

### Technical Data

| Rated Frame Current I <sub>nm</sub> (A)                             |                                                                                     |                           | 63                                                                                |    |    | 125                                                                                |    |    | 160                                                                                 |    |    |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------|----|----|------------------------------------------------------------------------------------|----|----|-------------------------------------------------------------------------------------|----|----|
| Product Image                                                       |                                                                                     |                           |  |    |    |  |    |    |  |    |    |
| Rated Current I <sub>n</sub> (A) at 40 °C                           |                                                                                     |                           | 10, 16, 20, 25, 32, 40, 50, 63                                                    |    |    | 63, 80, 100, 125                                                                   |    |    | 100, 125, 140, 160                                                                  |    |    |
| Rated Insulation Voltage U <sub>i</sub> (V)                         |                                                                                     |                           | 800                                                                               |    |    | 800                                                                                |    |    | 1000                                                                                |    |    |
| Rated Impulse Withstand Voltage U <sub>imp</sub> (kV)               |                                                                                     |                           | 8                                                                                 |    |    | 8                                                                                  |    |    | 8                                                                                   |    |    |
| Rated Operational Voltage U <sub>e</sub> (V), AC 50/60 Hz           |                                                                                     |                           | 220/230/240/380/400/415                                                           |    |    | 220/230/240/380/400/415                                                            |    |    | 380/400/415/500/660/690                                                             |    |    |
| Breaking Capacity Code                                              |                                                                                     |                           | L                                                                                 | M  | H  | L                                                                                  | M  | H  | L                                                                                   | M  | H  |
| Number of Poles                                                     | 2P                                                                                  |                           | ■                                                                                 | -  | -  | ■                                                                                  | -  | -  | ■                                                                                   | -  | -  |
|                                                                     | 3P                                                                                  |                           | ■                                                                                 | ■  | ■  | ■                                                                                  | ■  | ■  | ■                                                                                   | ■  | ■  |
|                                                                     | 4P                                                                                  |                           | ■                                                                                 | ■  | ■  | ■                                                                                  | ■  | ■  | ■                                                                                   | ■  | ■  |
| Rated Ultimate Short-circuit Breaking Capacity I <sub>cu</sub> (kA) | AC 380 / 400 / 415 V                                                                |                           | 25                                                                                | 36 | 65 | 25                                                                                 | 36 | 65 | 36                                                                                  | 50 | 70 |
|                                                                     | AC 500 / 660 / 690 V                                                                |                           | -                                                                                 | -  | -  | -                                                                                  | -  | -  | 8                                                                                   | 10 | 20 |
| Rated Service Short-circuit Breaking Capacity I <sub>cs</sub> (kA)  | AC 380 / 400 / 415 V                                                                |                           | 15                                                                                | 25 | 50 | 15                                                                                 | 25 | 50 | 20                                                                                  | 36 | 55 |
|                                                                     | AC 500 / 660 / 690 V                                                                |                           | -                                                                                 | -  | -  | -                                                                                  | -  | -  | 5                                                                                   | 5  | 15 |
| Compliance                                                          |                                                                                     |                           | IEC/EN 60947-2                                                                    |    |    |                                                                                    |    |    |                                                                                     |    |    |
| Utilization Category                                                |                                                                                     |                           | A                                                                                 |    |    | A                                                                                  |    |    | A                                                                                   |    |    |
| Isolating Function (Applicable to Type B and C products)            |                                                                                     |                           | ■                                                                                 |    |    | ■                                                                                  |    |    | ■                                                                                   |    |    |
| Wiring Method                                                       |                                                                                     |                           | Top Entry, Bottom Exit                                                            |    |    |                                                                                    |    |    |                                                                                     |    |    |
| Operating Temperature Range                                         |                                                                                     |                           | -35 °C to 70 °C                                                                   |    |    |                                                                                    |    |    |                                                                                     |    |    |
| Arcing Distance                                                     |                                                                                     |                           | ≤ 50                                                                              |    |    | ≤ 50                                                                               |    |    | ≤ 50                                                                                |    |    |
| Mechanical Endurance (Times)                                        | Unmaintained                                                                        |                           | 20000                                                                             |    |    | 20000                                                                              |    |    | 20000                                                                               |    |    |
|                                                                     | Maintained                                                                          |                           | 40000                                                                             |    |    | 40000                                                                              |    |    | 40000                                                                               |    |    |
| Electrical Endurance (Times)                                        | AC 415 V, I <sub>n</sub>                                                            |                           | 10000                                                                             |    |    | 10000                                                                              |    |    | 10000                                                                               |    |    |
| Tripping & Protection Type                                          | Magnetic Trip Unit                                                                  | Distribution Protection   | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     |                                                                                     | Motor Protection          | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     |                                                                                     | Generator Protection      | -                                                                                 |    | -  | -                                                                                  |    | -  | ■                                                                                   |    | ■  |
|                                                                     | Thermomagnetic Trip Unit                                                            | Distribution Protection   | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     |                                                                                     | Motor Protection          | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     |                                                                                     | Generator Protection      | -                                                                                 |    | -  | -                                                                                  |    | -  | ■                                                                                   |    | ■  |
| Accessories                                                         | Auxiliary Contacts                                                                  |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     | Alarm Contacts                                                                      |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     | Shunt Release                                                                       |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     | Under-voltage Release                                                               |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     | Manual Operating Mechanism                                                          |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     | Motor Operating Mechanism                                                           |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     | Rear Connection                                                                     |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     | Plug-in                                                                             |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     | Connecting Bar                                                                      |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
|                                                                     | Phase Barriers                                                                      |                           | ■                                                                                 |    | ■  | ■                                                                                  |    | ■  | ■                                                                                   |    | ■  |
| Derivative Products                                                 | For Prepaid Meters                                                                  |                           | ■                                                                                 |    | -  | ■                                                                                  |    | -  | ■                                                                                   |    | -  |
|                                                                     | Overload Alarm Without Tripping                                                     |                           | -                                                                                 |    | -  | -                                                                                  |    | -  | -                                                                                   |    | ■  |
| Dimensions (mm)                                                     |                                                                                     | W (2P / 3P / 4P)          | 56 / 78 / 103                                                                     |    |    | 56 / 78 / 103                                                                      |    |    | 78 / 107 / 142                                                                      |    |    |
| Width (W) × Height (H) × Depth (D)                                  |  | H                         | 130                                                                               |    |    | 130                                                                                |    |    | 165                                                                                 |    |    |
|                                                                     |                                                                                     | D (Type L / Type M and H) | 63.5 / 73.5                                                                       |    |    | 63.5 / 73.5                                                                        |    |    | 61.5 / 87                                                                           |    |    |

## LDM7 Series

| 250                                                                               |    |    | 400                                                                               |    |     | 630                                                                                |    |     | W630                                                                                |    |     |
|-----------------------------------------------------------------------------------|----|----|-----------------------------------------------------------------------------------|----|-----|------------------------------------------------------------------------------------|----|-----|-------------------------------------------------------------------------------------|----|-----|
|  |    |    |  |    |     |  |    |     |  |    |     |
| 160, 180, 200, 225, 250                                                           |    |    | 250, 315, 350, 400                                                                |    |     | 400, 500, 630                                                                      |    |     | 400, 500, 630                                                                       |    |     |
| 1000                                                                              |    |    | 1000                                                                              |    |     | 1000                                                                               |    |     | 1000                                                                                |    |     |
| 8                                                                                 |    |    | 12                                                                                |    |     | 12                                                                                 |    |     | 12                                                                                  |    |     |
| 380/400/415/500/660/690                                                           |    |    | 380/400/415/500/660/690                                                           |    |     | 380/400/415/500/660/690                                                            |    |     | 380/400/415/500/660/690                                                             |    |     |
| L                                                                                 | M  | H  | L                                                                                 | M  | H   | L                                                                                  | M  | H   | L                                                                                   | M  | H   |
| ■                                                                                 | -  | -  | -                                                                                 | -  | -   | -                                                                                  | -  | -   | -                                                                                   | -  | -   |
| ■                                                                                 | ■  | ■  | ■                                                                                 | ■  | ■   | ■                                                                                  | ■  | ■   | ■                                                                                   | ■  | ■   |
| ■                                                                                 | ■  | ■  | ■                                                                                 | ■  | ■   | ■                                                                                  | ■  | ■   | ■                                                                                   | ■  | ■   |
| 36                                                                                | 50 | 70 | 50                                                                                | 70 | 100 | 50                                                                                 | 70 | 100 | 50                                                                                  | 70 | 100 |
| 8                                                                                 | 10 | 20 | 10                                                                                | 15 | 30  | 10                                                                                 | 15 | 30  | 15                                                                                  | 20 | 30  |
| 20                                                                                | 36 | 55 | 36                                                                                | 50 | 75  | 36                                                                                 | 50 | 75  | 36                                                                                  | 50 | 75  |
| 5                                                                                 | 5  | 15 | 7.5                                                                               | 10 | 20  | 7.5                                                                                | 10 | 20  | 13                                                                                  | 15 | 20  |
| IEC/EN 60947-2                                                                    |    |    |                                                                                   |    |     |                                                                                    |    |     |                                                                                     |    |     |
| A                                                                                 |    |    |                                                                                   |    |     | A                                                                                  |    |     | A                                                                                   |    |     |
| ■                                                                                 |    |    | ■                                                                                 |    |     | ■                                                                                  |    |     | ■                                                                                   |    |     |
| Top Entry, Bottom Exit                                                            |    |    |                                                                                   |    |     |                                                                                    |    |     |                                                                                     |    |     |
| -35 °C to 70 °C                                                                   |    |    |                                                                                   |    |     |                                                                                    |    |     |                                                                                     |    |     |
| ≤ 50                                                                              |    |    | ≤100                                                                              |    |     | ≤100                                                                               |    |     | ≤100                                                                                |    |     |
| 20000                                                                             |    |    | 10000                                                                             |    |     | 10000                                                                              |    |     | 10000                                                                               |    |     |
| 40000                                                                             |    |    | 20000                                                                             |    |     | 20000                                                                              |    |     | 20000                                                                               |    |     |
| 10000                                                                             |    |    | 8000                                                                              |    |     | 8000                                                                               |    |     | 8000                                                                                |    |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
| ■                                                                                 | ■  |    | ■                                                                                 | ■  |     | ■                                                                                  | ■  |     | ■                                                                                   | ■  |     |
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## LDM7 Series

### Protection Characteristics

#### Distribution Protection — Magnetic Trip Unit

| Magnetic Trip Unit       | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Short-Circuit Protection Current Setting Method | Short-Circuit Protection Current Setting Value $I_i$ (A) and Tolerance | Short-Circuit Protection Single-Pole Operation Current Setting Value * | Trip Time |
|--------------------------|----------------------------------|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-----------|
| Short-Circuit Protection | 63                               | 10-63                   | Fixed                                           | $10 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $14 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              | < 0.2 s   |
|                          | 125                              | 80-125                  | Fixed                                           | $10 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $14 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              |           |
|                          | 160                              | 100-160                 | Fixed                                           | $10 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $14 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              |           |
|                          | 250                              | 180-250                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     | $14 I_n$                                                               |           |
|                          | 400                              | 250-400                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     | $14 I_n$                                                               |           |
|                          | 630                              | 400-630                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     | $14 I_n$                                                               |           |
|                          | W630                             | 400-630                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     | $14 I_n$                                                               |           |

\* Single-Pole Operation: The short-circuit trip unit shall trip at 120% of the short-circuit protection single-pole operating current setting value.

|                                              | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Short-Circuit Protection Current Setting Method | Short-Circuit Protection Current Setting Value $I_i$ (A) and Tolerance | Trip Time |
|----------------------------------------------|----------------------------------|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|-----------|
| Neutral Pole Protection (Four-Pole Code C/D) | 63                               | 10-63                   | Fixed                                           | $10 I_n, \pm 20\%$                                                     | < 0.2 s   |
|                                              | 125                              | 80-125                  | Fixed                                           | $10 I_n, \pm 20\%$                                                     |           |
|                                              | 160                              | 100-160                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     |           |
|                                              | 250                              | 180-250                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     |           |
|                                              | 400                              | 250-400                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     |           |
|                                              | 630                              | 400-630                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     |           |
|                                              | W630                             | 400-630                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     |           |

#### Distribution Protection — Thermal-Magnetic Trip Unit

| Thermal-Magnetic Trip Unit | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Overload Protection Current Setting Method  | Trip Characteristic                                                                                                                                                                               |
|----------------------------|----------------------------------|-------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overload Protection        | 63-W630                          | 10-630                  | Fixed                                       | $I^2t = \text{Constant}$<br>1.05 $I_n$ (Cold state), 2 h no trip ( $I_n > 63$ A), 1 h no trip ( $I_n \leq 63$ A)<br>1.3 $I_n$ ( Hot state), 2 h trip ( $I_n > 63$ A), 1 h trip ( $I_n \leq 63$ A) |
|                            | 160-W630                         | 100-630                 | Thermally adjustable and magnetically fixed | Adjustment range for $I_r$ : 0.7, 0.8, 0.9, 1.0 $I_n$                                                                                                                                             |

| Magnetic Trip Unit       | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Short-Circuit Protection Current Setting Method | Short-Circuit Protection Current Setting Value $I_i$ (A) and Tolerance | Short-Circuit Protection Single-Pole Operation Current Setting Value * | Trip Time |
|--------------------------|----------------------------------|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-----------|
| Short-Circuit Protection | 63                               | 10-63                   | Fixed                                           | $10 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $14 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              | < 0.2 s   |
|                          | 125                              | 80-125                  | Fixed                                           | $10 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $14 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              |           |
|                          | 160                              | 100-160                 | Fixed                                           | $10 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $14 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              |           |
|                          | 250                              | 180-250                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     | $14 I_n$                                                               |           |
|                          | 400                              | 250-400                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     | $14 I_n$                                                               |           |
|                          | 630                              | 400-630                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     | $14 I_n$                                                               |           |
|                          | W630                             | 400-630                 | Fixed                                           | $10 I_n, \pm 20\%$                                                     | $14 I_n$                                                               |           |

## LDM7 Series

### Motor Protection — Magnetic Trip Unit

| Magnetic Trip Unit       | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Short-Circuit Protection Current Setting Method | Short-Circuit Protection Current Setting Value $I_i$ (A) and Tolerance | Short-Circuit Protection Single-Pole Operation Current Setting Value * | Trip Time |
|--------------------------|----------------------------------|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-----------|
| Short-Circuit Protection | 63                               | 10-63                   | Fixed                                           | $12 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $17 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              | < 0.2 s   |
|                          | 125                              | 80-125                  | Fixed                                           | $12 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $17 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              |           |
|                          | 160                              | 100-160                 | Fixed                                           | $12 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $17 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              |           |
|                          | 250                              | 180-250                 | Fixed                                           | $12 I_n, \pm 20\%$                                                     | $17 I_n$                                                               |           |
|                          | 400                              | 250-400                 | Fixed                                           | $12 I_n, \pm 20\%$                                                     | $17 I_n$                                                               |           |
|                          | 630                              | 400-630                 | Fixed                                           | $12 I_n, \pm 20\%$                                                     | $17 I_n$                                                               |           |
|                          | W630                             | 400-630                 | Fixed                                           | $12 I_n, \pm 20\%$                                                     | $17 I_n$                                                               |           |

\* Single-Pole Operation: The short-circuit trip unit shall trip at 120% of the short-circuit protection single-pole operating current setting value.

|                                              | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Short-Circuit Protection Current Setting Method | Short-Circuit Protection Current Setting Value $I_i$ (A) and Tolerance |
|----------------------------------------------|----------------------------------|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|
| Neutral Pole Protection (Four-Pole Code C/D) | 63                               | 10-63                   | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |
|                                              | 125                              | 80-125                  | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |
|                                              | 160                              | 100-160                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |
|                                              | 250                              | 180-250                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |
|                                              | 400                              | 250-400                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |
|                                              | 630                              | 400-630                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |
|                                              | W630                             | 400-630                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |

### Motor Protection — Thermal-Magnetic Trip Unit

| Thermal-Magnetic Trip Unit | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Overload Protection Current Setting Method  | Trip Characteristic                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------|----------------------------------|-------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overload Protection        | 63-W630                          | 10-630                  | Fixed                                       | $I^2 t = \text{Constant}$<br>1.0 $I_n$ (Cold state), > 2 h no trip<br>1.2 $I_n$ (Hot state), < 2 h trip<br>1.5 $I_n, \leq 2$ min ( $10$ A $\leq I_n \leq 25$ A), $\leq 4$ min ( $25$ A, $I_n \leq 250$ A), $\leq 8$ min ( $250$ A, $I_n \leq 800$ A)<br>7.2 $I_n, 0.5$ s $\leq T_p \leq 5$ s ( $10$ A $\leq I_n \leq 25$ A), $4$ s $\leq T_p \leq 10$ s ( $25$ A, $I_n \leq 250$ A), $6$ s $\leq T_p \leq 20$ s ( $250$ A, $I_n \leq 800$ A) |
|                            | 160-W630                         | 100-630                 | Thermally adjustable and magnetically fixed | Adjustment range for $I_r$ : 0.7, 0.8, 0.9, 1.0 $I_n$                                                                                                                                                                                                                                                                                                                                                                                        |

| Magnetic Trip Unit       | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Short-Circuit Protection Current Setting Method | Short-Circuit Protection Current Setting Value $I_i$ (A) and Tolerance | Short-Circuit Protection Single-Pole Operation Current Setting Value * | Trip Time |
|--------------------------|----------------------------------|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-----------|
| Short-Circuit Protection | 63                               | 10-63                   | Fixed                                           | $12 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $17 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              | < 0.2 s   |
|                          | 125                              | 80-125                  | Fixed                                           | $12 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $17 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              |           |
|                          | 160                              | 100-160                 | Fixed                                           | $12 I_n, \pm 20\%$ ; $I_n \leq 40$ A, $I_i = 500$ A                    | $17 I_n$ ; $I_n \leq 40$ A, $I_i = 600$ A                              |           |
|                          | 250                              | 180-250                 | Fixed                                           | $12 I_n, \pm 20\%$                                                     | $17 I_n$                                                               |           |
|                          | 400                              | 250-400                 | Fixed                                           | $12 I_n, \pm 20\%$                                                     | $17 I_n$                                                               |           |
|                          | 630                              | 400-630                 | Fixed                                           | $12 I_n, \pm 20\%$                                                     | $17 I_n$                                                               |           |
|                          | W630                             | 400-630                 | Fixed                                           | $12 I_n, \pm 20\%$                                                     | $17 I_n$                                                               |           |

## LDM7 Series

### Generator Protection — Magnetic Trip Unit

| Magnetic Trip Unit       | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Short-Circuit Protection Current Setting Method | Short-Circuit Protection Current Setting Value $I_i$ (A) and Tolerance | Short-Circuit Protection Single-Pole Operation Current Setting Value * | Trip Time |
|--------------------------|----------------------------------|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-----------|
| Short-Circuit Protection | 63                               | 10-63                   | Fixed                                           | $5 I_n, \pm 20\%$ ( $I_n \leq 40$ A, not applicable)                   | $7 I_n$                                                                | < 0.2 s   |
|                          | 125                              | 80-125                  | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | 160                              | 100-160                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | 250                              | 180-250                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | 400                              | 250-400                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | 630                              | 400-630                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | W630                             | 400-630                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |

\* Single-Pole Operation: The short-circuit trip unit shall trip at 120% of the short-circuit protection single-pole operating current setting value.

|                                              | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Short-Circuit Protection Current Setting Method | Short-Circuit Protection Current Setting Value $I_i$ (A) and Tolerance | Trip Time |
|----------------------------------------------|----------------------------------|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|-----------|
| Neutral Pole Protection (Four-Pole Code C/D) | 63                               | 10-63                   | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   | < 0.2 s   |
|                                              | 125                              | 80-125                  | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |           |
|                                              | 160                              | 100-160                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |           |
|                                              | 250                              | 180-250                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |           |
|                                              | 400                              | 250-400                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |           |
|                                              | 630                              | 400-630                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |           |
|                                              | W630                             | 400-630                 | Fixed                                           | $I_n, I_i, \pm 20\%$                                                   |           |

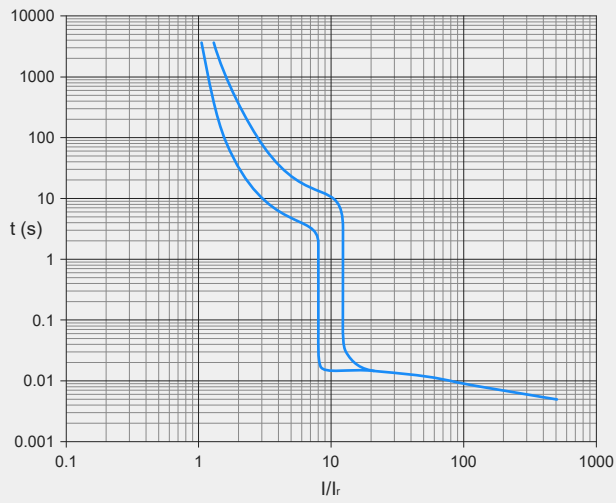
### Generator Protection — Thermal-Magnetic Trip Unit

| Thermal-Magnetic Trip Unit | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Overload Protection Current Setting Method  | Trip Characteristic                                                                                                                                                   |
|----------------------------|----------------------------------|-------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overload Protection        | 63-W630                          | 10-630                  | Fixed                                       | $I^2t = \text{Constant}$                                                                                                                                              |
|                            | 160-W630                         | 100-630                 | Thermally adjustable and magnetically fixed | $1.05 I_n$ (Cold state), 2 h no trip ( $I_n > 63$ A), 1 h no trip ( $I_n \leq 63$ A)<br>$1.3 I_n$ ( Hot state), 2 h trip ( $I_n > 63$ A), 1 h trip ( $I_n \leq 63$ A) |

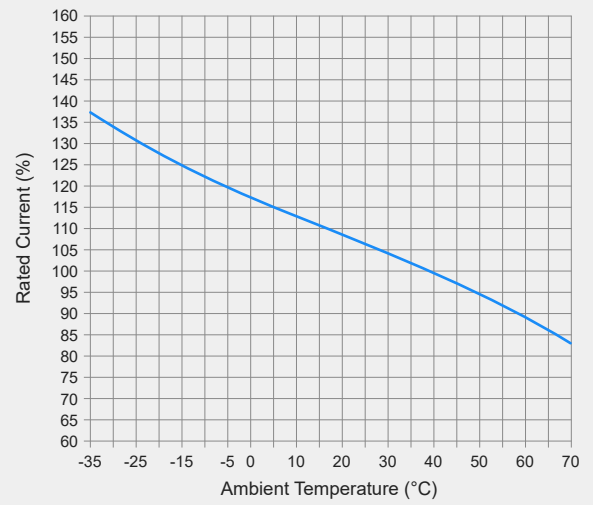
| Magnetic Trip Unit       | Rated Frame Current $I_{nm}$ (A) | Rated Current $I_n$ (A) | Short-Circuit Protection Current Setting Method | Short-Circuit Protection Current Setting Value $I_i$ (A) and Tolerance | Short-Circuit Protection Single-Pole Operation Current Setting Value * | Trip Time |
|--------------------------|----------------------------------|-------------------------|-------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-----------|
| Short-Circuit Protection | 63                               | 10-63                   | Fixed                                           | $5 I_n, \pm 20\%$ ( $I_n \leq 40$ A, not applicable)                   | $7 I_n$                                                                | < 0.2 s   |
|                          | 125                              | 80-125                  | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | 160                              | 100-160                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | 250                              | 180-250                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | 400                              | 250-400                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | 630                              | 400-630                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |
|                          | W630                             | 400-630                 | Fixed                                           | $5 I_n, \pm 20\%$                                                      | $7 I_n$                                                                |           |

## LDM7 Series

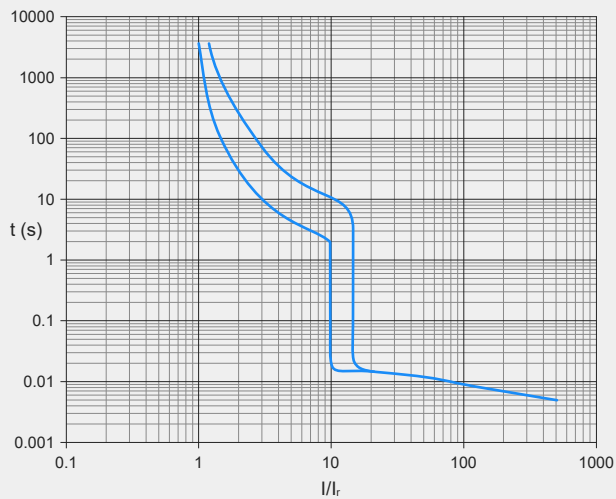
LDM7-63, 125 (10-63 A) Distribution Protection Trip Curve



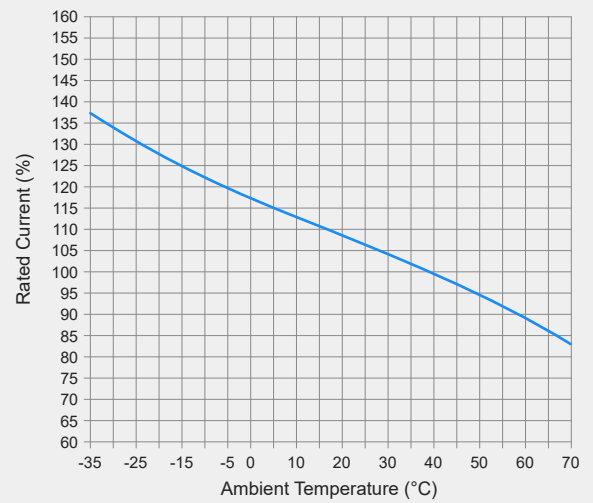
LDM7-63, 125 (10-63 A) Temperature Compensation Curve



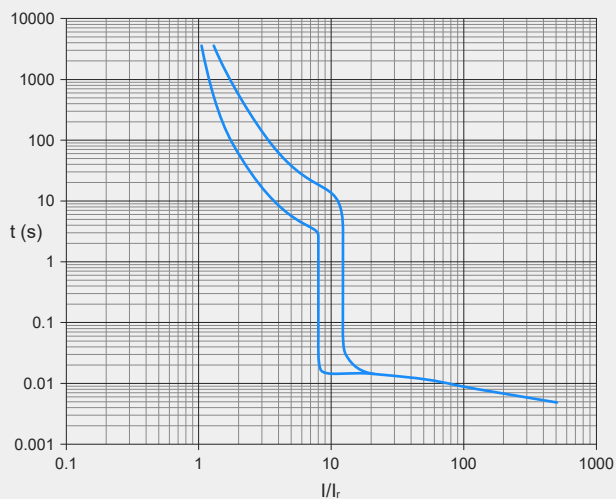
LDM7-63, 125 (10-63 A) Motor Protection Trip Curve



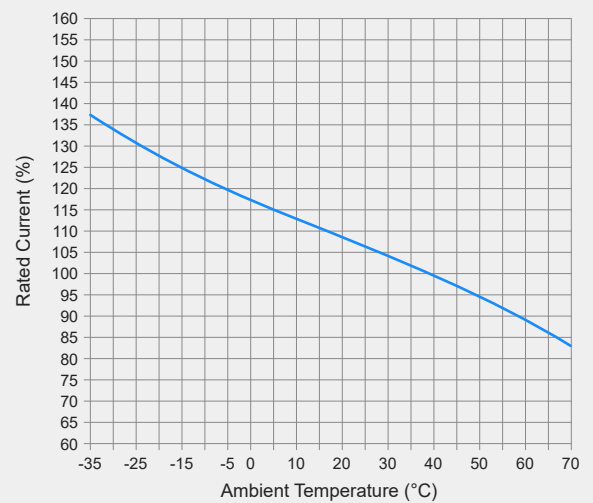
LDM7-63, 125 (10-63 A) Temperature Compensation Curve



LDM7-63, 125 (63-125 A) Distribution Protection Trip Curve



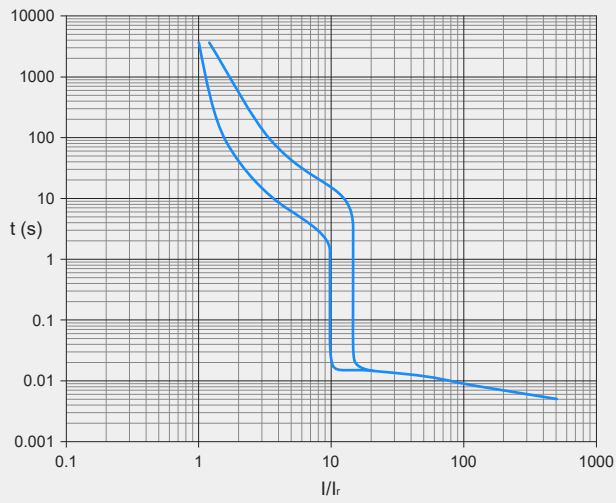
LDM7-63, 125 (63-125 A) Temperature Compensation Curve



## LDM7 Series

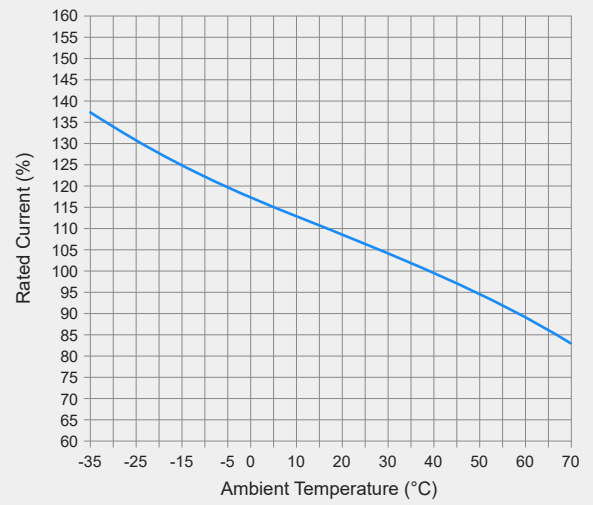
LDM7-63, 125 (63-125 A)

Motor Protection Trip Curve



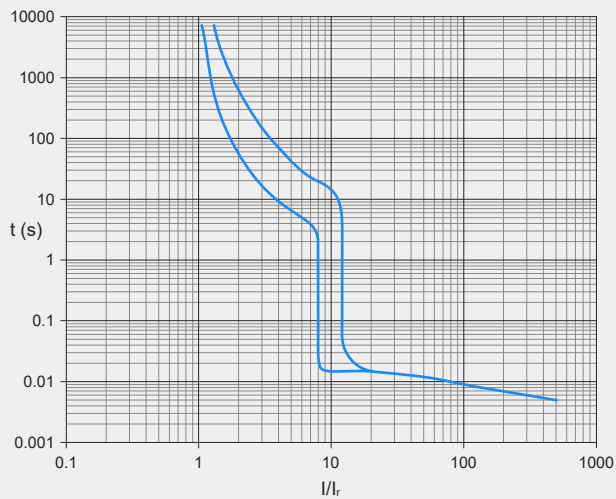
LDM7-63, 125 (63-125 A)

Temperature Compensation Curve



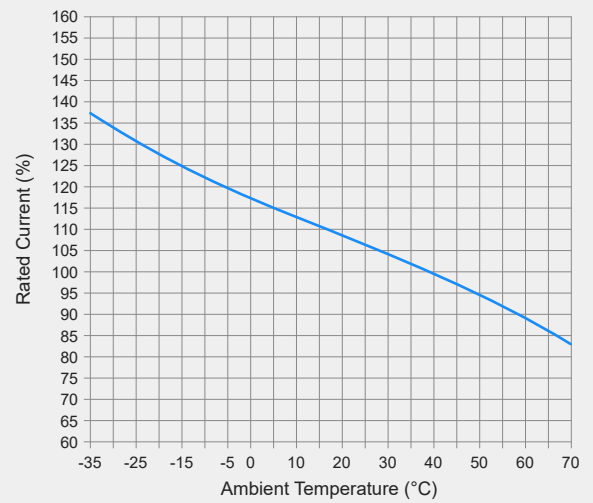
LDM7-63, 125 (> 125 A)

Distribution Protection Trip Curve



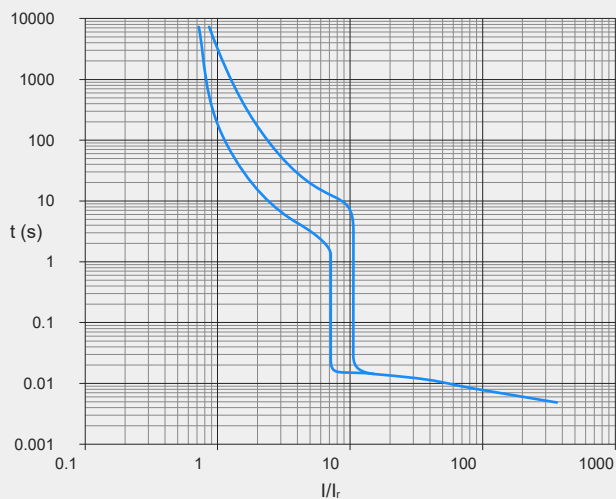
LDM7-63, 125 (> 125 A)

Temperature Compensation Curve



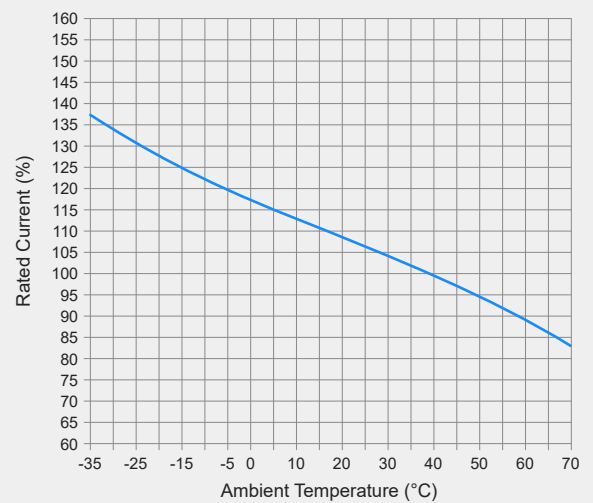
LDM7-63, 125 (> 125 A)

Motor Protection Trip Curve



LDM7-63, 125 (> 125 A)

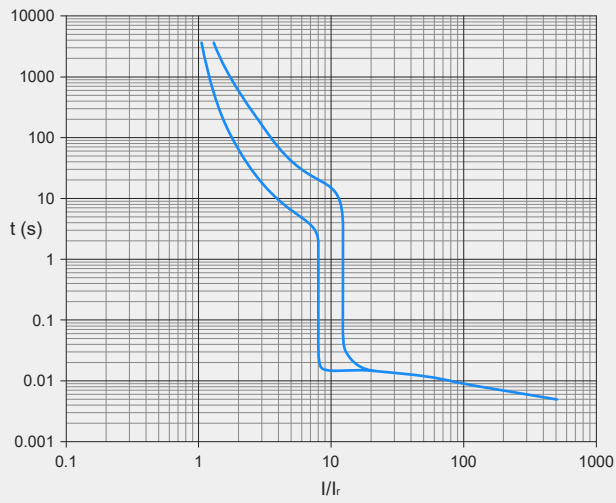
Temperature Compensation Curve



## LDM7 Series

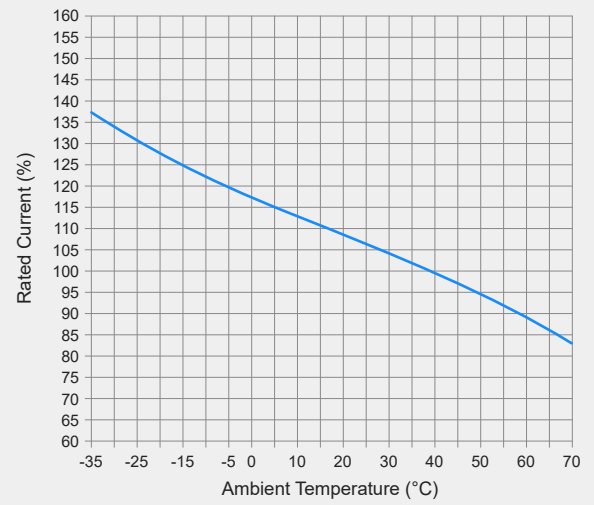
LDM7-160 (100-160 A)

Distribution Protection Trip Curve



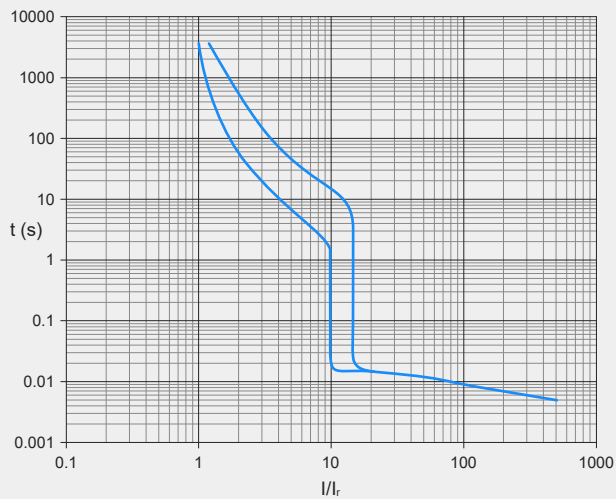
LDM7-160 (100-160 A)

Temperature Compensation Curve



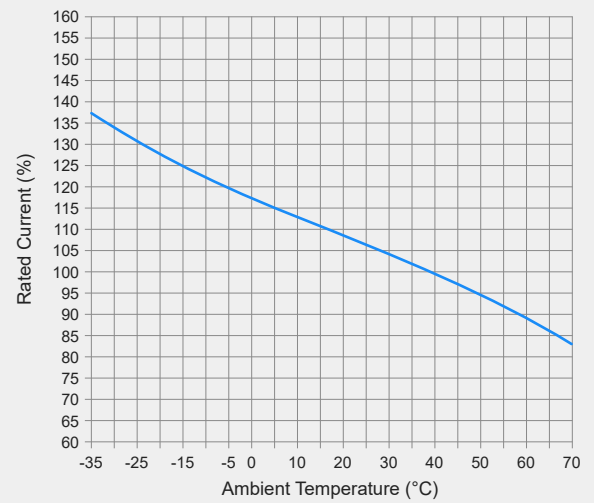
LDM7-160 (100-160 A)

Motor Protection Trip Curve



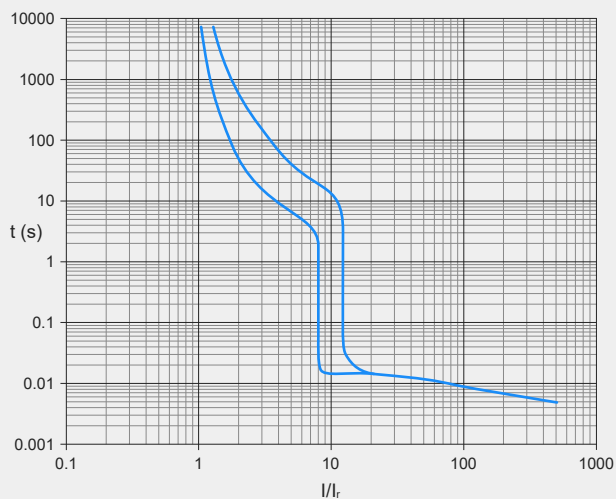
LDM7-160 (100-160 A)

Temperature Compensation Curve



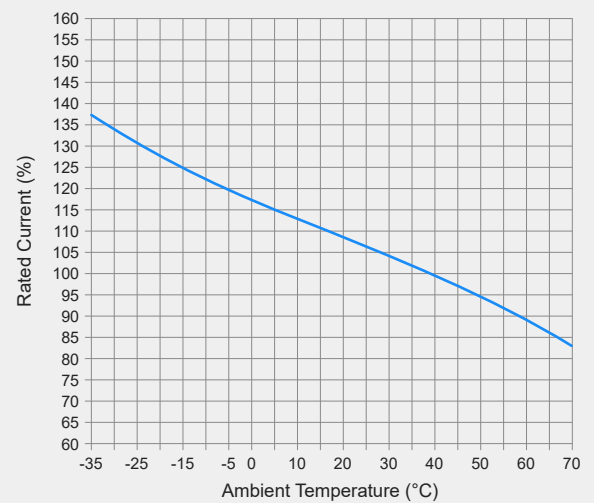
LDM7-160 (> 160 A)

Distribution Protection Trip Curve



LDM7-160 (> 160 A)

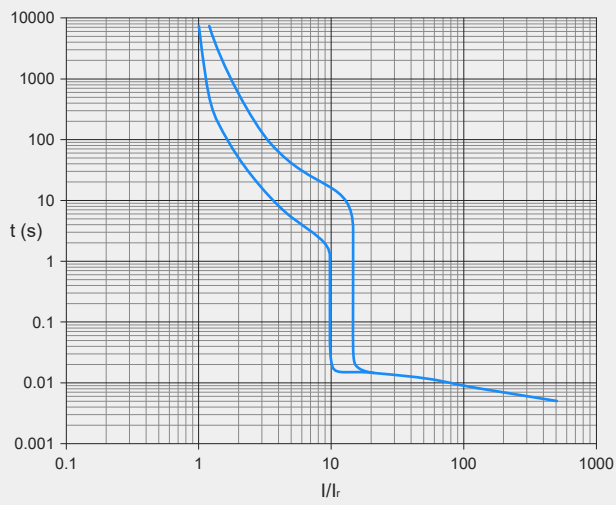
Temperature Compensation Curve



## LDM7 Series

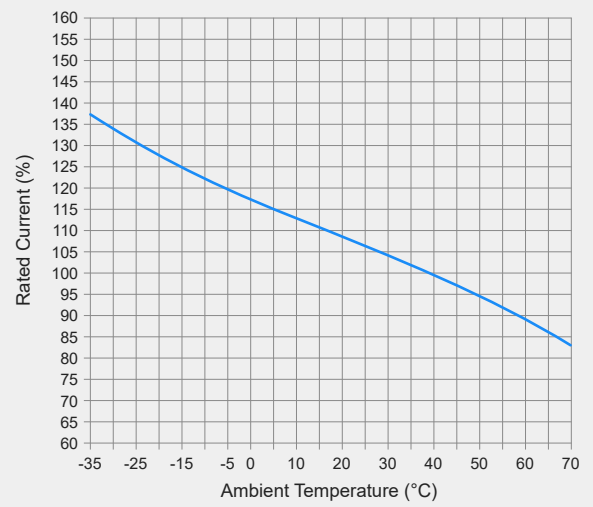
LDM7-160 (> 160 A)

Motor Protection Trip Curve



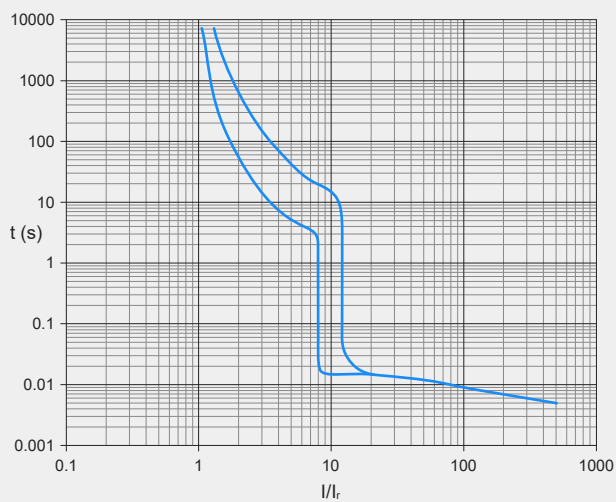
LDM7-160 (> 160 A)

Temperature Compensation Curve



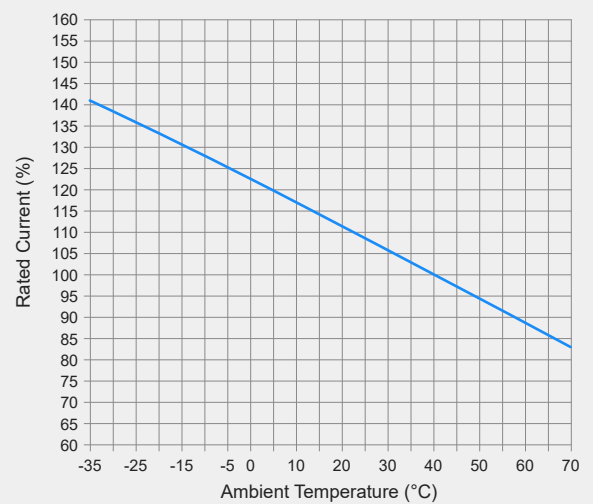
LDM7-250

Distribution Protection Trip Curve



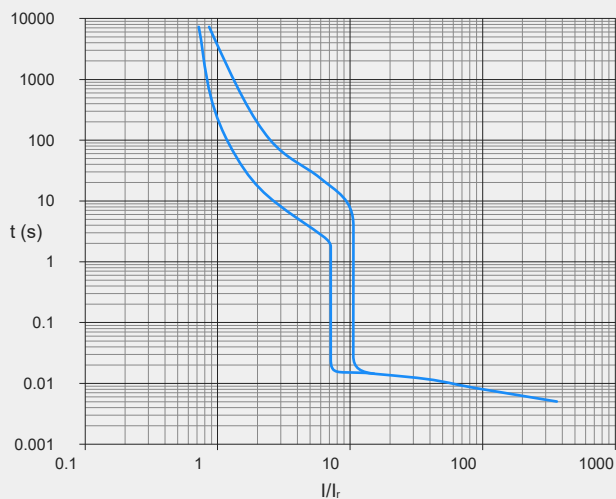
LDM7-250

Temperature Compensation Curve



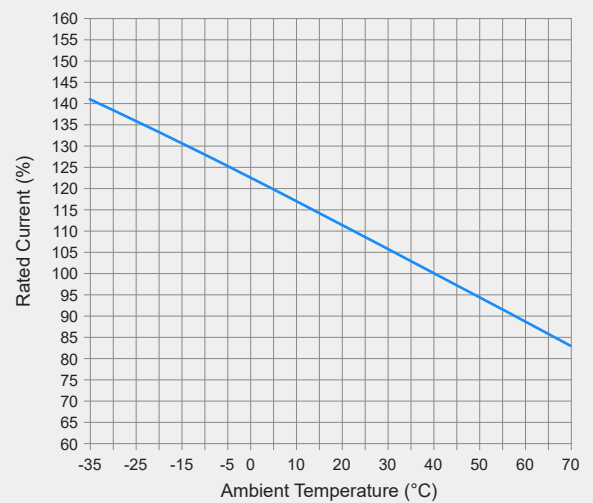
LDM7-250

Motor Protection Trip Curve



LDM7-250

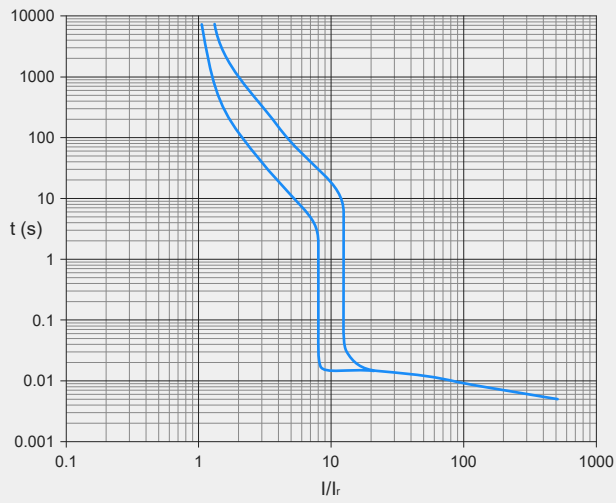
Temperature Compensation Curve



## LDM7 Series

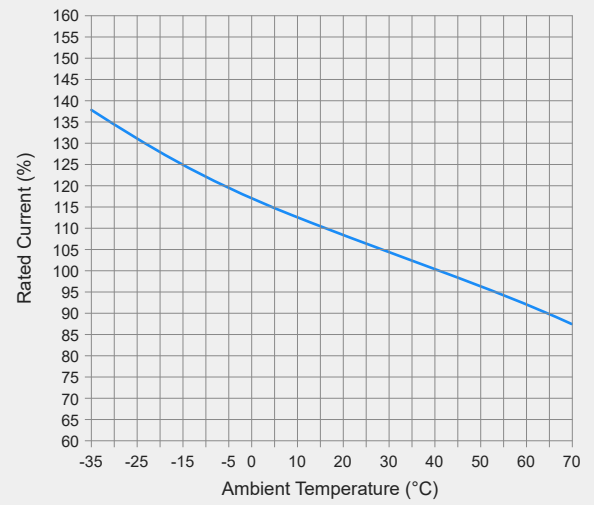
LDM7-400, 630

Distribution Protection Trip Curve



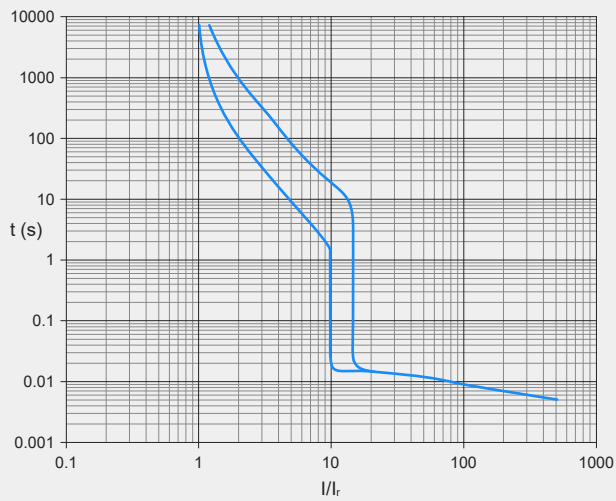
LDM7-400, 630

Temperature Compensation Curve



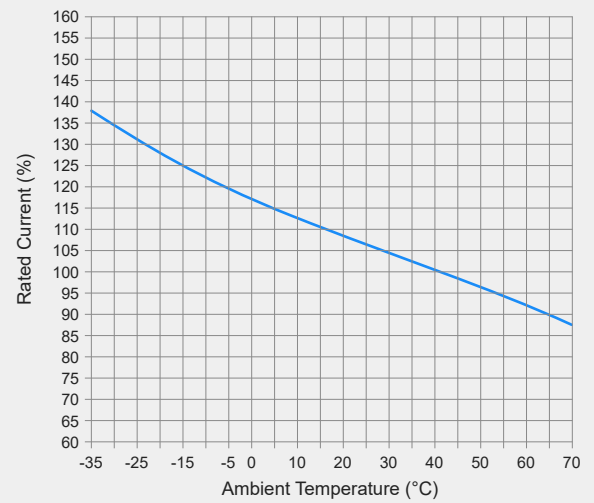
LDM7-400, 630

Motor Protection Trip Curve



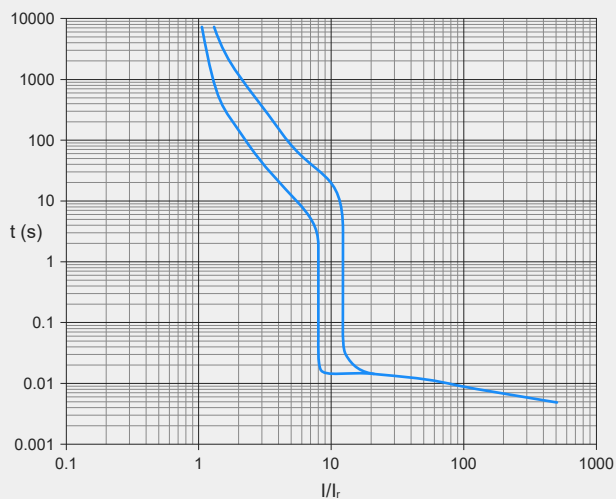
LDM7-400, 630

Temperature Compensation Curve



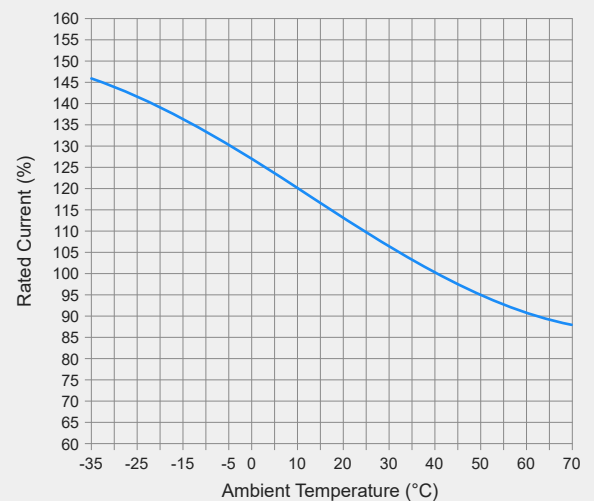
LDM7-W630

Distribution Protection Trip Curve



LDM7-W630

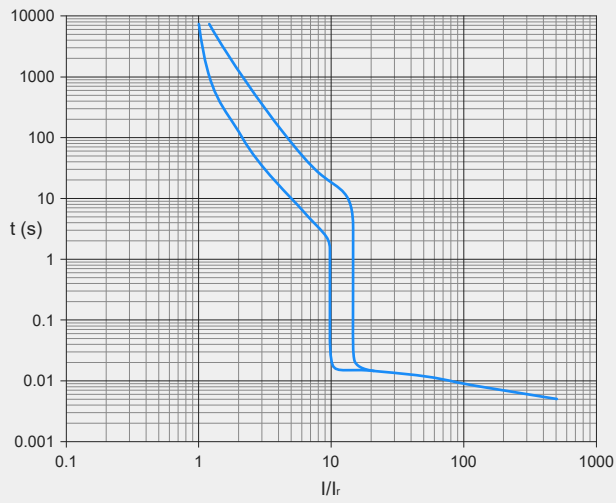
Temperature Compensation Curve



## LDM7 Series

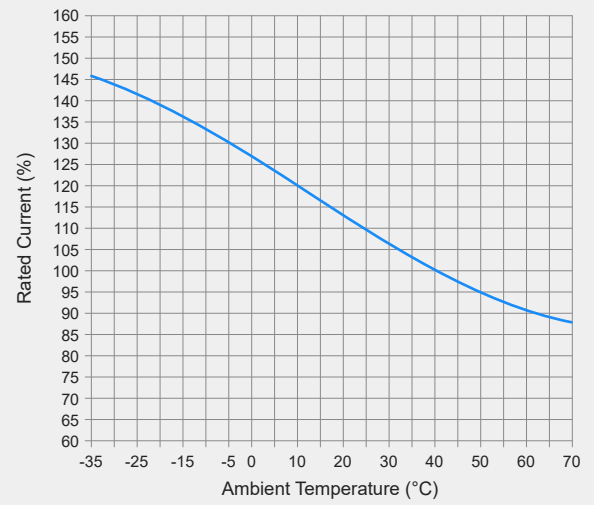
LDM7-W630

Motor Protection Trip Curve



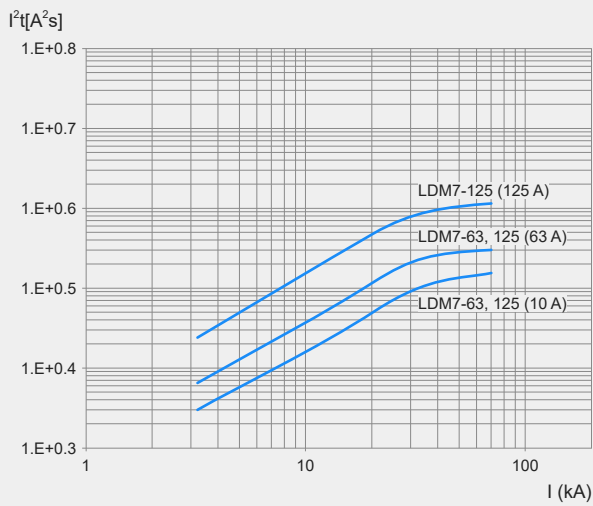
LDM7-W630

Temperature Compensation Curve



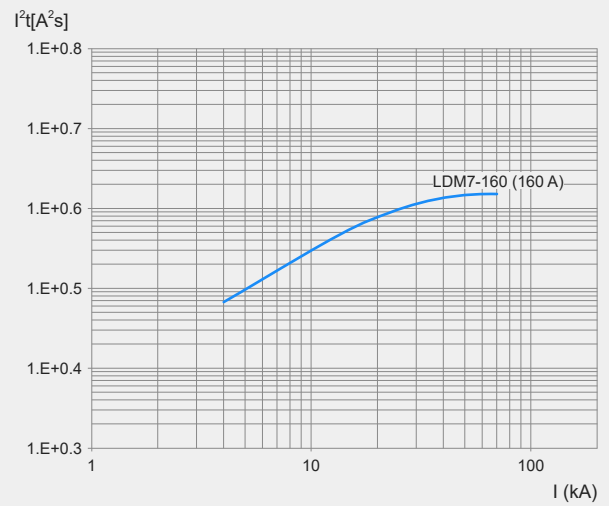
LDM7-63, 125

Let-through Curve



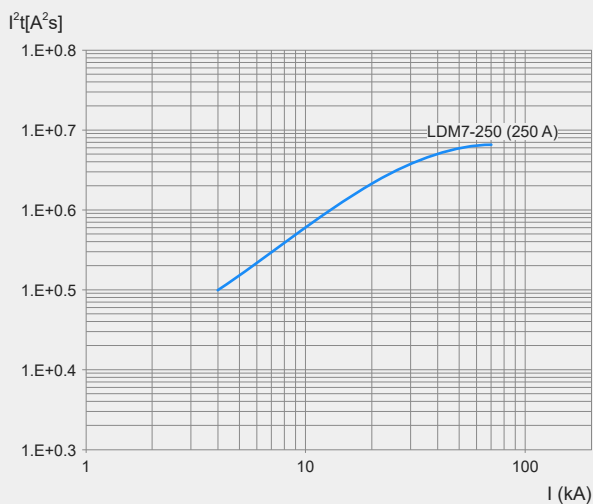
LDM7-160

Let-through Curve



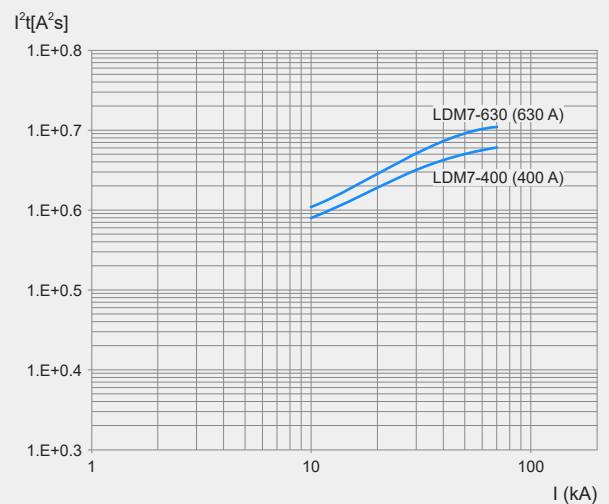
LDM7-250

Let-through Curve

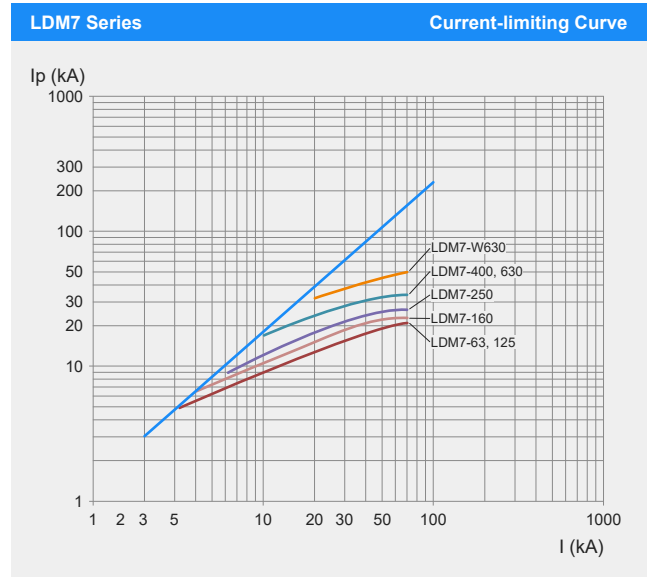
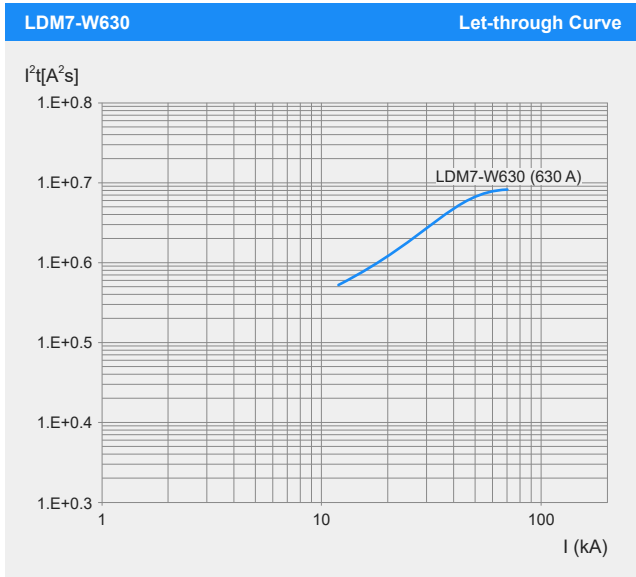


LDM7-400, 630

Let-through Curve



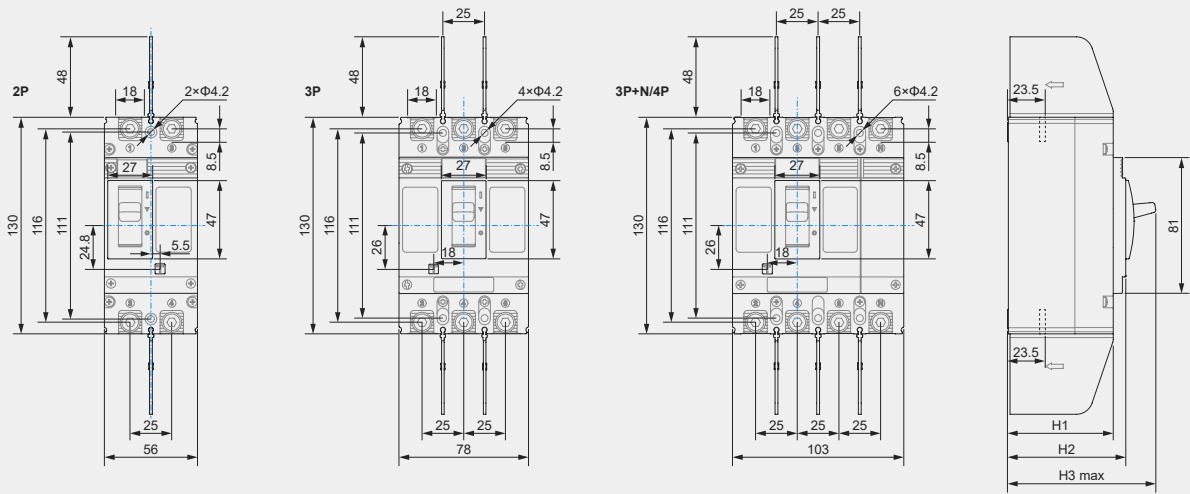
## LDM7 Series



## Dimensions

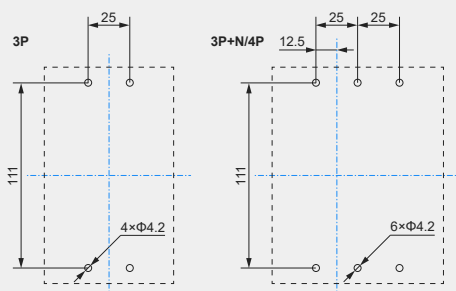
### LDM7-63/125 Installation Dimensions

#### Outline Dimensions (Front Connection)

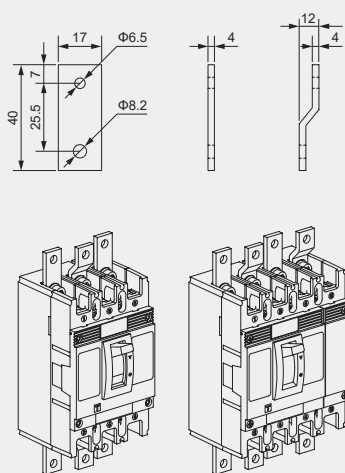


| Model                     | H1   | H2 | H3 max |
|---------------------------|------|----|--------|
| LDM7-63L, 125L            | 63.5 | 71 | 88     |
| LDM7-63M, 63H, 125M, 125H | 73.5 | 81 | 98     |

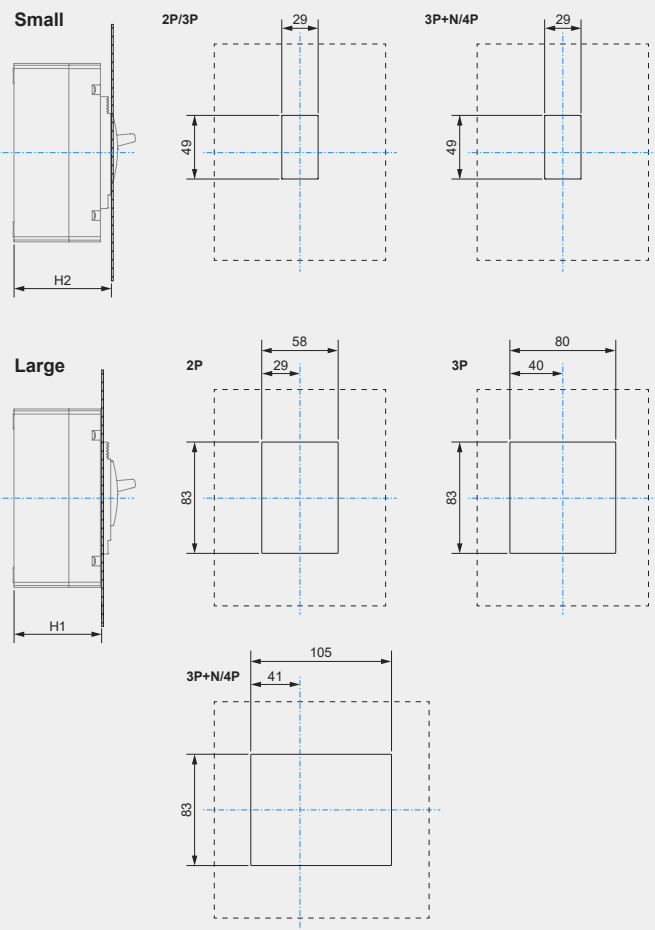
#### Installation Dimensions (Front Connection)



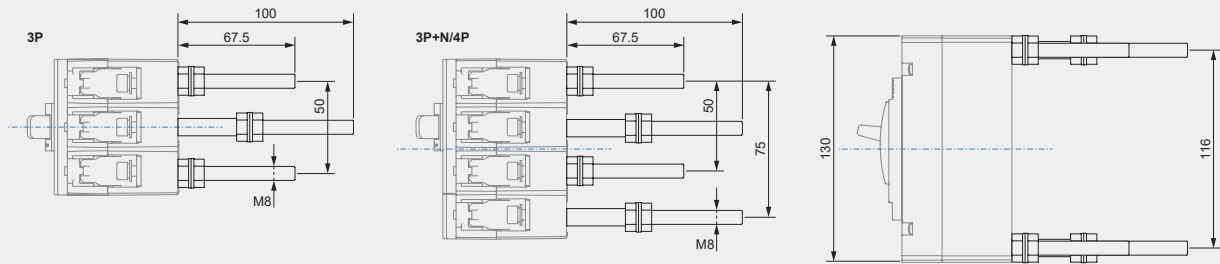
#### Outline Dimensions (Connection Plate)



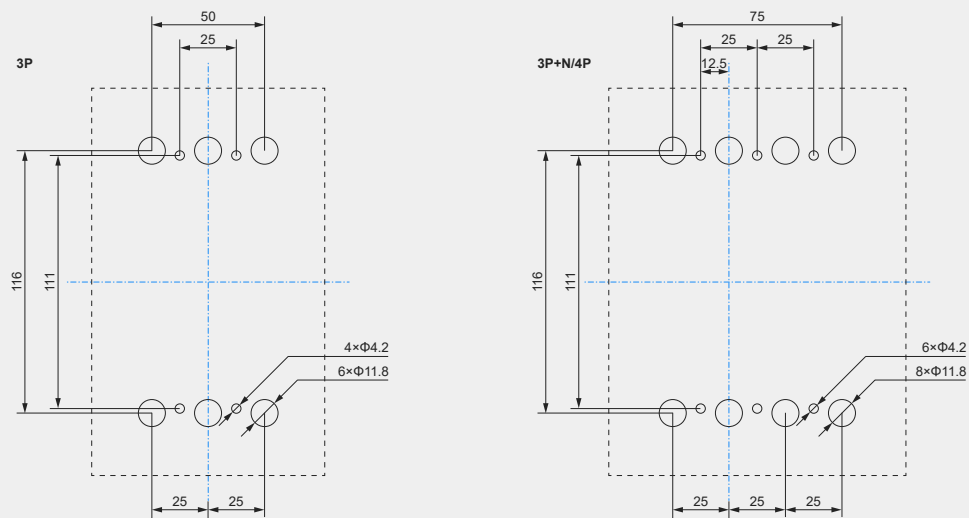
#### Cutout Dimensions (Cabinet Door)



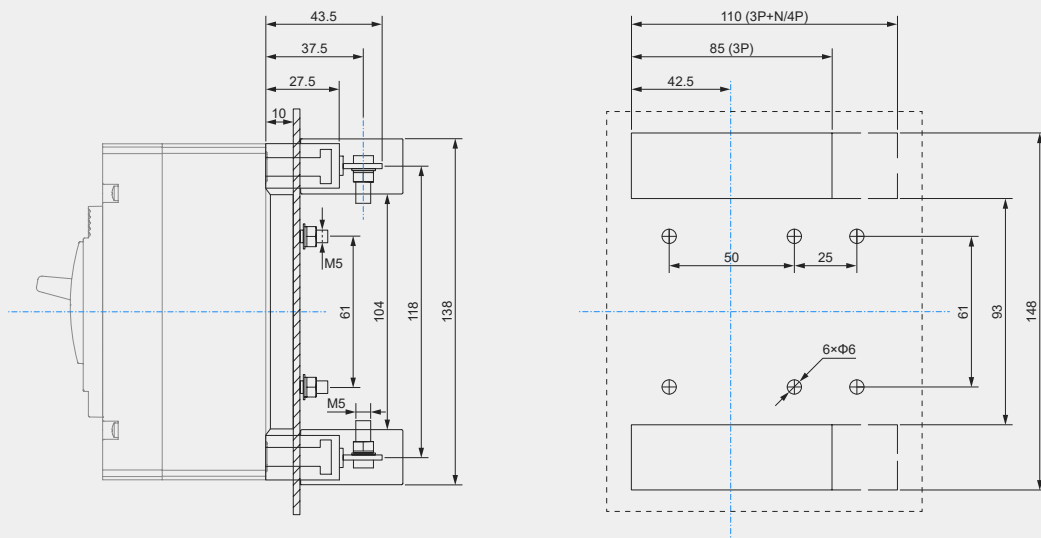
### Outline Dimensions (Rear Connection)



### Installation Dimensions (Rear Connection)

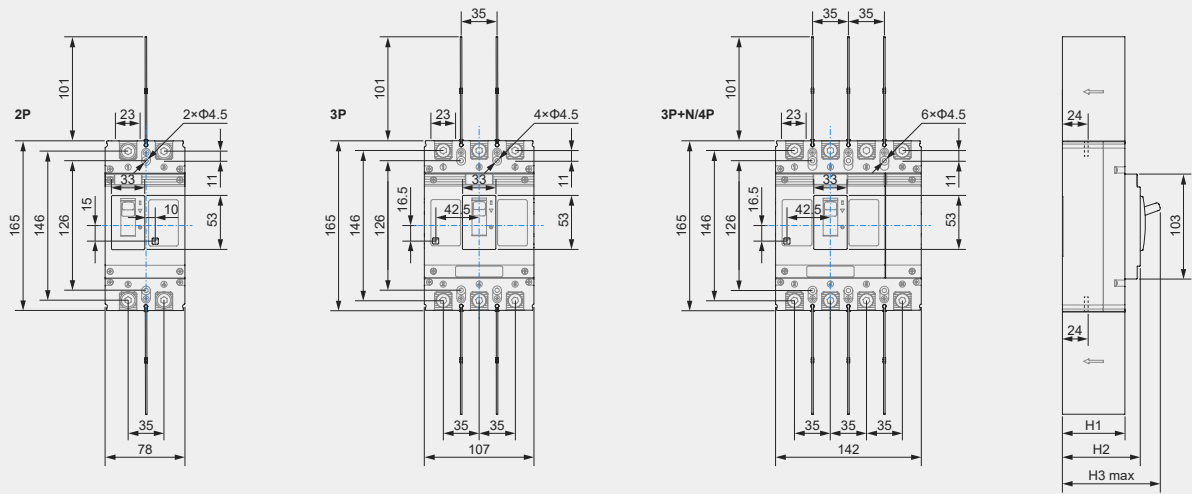


### Outline and Installation Dimensions (Plug-in Rear Connected)



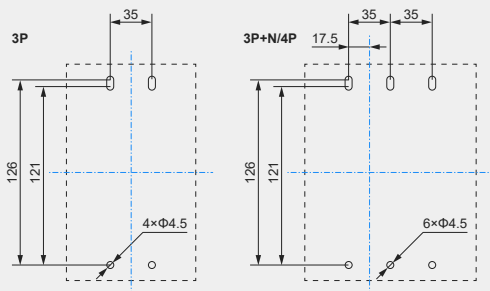
LDM7-160/250 Installation Dimensions

Outline Dimensions (Front Connection)

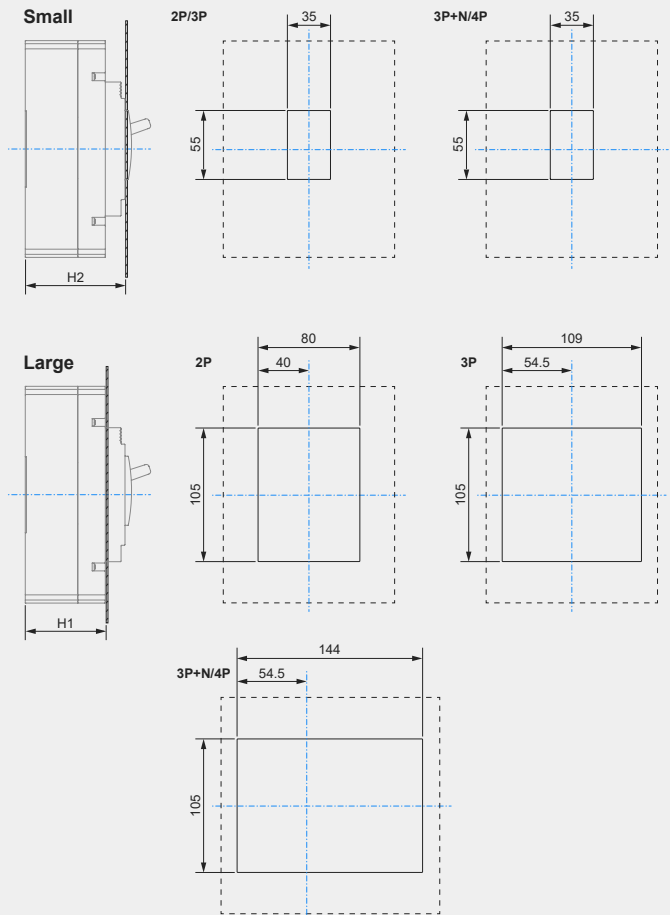


| Model                       | H1   | H2 | H3 max |
|-----------------------------|------|----|--------|
| LDM7-160L, 250L             | 61.5 | 77 | 99     |
| LDM7-160M, 160H, 250M, 250H | 71.5 | 87 | 109    |

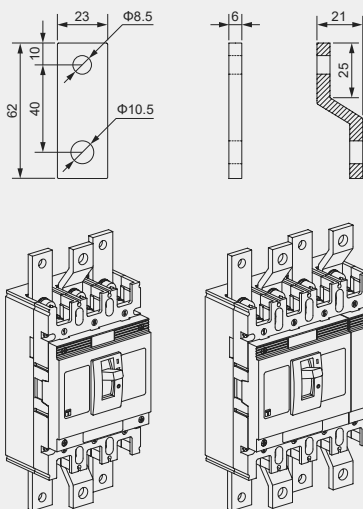
Installation Dimensions (Front Connection)



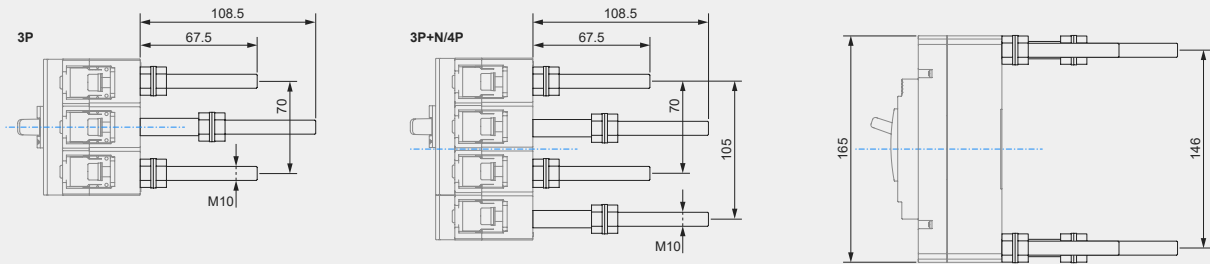
Cutout Dimensions (Cabinet Door)



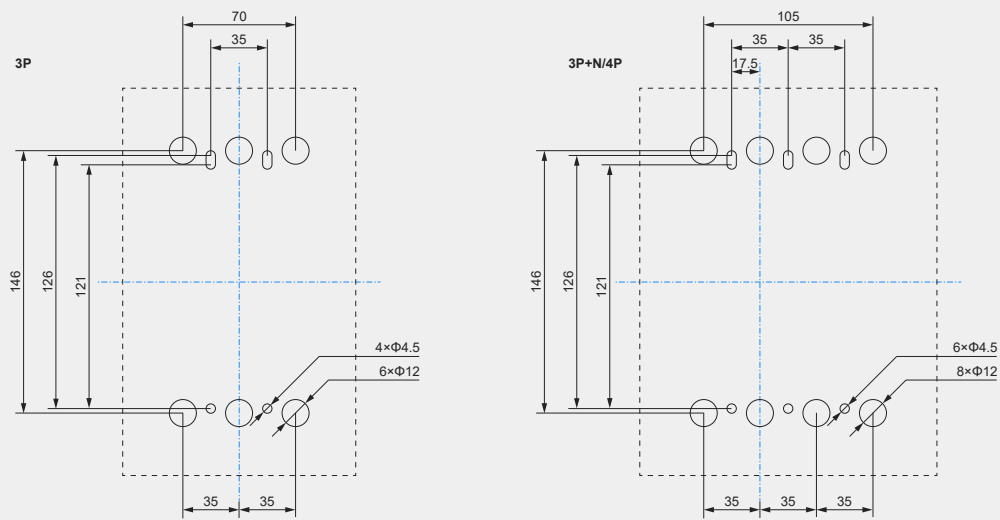
Outline Dimensions (Connection Plate)



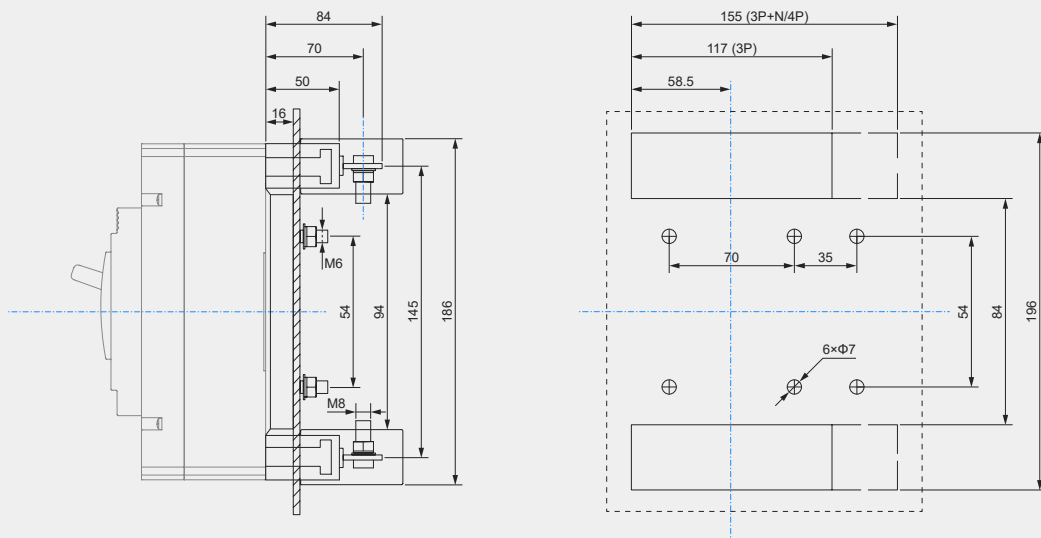
### Outline Dimensions (Rear Connection)



### Installation Dimensions (Rear Connection)

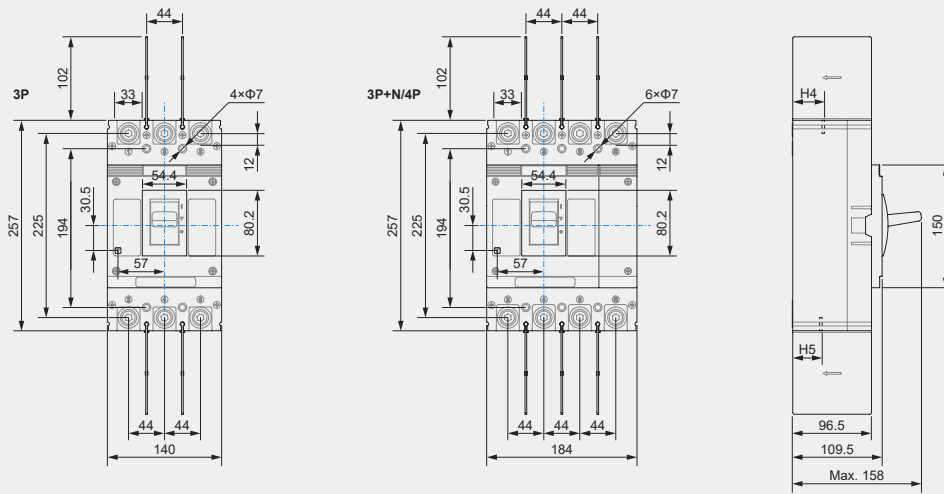


### Outline and Installation Dimensions (Plug-in Rear Connected)



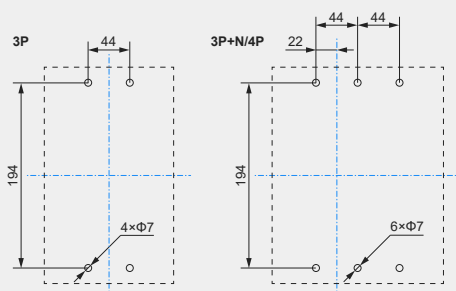
LDM7-400/630 Installation Dimensions

Outline Dimensions (Front Connection)

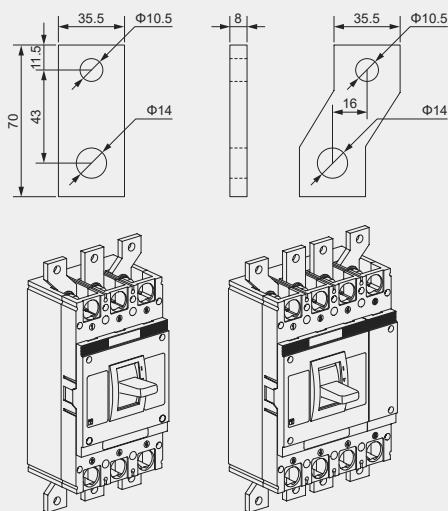


| Model                 | H4 | H5   |
|-----------------------|----|------|
| LDM7-400L, 400M, 400H | 39 | 37.5 |
| LDM7-630L, 630M, 630H | 41 | 40   |

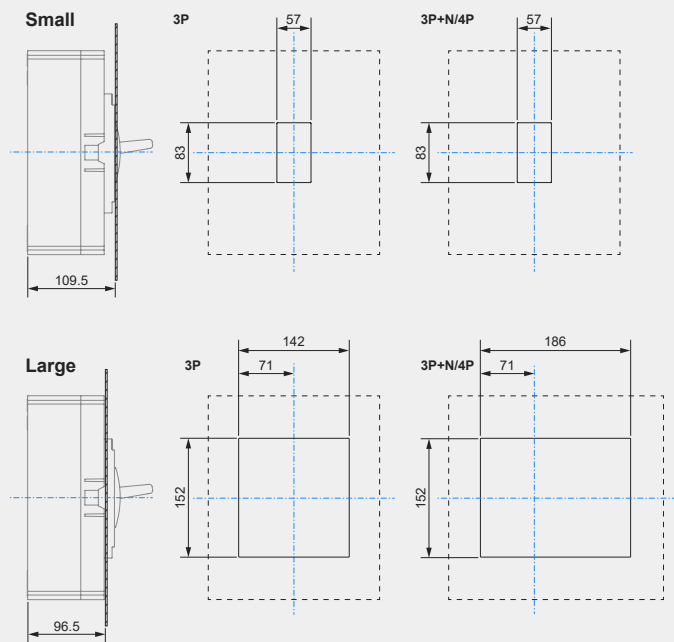
Installation Dimensions (Front Connection)



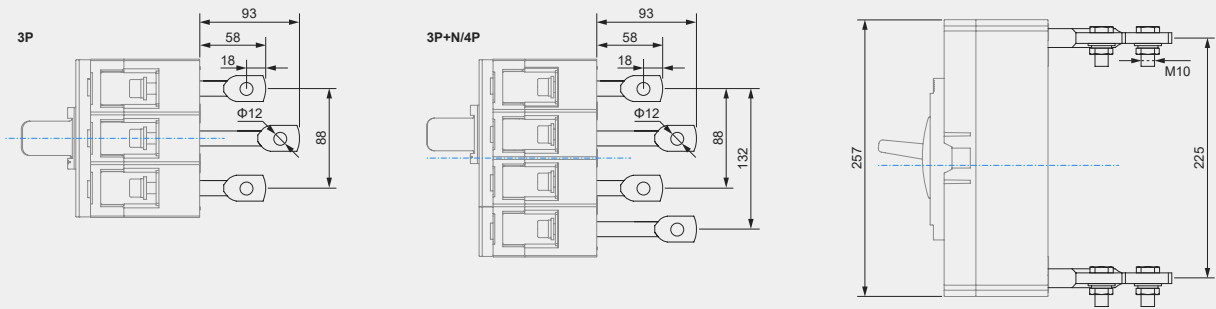
Outline Dimensions (Connection Plate)



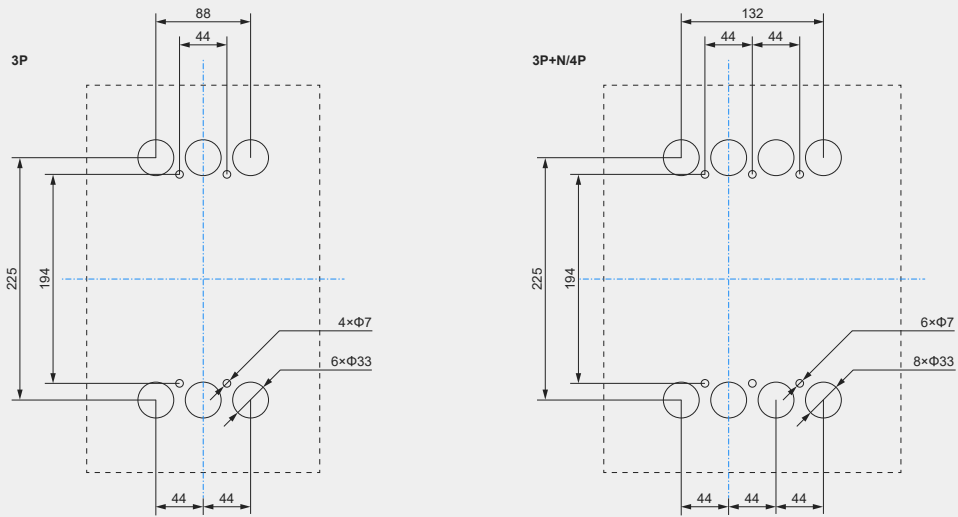
Cutout Dimensions (Cabinet Door)



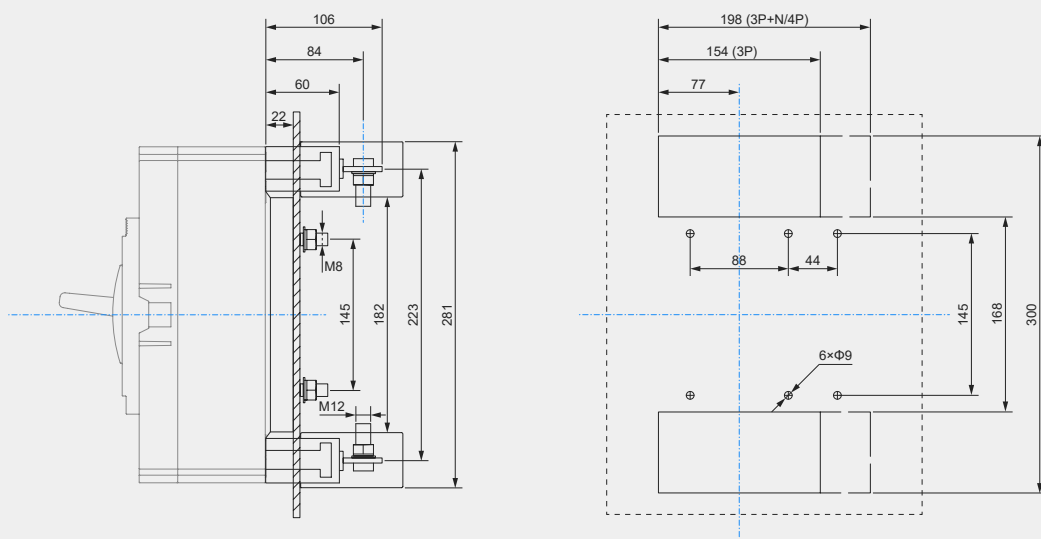
Outline Dimensions (Rear Connection)



Installation Dimensions (Rear Connection)

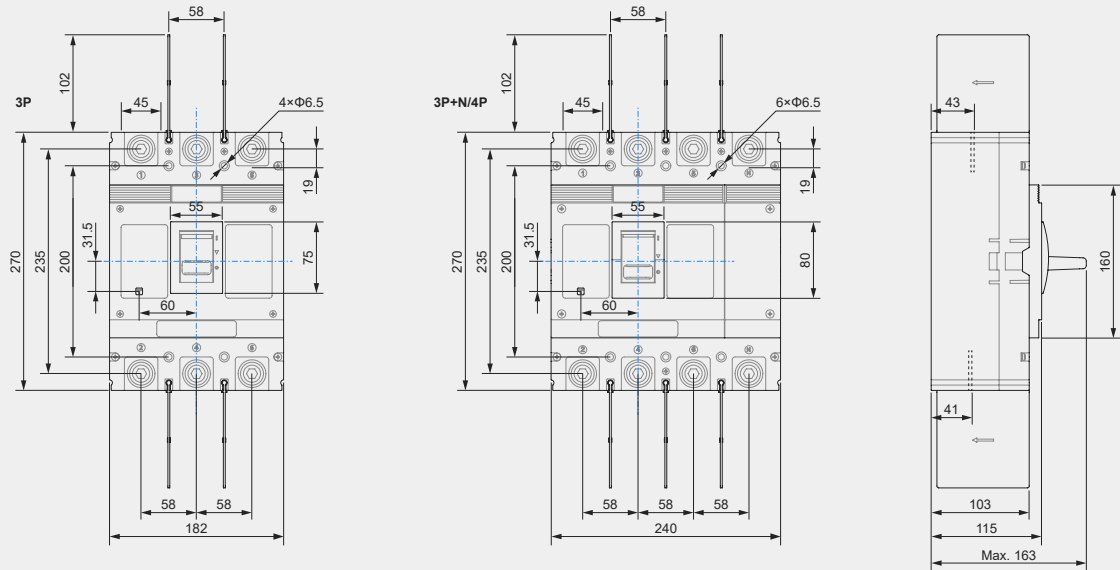


Outline and Installation Dimensions (Plug-in Rear Connected)

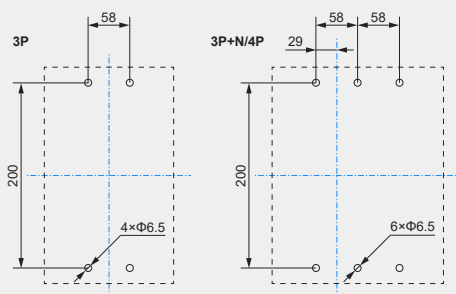


LDM7-W630 Installation Dimensions

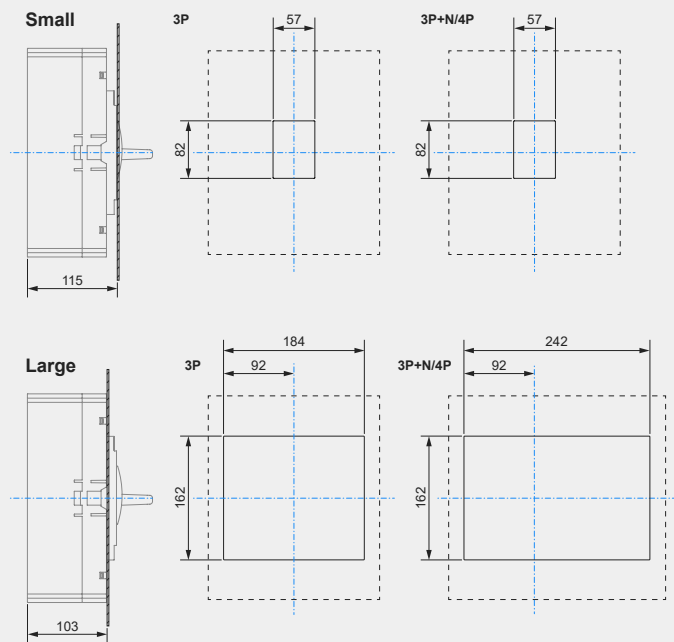
Outline Dimensions (Front Connection)



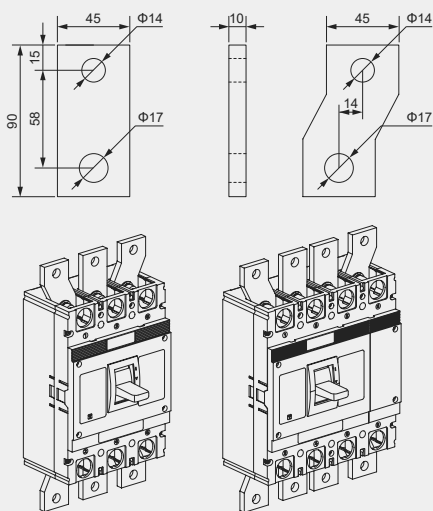
Installation Dimensions (Front Connection)



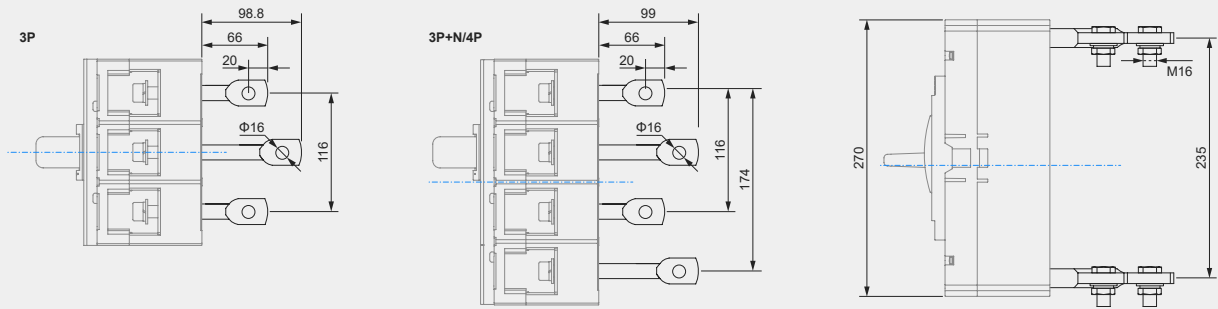
Cutout Dimensions (Cabinet Door)



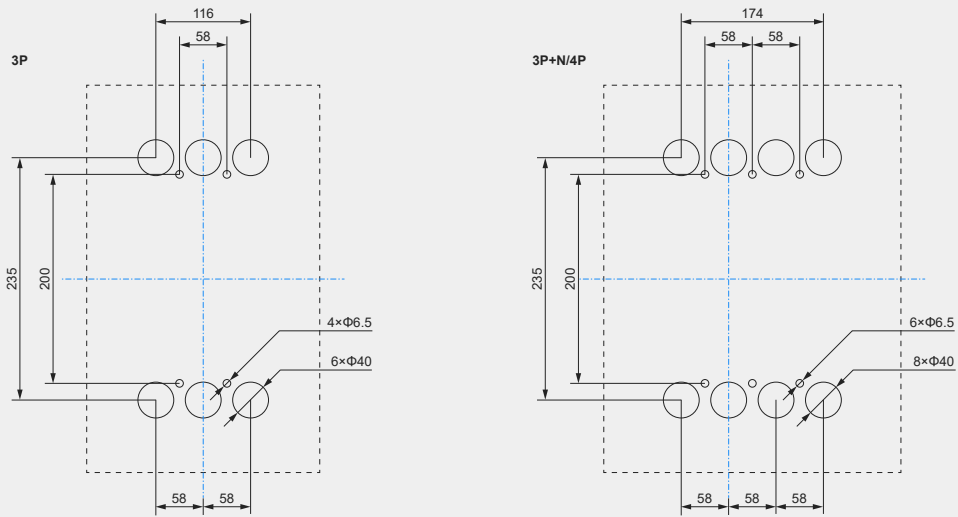
Outline Dimensions (Connection Plate)



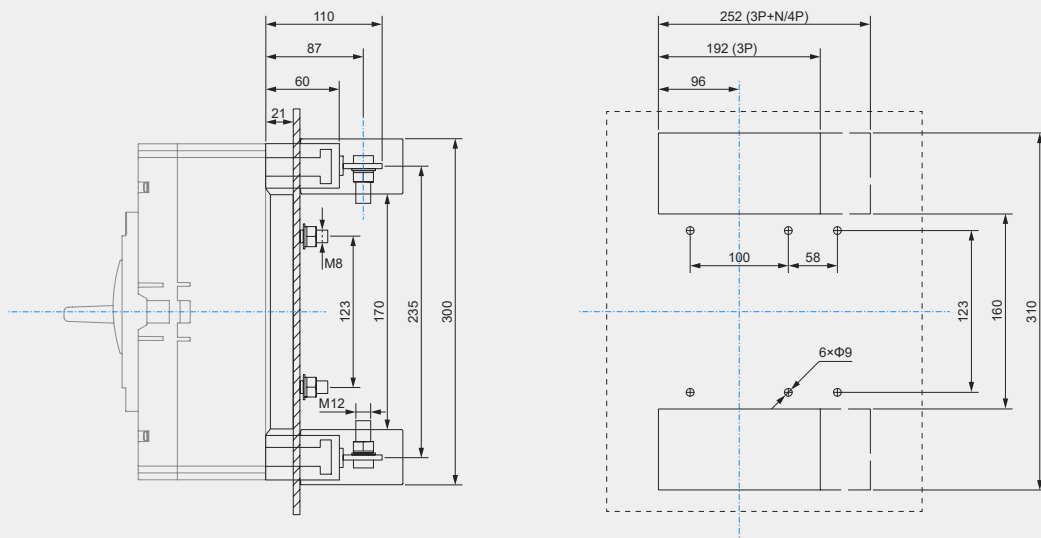
### Outline Dimensions (Rear Connection)



### Installation Dimensions (Rear Connection)



### Outline and Installation Dimensions (Plug-in Rear Connected)



## Accessories

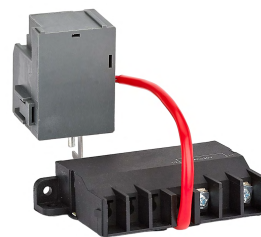
### Accessories for Electrical Applications



LDM7 Series Main Body



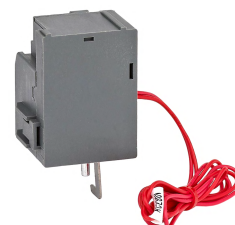
Auxiliary Contacts (Optional)



Under-voltage Release (Optional)



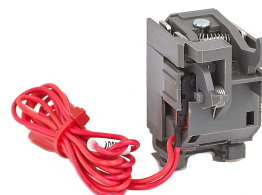
Alarm Contacts (Optional)



Shunt Release (Optional)



Auxiliary and Alarm Contacts (Optional)

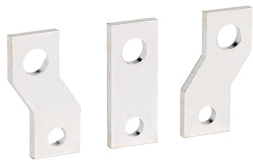


Prepaid Meter Dedicated Release (Optional)



Alarm Contacts (Optional)

## Accessories



Front Connection Plate (Optional)



Plug-in Type (Optional)



Rear Connection (Optional)



Manual Operating Mechanism (Optional)



Motor Operating Mechanism (Optional)



Phase Barriers (Standard)

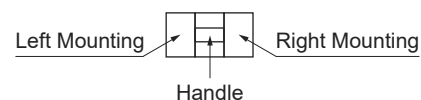


Alarm Contacts (Optional)

## Internal Accessories

### LDM7 Series Molded Case Circuit Breaker Internal Accessory Codes

- ☐ Alarm Contacts   
 ☒ Auxiliary Contacts (1NO1NC)   
 ☒ Auxiliary Contacts (2NO2NC)
- ☒ Shunt Release   
 ☐ Under-voltage Release   
 ☒ Prepaid Meter Dedicated Release



| Accessory Name                                                        | Accessory Code   |                         | LDM7-63L<br>LDM7-125L |    |    |
|-----------------------------------------------------------------------|------------------|-------------------------|-----------------------|----|----|
|                                                                       | Magnetic Release | Thermo-magnetic Release | 2P                    | 3P | 4P |
| No Internal Accessories                                               | 200              | 300                     |                       |    |    |
| Alarm Contacts                                                        | 208              | 308                     |                       |    |    |
| Shunt Release                                                         | 210              | 310                     |                       |    |    |
| Prepaid Meter Dedicated Release                                       | 210Y             | 310Y                    |                       |    |    |
| Auxiliary Contacts (1NO1NC)                                           | 220              | 320                     |                       |    |    |
| Auxiliary Contacts (2NO2NC)                                           |                  |                         |                       |    |    |
| Under-voltage Release                                                 | 230              | 330                     |                       |    |    |
| Shunt Release + Auxiliary Contacts (1NO1NC)                           | 240              | 340                     |                       |    |    |
| Shunt Release + Auxiliary Contacts (2NO2NC)                           |                  |                         |                       |    |    |
| Prepaid Meter Dedicated Release + Auxiliary Contacts                  | 240Y             | 340Y                    |                       |    |    |
| Under-voltage Release + Shunt Release                                 | 250              | 350                     |                       |    |    |
| Two Sets of Auxiliary Contacts                                        | 260              | 360                     |                       |    |    |
| Under-voltage Release + Auxiliary Contacts (1NO1NC)                   | 270              | 370                     |                       |    |    |
| Under-voltage Release + Auxiliary Contacts (2NO2NC)                   |                  |                         |                       |    |    |
| Shunt Release + Alarm Contacts                                        | 218              | 318                     |                       |    |    |
| Prepaid Meter Dedicated Release + Alarm Contacts                      | 218Y             | 318Y                    |                       |    |    |
| Auxiliary Contacts (1NO1NC) + Alarm Contacts                          | 228              | 328                     |                       |    |    |
| Auxiliary Contacts (2NO2NC) + Alarm Contacts                          |                  |                         |                       |    |    |
| Under-voltage Release + Alarm Contacts                                | 238              | 338                     |                       |    |    |
| Shunt Release + Auxiliary Contacts (1NO1NC) + Alarm Contacts          | 248              | 348                     |                       |    |    |
| Prepaid Meter Dedicated Release + Alarm Contacts + Auxiliary Contacts | 248Y             | 348Y                    |                       |    |    |
| Two Sets of Auxiliary Contacts (2NO2NC) + Alarm Contacts              | 268              | 368                     |                       |    |    |
| Under-voltage Release + Auxiliary Contacts (1NO1NC) + Alarm Contacts  | 278              | 378                     |                       |    |    |

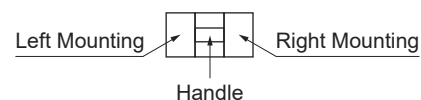
## Internal Accessories

| LDM7-63M, H<br>LDM7-125M, H |    | LDM7-160L |    |    | LDM7-160M, H |    |
|-----------------------------|----|-----------|----|----|--------------|----|
| 3P                          | 4P | 2P        | 3P | 4P | 3P           | 4P |
|                             |    |           |    |    |              |    |
|                             |    |           |    |    |              |    |
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## Internal Accessories

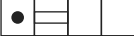
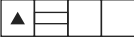
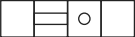
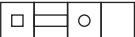
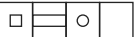
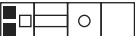
(Continued from previous page)

- ☐ Alarm Contacts   
 ☒ Auxiliary Contacts (1NO1NC)   
 ☒ Auxiliary Contacts (2NO2NC)   
 ☒ Shunt Release   
 ☐ Under-voltage Release   
 ☒ Prepaid Meter Dedicated Release



| Accessory Name                                                        | Accessory Code   |                         | LDM7-250L |    |
|-----------------------------------------------------------------------|------------------|-------------------------|-----------|----|
|                                                                       | Magnetic Release | Thermo-magnetic Release | 3P        | 4P |
| No Internal Accessories                                               | 200              | 300                     |           |    |
| Alarm Contacts                                                        | 208              | 308                     |           |    |
| Shunt Release                                                         | 210              | 310                     |           |    |
| Prepaid Meter Dedicated Release                                       | 210Y             | 310Y                    |           |    |
| Auxiliary Contacts (1NO1NC)                                           | 220              | 320                     |           |    |
| Auxiliary Contacts (2NO2NC)                                           |                  |                         |           |    |
| Under-voltage Release                                                 | 230              | 330                     |           |    |
| Shunt Release + Auxiliary Contacts (1NO1NC)                           | 240              | 340                     |           |    |
| Shunt Release + Auxiliary Contacts (2NO2NC)                           |                  |                         |           |    |
| Prepaid Meter Dedicated Release + Auxiliary Contacts                  | 240Y             | 340Y                    |           |    |
| Under-voltage Release + Shunt Release                                 | 250              | 350                     |           |    |
| Two Sets of Auxiliary Contacts                                        | 260              | 360                     |           |    |
| Under-voltage Release + Auxiliary Contacts (1NO1NC)                   | 270              | 370                     |           |    |
| Under-voltage Release + Auxiliary Contacts (2NO2NC)                   |                  |                         |           |    |
| Shunt Release + Alarm Contacts                                        | 218              | 318                     |           |    |
| Prepaid Meter Dedicated Release + Alarm Contacts                      | 218Y             | 318Y                    |           |    |
| Auxiliary Contacts (1NO1NC) + Alarm Contacts                          | 228              | 328                     |           |    |
| Auxiliary Contacts (2NO2NC) + Alarm Contacts                          |                  |                         |           |    |
| Under-voltage Release + Alarm Contacts                                | 238              | 338                     |           |    |
| Shunt Release + Auxiliary Contacts (1NO1NC) + Alarm Contacts          | 248              | 348                     |           |    |
| Prepaid Meter Dedicated Release + Alarm Contacts + Auxiliary Contacts | 248Y             | 348Y                    |           |    |
| Two Sets of Auxiliary Contacts (2NO2NC) + Alarm Contacts              | 268              | 368                     |           |    |
| Under-voltage Release + Auxiliary Contacts (1NO1NC) + Alarm Contacts  | 278              | 378                     |           |    |

## Internal Accessories

| LDM7-250M, H                                                                        |                                                                                     | LDM7-400L, M, H<br>LDM7-630L, M, H                                                  |                                                                                     | LDM7-W630L, M, H                                                                      |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 3P                                                                                  | 4P                                                                                  | 3P                                                                                  | 4P                                                                                  | 3P                                                                                    | 4P                                                                                    |
|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |
|    |    |    |    |    |    |
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## Internal Accessories

### Auxiliary Contacts



AX-M3 Auxiliary Contacts

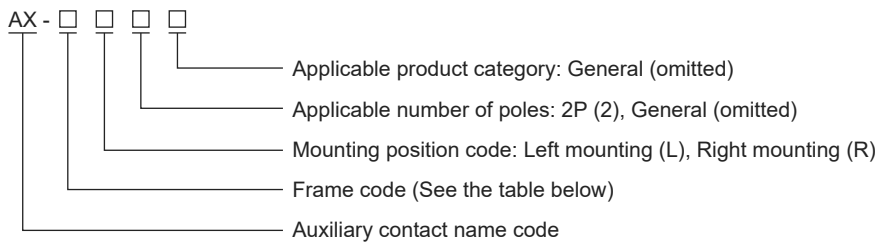


Assembly Diagram of Auxiliary Contacts and Breaker Body

#### Function

An accessory connected to the auxiliary circuit of the circuit breaker, used to remotely indicate the CLOSED (ON) or OPEN / Free Trip (OFF) status of the circuit breaker.

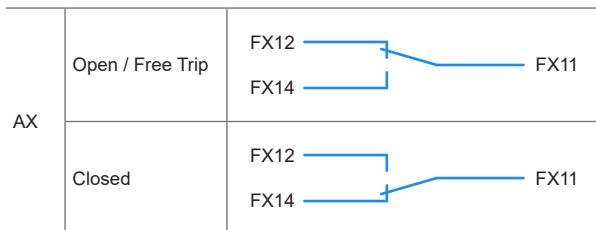
#### Type Designation (63-630 A Frame)



Ex. 63/125 Frame Right Auxiliary Contact Code: AX-M1 R

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

#### Circuit Breaker Status Indication

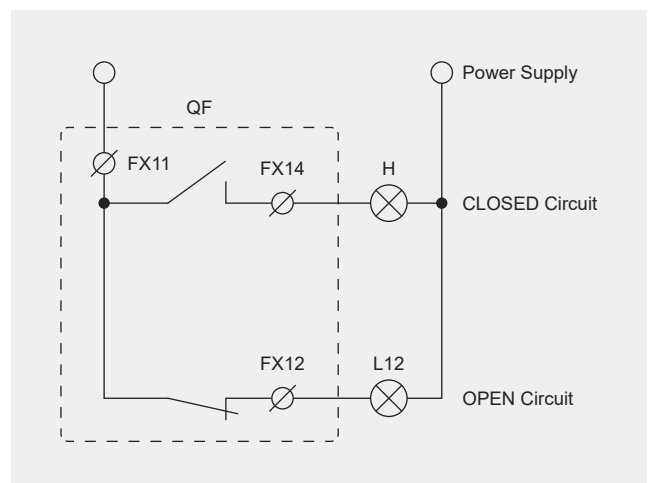


#### Electrical Characteristics

| Operating Voltage                  | AC-15            | DC-13    |              |
|------------------------------------|------------------|----------|--------------|
|                                    | AC 380/400/415 V | DC 110 V | DC 220/250 V |
| Operating Current (63-630 A Frame) | 0.26 A           | 0.14 A   | 0.14 A       |

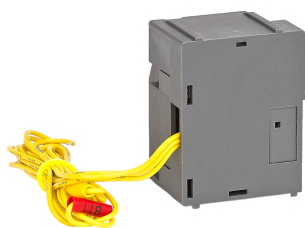
#### Wiring Diagram

Auxiliary contacts can form a control circuit with indicator lights. The OPEN/CLOSED status of the circuit breaker can be determined through the indicator lights without opening the distribution cabinet.



## Internal Accessories

### Alarm Contacts



AL-M6 Alarm Contacts



Assembly Diagram of Alarm Contacts and Breaker Body

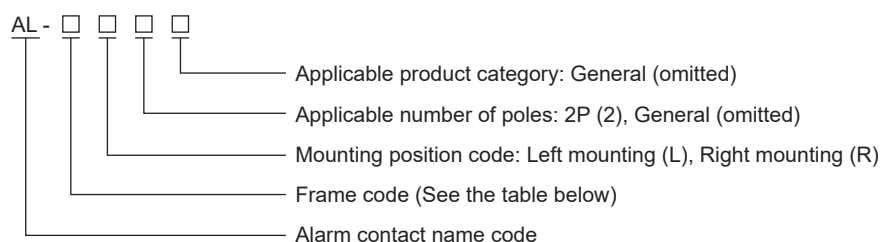
#### Function

Mainly used to provide a signal when a fault occurs or a free trip happens in the circuit breaker.

Fault indications by alarm contacts include:

- Free Trip
- Fault Tripping (overload, short-circuit, or under-voltage)

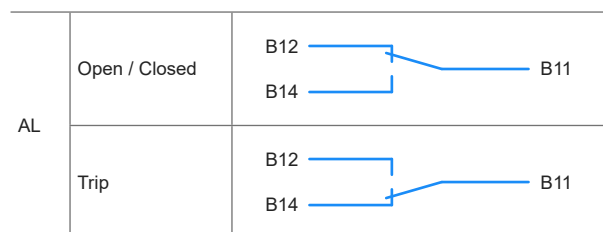
#### Type Designation (63-630 A Frame)



Ex. 63/125 Frame Left Alarm Contact Code: AL-M1 L

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

#### Circuit Breaker Status Indication

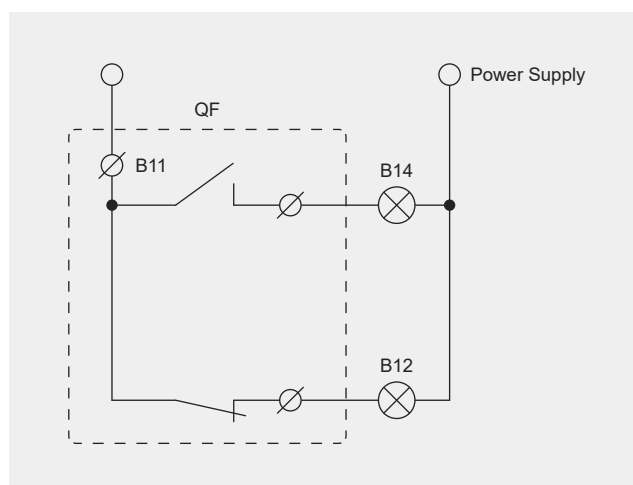


#### Electrical Characteristics

| Operating Voltage                  | AC-15            | DC-13    |              |
|------------------------------------|------------------|----------|--------------|
|                                    | AC 380/400/415 V | DC 110 V | DC 220/250 V |
| Operating Current (63-630 A Frame) | 0.26 A           | 0.14 A   | 0.14 A       |

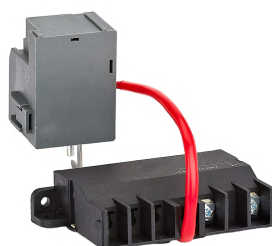
#### Wiring Diagram

Alarm contacts can be connected to indicator lights, buzzers, etc., to determine the status of the circuit breaker when a free trip or fault tripping occurs.



## Internal Accessories

### Under-voltage Release



UVT-M4 Under-voltage Release



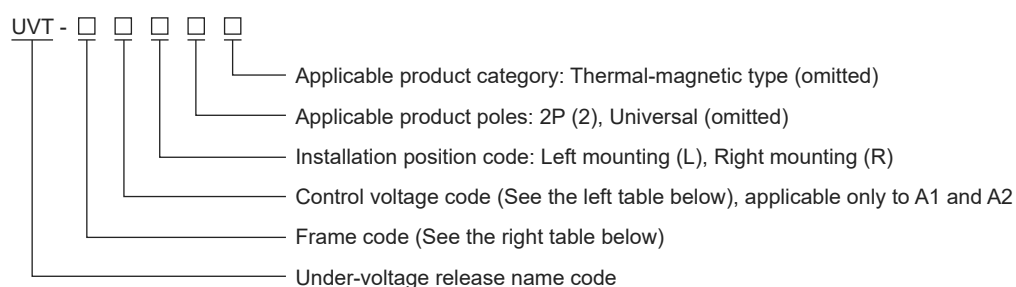
Assembly Diagram of Under-voltage Release and Breaker Body

#### Function

Provides under-voltage protection by tripping the breaker when supply voltage is too low, protecting connected equipment.

- **Reliable Trip:** Trips the breaker when voltage drops (even gradually) to 35%–70% of the rated control voltage.
- **Guaranteed Close:** Ensures closing when voltage is  $\geq 85\%$  of the rated control voltage.
- **Prevent Close:** Prevents closing when voltage is  $< 35\%$  of the rated control voltage.

#### Type Designation



Ex. 63/125 Frame Right Under-voltage Release Code: UVT- M1 A2 R

| Control Voltage | AC 220V/230V/240 V | AC 380V/400V/415 V |
|-----------------|--------------------|--------------------|
| Code            | A1                 | A2                 |

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

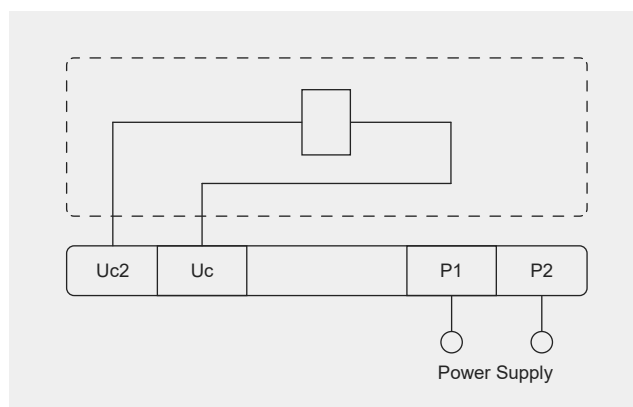
#### Electrical Characteristics

| Applicable Frame Current (A) | Under-voltage Release Power Consumption (VA or W) |                    |
|------------------------------|---------------------------------------------------|--------------------|
|                              | AC 220V/230V/240 V                                | AC 380V/400V/415 V |
| 63/125                       | 3.1                                               | 4                  |
| 160                          | 3.2                                               | 3.9                |
| 250                          | 3.3                                               | 4.3                |
| 400/630                      | 2.5                                               | 3.6                |
| W630                         | 1.6                                               | 2                  |

#### Operating Characteristics

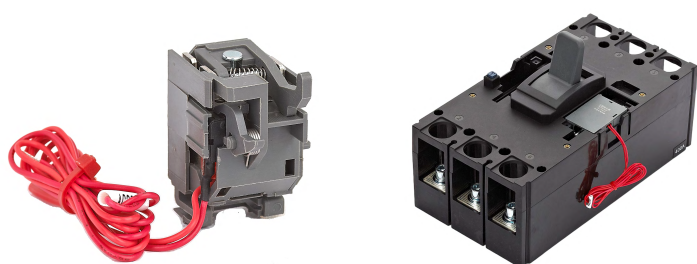
|                              |                       |             |
|------------------------------|-----------------------|-------------|
| Applicable Frame Current (A) | Reliable Opening      | 35% - 70%   |
|                              | Prevention of Closing | $\leq 35\%$ |
|                              | Reliable Closing      | $\geq 85\%$ |
| Response Time                |                       | 1s          |
| Number of Operations         |                       | 1000        |

#### Wiring Diagram



## Internal Accessories

### Shunt Trip



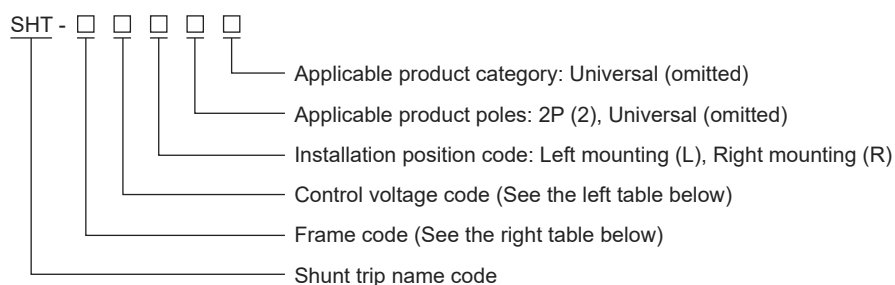
UVT-M4 Shunt Trip

Assembly Diagram of Shunt Trip and Breaker Body

### Function

The shunt trip is an accessory for remote tripping. When the supply voltage is between 70% and 110% of the rated control supply voltage, the shunt trip shall reliably operate the circuit breaker.

### Type Designation



Ex. 63/125 Frame, 400 V, Right Shunt Trip Code: SHT-M1 A2 L

| Control Voltage | AC 220V/230V/240 V | AC 380V/400V/415 V | DC 24 V | DC 110 V | DC 220 V |
|-----------------|--------------------|--------------------|---------|----------|----------|
| Code            | A1                 | A2                 | D1      | D2       | D3       |

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

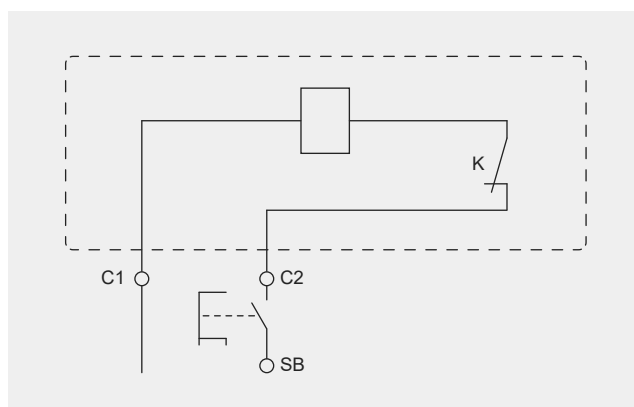
### Electrical Characteristics

| Applicable Frame Current (A) | Shunt Trip Power Consumption (VA or W) |                    |         |          |          |
|------------------------------|----------------------------------------|--------------------|---------|----------|----------|
|                              | AC 220V/230V/240 V                     | AC 380V/400V/415 V | DC 24 V | DC 110 V | DC 220 V |
| 63/125                       | 3.1                                    | 4                  | 91      | 80       | 136      |
| 160                          | 3.2                                    | 3.9                | 91      | 52.8     | 71       |
| 250                          | 3.3                                    | 4.3                | 85.3    | 58       | 66       |
| 400/630                      | 2.5                                    | 3.6                | 100     | 105      | 56       |
| W630                         | 1.6                                    | 2                  | 120     | 105      | 56       |

### Operating Characteristics

|                                |                           |       |
|--------------------------------|---------------------------|-------|
| Reliable operating voltage     | 70% - 110%XU <sub>s</sub> |       |
| Energization time (pulse type) | Minimum value             | 10 ms |
|                                | Maximum value             | 1 s   |
| Response Time                  | 30 ms                     |       |
| Number of Operations           | 1000                      |       |

### Wiring Diagram



## External Accessories

### Motor Operated Mechanism



MD-M2 Motor Operated Mechanism

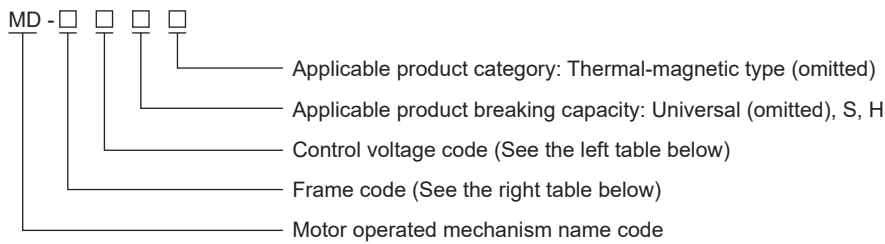


Assembly Diagram of Motor Operated Mechanism and Breaker Body

#### Function

Applicable for remote closing, opening, and resetting of circuit breakers, as well as for automated application scenarios.

#### Type Designation



Ex. 63/125 Frame MCCB, 400V, Motor Operated Mechanism Code: MD-M1 A2

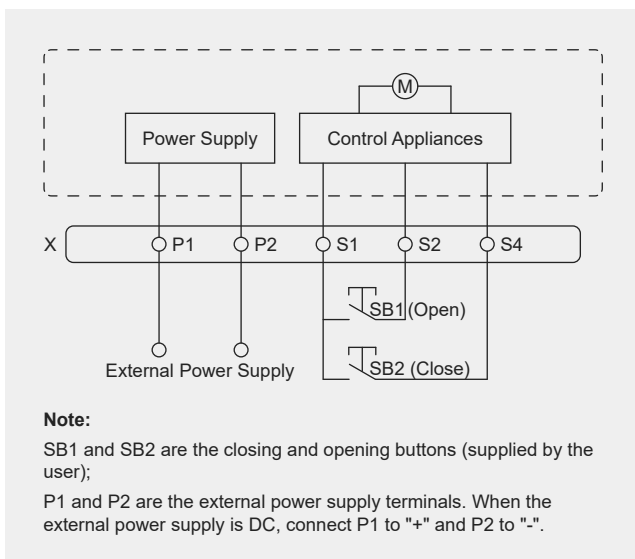
| Control Voltage | AC 220V/230V/240 V | AC 380V/400V/415 V | DC 24 V | DC 110 V | DC 220 V |
|-----------------|--------------------|--------------------|---------|----------|----------|
| Code            | A1                 | A2                 | D1      | D2       | D3       |

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

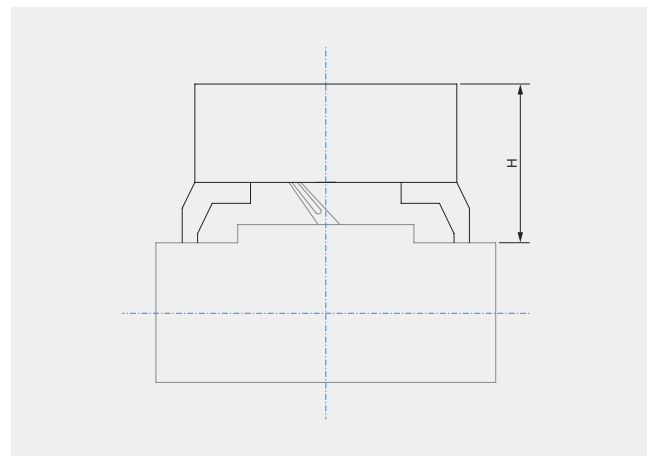
#### Electrical Characteristics

| Category        | Model | Full Series                                      |
|-----------------|-------|--------------------------------------------------|
| Structural Type |       | AC/DC universal                                  |
| Voltage Rating  |       | AC 220/230/240 V, AC 380/400/415 V, DC 110/220 V |
| Rated Frequency |       | 50/60 Hz                                         |

#### Operating Characteristics



#### Motor Operated Mechanism Installation Dimensions



| Frame  | 63/125 | 160 | 250  | 400/630 | W630 |
|--------|--------|-----|------|---------|------|
| H (mm) | 92     | 97  | 97.5 | 154     | 153  |

## External Accessories

### Manual Operating Mechanism



ERH-M6 Manual Operating Mechanism

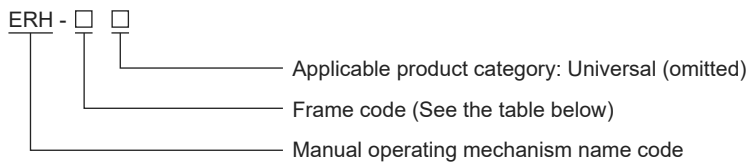


Assembly Diagram of Manual Operating Mechanism and Breaker Body

#### Function

Adopting a unique design and transmission structure, it realizes the closing, opening, and resetting operations of the circuit breaker through a rotary handle.

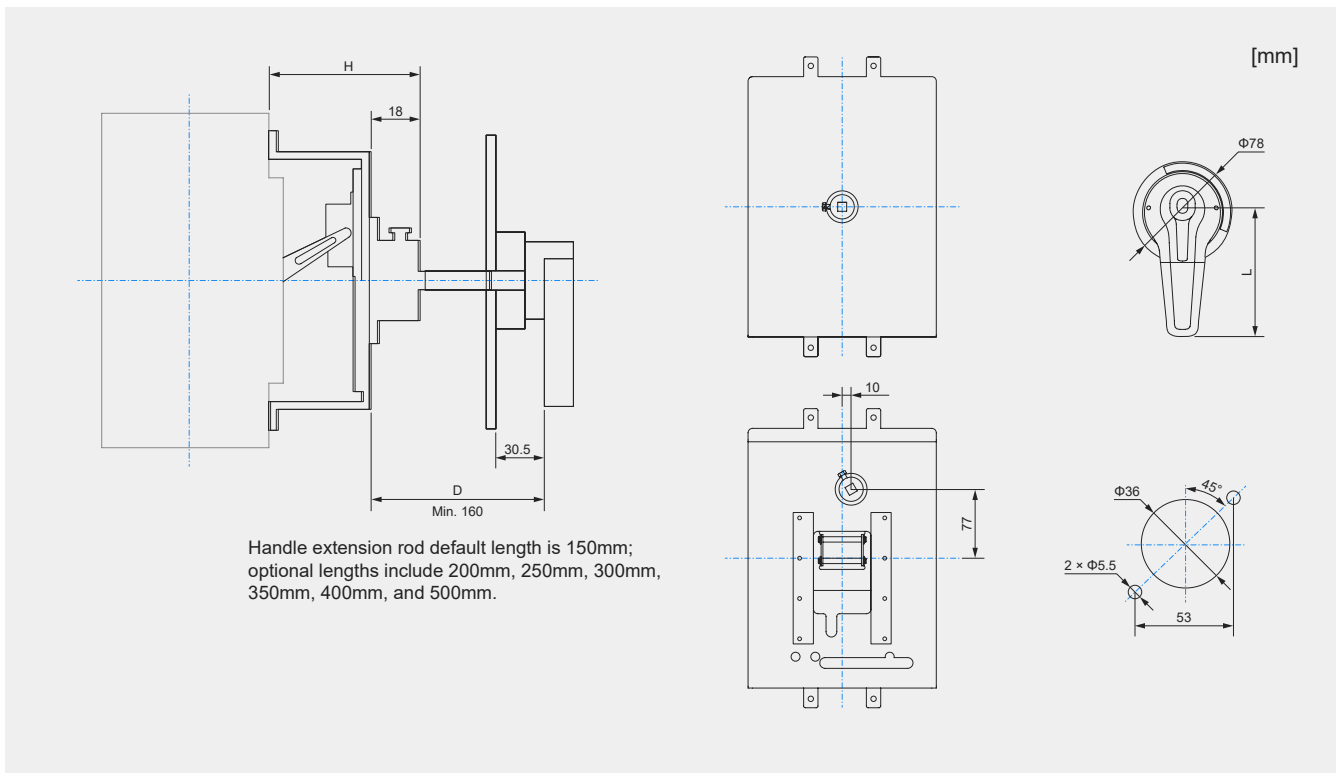
#### Type Designation



Ex. 63/125 Frame, 400 V, Right Shunt Trip Code: SHT-M1 A2 L

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

#### Manual Operating Mechanism Installation Dimensions



| Frame                          | 63/125 | 160  | 250  | 400/630 | W630 |
|--------------------------------|--------|------|------|---------|------|
| Installation Dimensions H (mm) | 53.5   | 61.5 | 63.5 | 98      | 97   |
| Handle Length L (mm)           | 65     |      |      | 95      |      |

## External Accessories

### Standard Extended Rotary Handle

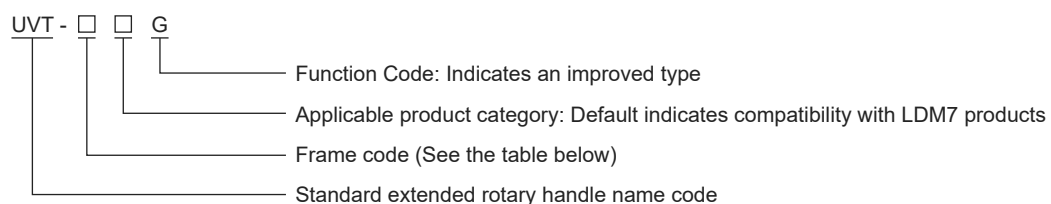


#### Function

Adopting a unique design and transmission structure, it realizes the closing, opening, and resetting operations of the circuit breaker through a rotary handle.

The protection degree can reach IP65 (door handle).

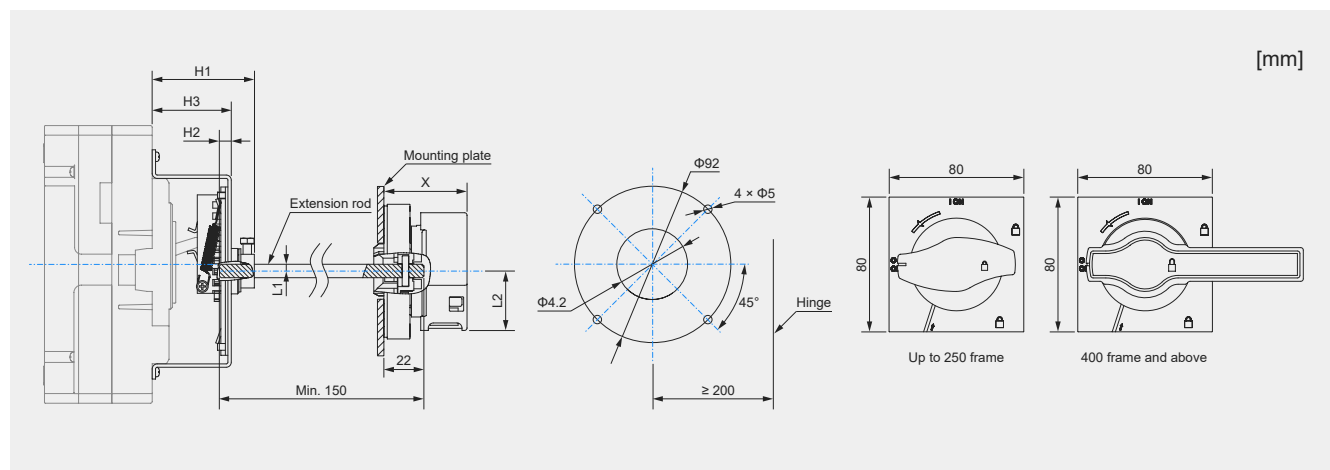
#### Type Designation



Ex. 63/125 Frame Circuit Breaker Standard Extended Rotary Handle Code: ERH-M1 G

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

#### Standard Extended Rotary Handle Installation Dimensions



| Dimension Code | Product Model |        |        |        |        |
|----------------|---------------|--------|--------|--------|--------|
|                | ERH-M1        | ERH-M2 | ERH-M3 | ERH-M4 | ERH-M5 |
| H1 (mm)        | 54            | 62     | 63.5   | 98     | 96     |
| H2 (mm)        | 20            | 20     | 20     | 20     | 20     |
| H3 (mm)        | 36            | 44     | 45.5   | 80     | 78     |
| L1 (mm)        | 0             | 0      | 0      | 0      | 0      |
| L2 (mm)        | 35            |        |        | 94     |        |
| X (mm)         | 50            |        |        | 74     |        |

#### Notes:

1. The horizontal center of the manual operating shaft aligns with the center of Phase B of the product body.
2. A positive L1 value indicates that the extension rod is located above the symmetry center of the product.

## External Accessories

### Extended Handle



LHD - M4 Extended Handle

### Function

Assists in the closing, opening, and resetting operations of the circuit breaker by pushing the extended handle.

### Type Designation

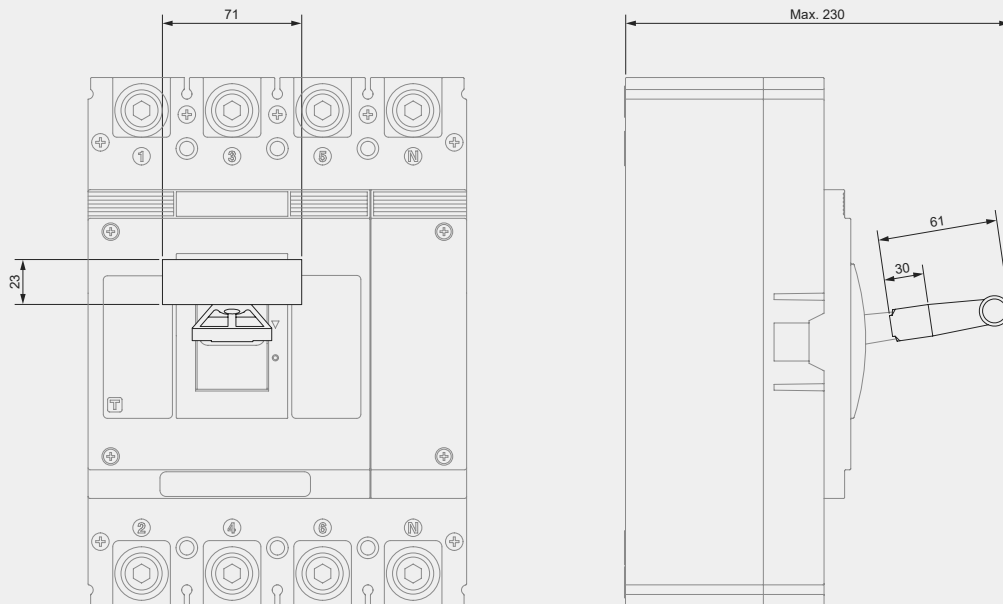
LHD - M4

Frame code

Extended handle name code

Note: Universal for 400 to W630 frames.

### Extended Handle Dimensions

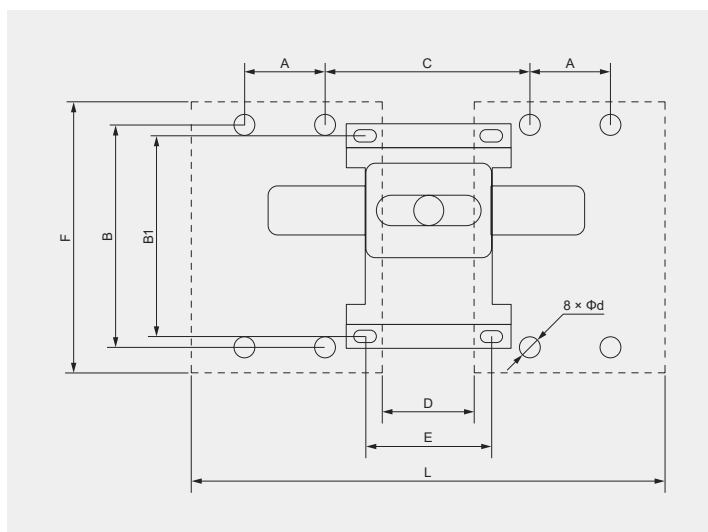


## External Accessories

### Mechanical Interlocking Mechanism

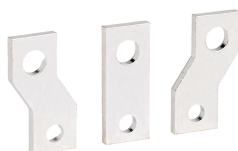


Mechanical Interlocking Mechanism



| Product Model | A (mm) | B (mm) | B1 (mm) | C (mm) | D (mm) | E (mm) | F (mm) | L (mm) | Φd (mm) |
|---------------|--------|--------|---------|--------|--------|--------|--------|--------|---------|
| LDM7-63L      | 25     | 117    | 95      | 83     | 30     | 80     | 135    | 186    | 4.2     |
| LDM7-125L     |        |        |         |        |        |        |        |        |         |
| LDM7-160L     | 30     | 130.5  | 107     | 84.3   | 24.3   | 37.5   | 155    | 114.3  | 4.5     |
| LDM7-250L     | 35     | 126    | 142     | 100    | 30     | 100    | 165    | 240    | 4.2     |

### Interphase Barrier



FCP-M4 Interphase Barrier

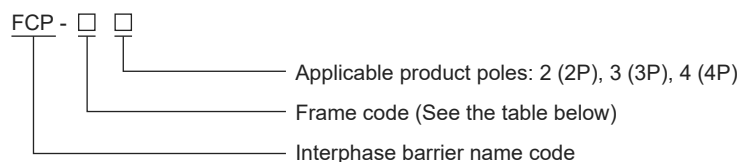


Assembly Diagram of Interphase Barrier and Breaker Body

#### Function

Provides flexible wiring arrangements for the circuit breaker. By adding this accessory, the phase-to-phase distance is increased, thereby enlarging the electrical clearance between adjacent incoming and outgoing terminals to enhance the safety of the circuit.

#### Type Designation



Ex. 63/125 Frame, 3-Pole Circuit Breaker, Interphase Barrier Code: FCP-M1 3

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

## External Accessories

### Plug-in Accessory

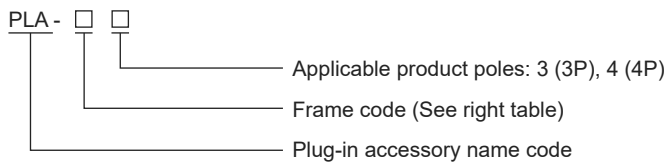


PIA-M2 Plug-in Accessory

#### Function

Allows for quick and convenient circuit breaker replacement without the need to disconnect the incoming and outgoing wiring.

#### Type Designation



Ex. 160 Frame, 3-Pole Circuit Breaker, Plug-in Accessory Code: PIA-M2 3

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

### Rear Connection

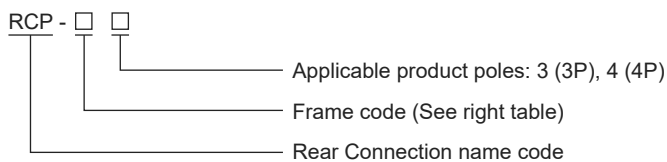


RCP-M3 Rear Connection

#### Function

Provides flexible wiring arrangements for the circuit breaker. It is used in conjunction with distribution boards or other applications that require rear-panel wiring.

#### Type Designation



Ex. 63/125 Frame, 3-Pole Circuit Breaker, Rear Connection Code: RCP-M1 3

| Frame | 63/125 | 160 | 250 | 400/630 | W630 |
|-------|--------|-----|-----|---------|------|
| Code  | M1     | M2  | M3  | M4      | M5   |

### Current Derating Table for Plug-in Type and Rear Connection

| Frame    | Rated Current  | Derating Current for Plug-in Type | Note |
|----------|----------------|-----------------------------------|------|
| LDM7-630 | 500(400 Frame) | 450                               |      |
|          | 630            | 520                               |      |

Note: Rated currents not specified in the table do not require derating.

## Technical Data

### Connection Cable / Copper Bar Parameter Table

Refer to the table below for the recommended cross-sectional areas of connection cables and copper bars under different rated currents.

| Rated Current (A)  | Conductor Cross-sectional Area (mm <sup>2</sup> ) |
|--------------------|---------------------------------------------------|
| 10                 | 1.5                                               |
| 16, 20             | 2.5                                               |
| 25                 | 4.0                                               |
| 32                 | 6.0                                               |
| 40, 50             | 10                                                |
| 63                 | 16                                                |
| 80                 | 25                                                |
| 100                | 35                                                |
| 125, 140           | 50                                                |
| 160                | 70                                                |
| 180, 200, 225      | 95                                                |
| 250                | 120                                               |
| 280, 315, 320, 350 | 185                                               |
| 400                | 240                                               |

| Rated Current (A) | Cable                                   |          | Copper Busbar          |          |
|-------------------|-----------------------------------------|----------|------------------------|----------|
|                   | Cross-sectional Area (mm <sup>2</sup> ) | Quantity | Width × Thickness (mm) | Quantity |
| 500               | 150                                     | 2        | 30 × 5                 | 2        |
| 630               | 185                                     | 2        | 40 × 5                 | 2        |
| 700, 800          | 240                                     | 2        | 50 × 5                 | 2        |
|                   |                                         |          | 50 × 10                | 1        |
| 900, 1000         | -                                       | -        | 63 × 10                | 1        |

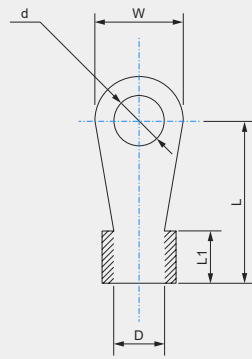
The above cross-sectional areas are reference values based on an ambient operating temperature of 40 °C.

### Power Loss Table

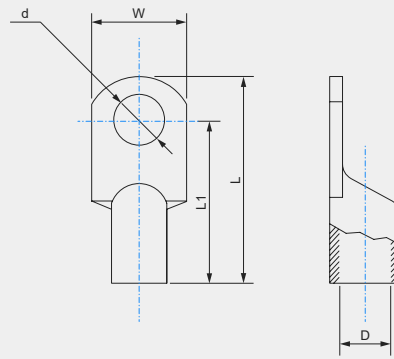
| Product Model | Rated Current (A) | Resistance per Pole (mΩ) | Total Power Loss for 3/4 Poles (W) |                 |                         |
|---------------|-------------------|--------------------------|------------------------------------|-----------------|-------------------------|
|               |                   |                          | Front Connection                   | Rear Connection | Plug-in Rear Connection |
| LDM7-63       | 63                | 1.8                      | 21                                 | 25              | 28                      |
| LDM7-125      | 125               | 0.6                      | 36                                 | 44              | 51                      |
| LDM7-160      | 160               | 0.42                     | 38                                 | 45              | 53                      |
| LDM7-250      | 250               | 0.35                     | 47                                 | 55              | 65                      |
| LDM7-400      | 400               | 0.13                     | 88                                 | 95              | 145                     |
| LDM7-630      | 630               | 0.09                     | 178                                | 140 (520 A)     | 152 (520 A)             |
| LDM7-W630     | 630               | 0.07                     | 124                                | 122             | 138                     |

## Technical Data

### Terminal Model and Dimensions



OT Type



JG Type

| Product Model                                        | Amperage (A)   | Conductor Cross-sectional Area (mm <sup>2</sup> ) | Terminal Model | Terminal Dimensions |      |      |       |      |
|------------------------------------------------------|----------------|---------------------------------------------------|----------------|---------------------|------|------|-------|------|
|                                                      |                |                                                   |                | W                   | L    | L1   | D     | d    |
| LDM7-63L<br>LDM7-63M, H<br>LDM7-125L<br>LDM7-125M, H | 10, 15, 16, 20 | 2.5                                               | OT2.5-6M       | 11.6                | 12.9 | 5    | Φ2.8  | Φ6.2 |
|                                                      | 25             | 4                                                 | OT4-6M         | 11.2                | 15   | 6    | Φ3.6  | Φ6.2 |
|                                                      | 30, 35         | 6                                                 | OT6-6          | 11                  | 17.5 | 7    | Φ4.4  | Φ6.2 |
|                                                      | 40, 50         | 10                                                | OT10-6         | 13.6                | 20.2 | 9    | Φ5.7  | Φ6.2 |
|                                                      | 60, 63         | 16                                                | OT-60          | 14                  | 23   | 10.5 | Φ8    | Φ6.5 |
|                                                      | 65, 70, 80     | 25                                                | OT-80          | 16                  | 25.5 | 11   | Φ9    | Φ6.5 |
|                                                      | 90, 100        | 35                                                | OT-100         | 17                  | 29   | 12   | Φ10   | Φ8.5 |
|                                                      | 110, 125       | 50                                                | Customization  | 16                  | 38.5 | 32   | Φ13   | Φ8.5 |
| CSDM7-160 L                                          | 125, 140, 150  | 50                                                | JG-50          | 11.2                | 54   | 46.5 | Φ10.3 | Φ8.5 |
| CSDM7-160M, H                                        | 160            | 70                                                | Customization  | 11.6                | 15   | 32   | Φ13.5 | Φ8.5 |
| CSDM7-250L<br>CSDM7-250M, H                          | 125, 140, 150  | 50                                                | JG-50          | 16                  | 12.9 | 52   | Φ10.3 | Φ8.5 |
|                                                      | 160            | 70                                                | JG-70          | 17                  | 25.5 | 57   | Φ12   | Φ8.5 |
|                                                      | 180, 200, 225  | 95                                                | JG-95          | 17                  | 29   | 45   | Φ14   | Φ8.5 |
|                                                      | 250            | 120                                               | Customization  | 22                  | 70   | 60   | Φ15.5 | Φ8.5 |

### Terminal Models and Dimensions

| Rated Current (A)      | 63/125 A | 160 A | 250 A | 400/630 A | W630 A |
|------------------------|----------|-------|-------|-----------|--------|
| Tightening Torque(N·m) | 4        | 10    | 12    | 30        | 40     |

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