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### Front Plug-in Installation Dimensions (mm)

Note: 400A, 630A don't need insulating plate

| Model     | A   | B  | L1  | L3  | D   | E    | F  | H  | H1  | L   | L1 | A1  | B1  | D1 | A2  | B2  | D2  |
|-----------|-----|----|-----|-----|-----|------|----|----|-----|-----|----|-----|-----|----|-----|-----|-----|
| HDM3S-160 | 112 | 30 | 200 | 216 | 4.5 | 6.5  | 56 | 28 | 182 | 172 | 30 | 5.5 | 67  | 60 | 6.5 | 6.5 | 6.5 |
| HDM3S-250 | 150 | 35 | 223 | 243 | 4.5 | 6.5  | 74 | 33 | 202 | 191 | 35 | 5.5 | 74  | 70 | 6.5 | 6.5 | 6.5 |
| HDM3S-400 | 249 | 44 | 332 | 358 | 5.5 | 10.5 | 85 | 36 | 310 | 295 | 44 | 6.5 | 146 | 88 | 7   | 7   | 7   |
| HDM3S-630 | 249 | 44 | 332 | 358 | 5.5 | 10.5 | 85 | 36 | 310 | 295 | 44 | 6.5 | 146 | 88 | 7   | 7   | 7   |

### Rear Plug-in Installation Dimensions (mm)

| Model         | A   | B   | L1 | L3 | D  | E  | F  | H  | H1 | L  | L1 | A1 | B1 | D1 | A2 | B2 | D2 |
|---------------|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| HDM3S-160     | 30  | 132 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| HDM3S-250     | 35  | 126 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 |
| HDM3S-400/630 | 128 | 194 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |

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### Handle Dimensions (mm)

Note: G means rod length, minimum distance is 50mm, the 150mm is standard. If you need customized, please contact us.

| Model         | A   | B   | C  | D  | H  |
|---------------|-----|-----|----|----|----|
| HDM3S-160     | 30  | 132 | 66 | 66 | 66 |
| HDM3S-250     | 35  | 126 | 63 | 63 | 63 |
| HDM3S-400/630 | 128 | 194 | 97 | 97 | 75 |

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### Installation Dimensions (mm)

### Motor Installation Dimensions (mm)

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### Overall and Installation Dimensions of HDM3S

| Model     | A   | H    |
|-----------|-----|------|
| HDM3S-160 | 112 | 55   |
| HDM3S-250 | 150 | 58   |
| HDM3S-400 | 249 | 74.3 |

| Model         | Fit       | Overall dimension                                | Installation dimension  |   |
|---------------|-----------|--|---|---|
| HDM3S-160     | 3P        | L1 L2 L3 L4 L5 W1 W2 W3 W4 W5 H1 H2 H3 H4 H5 A B | 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 |   |
|               | 4P        | L1 L2 L3 L4 L5 W1 W2 W3 W4 W5 H1 H2 H3 H4 H5 A B | 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 |   |
|               | HDM3S-250 | 3P   | L1 L2 L3 L4 L5 W1 W2 W3 W4 W5 H1 H2 H3 H4 H5 A B                        | 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 |
|               |           | 4P   | L1 L2 L3 L4 L5 W1 W2 W3 W4 W5 H1 H2 H3 H4 H5 A B                        | 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 |
| HDM3S-400/630 | 3P        | L1 L2 L3 L4 L5 W1 W2 W3 W4 W5 H1 H2 H3 H4 H5 A B | 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 |   |
|               | 4P        | L1 L2 L3 L4 L5 W1 W2 W3 W4 W5 H1 H2 H3 H4 H5 A B | 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 154 |   |

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### Terminal block mounting hole drawing (mm)

| Model     | A    | B    | C    | D      |
|-----------|------|------|------|--------|
| HDM3S-160 | 16   | 7.7  | 10.5 | M8*20  |
| HDM3S-250 | 21   | 10   | 11   | M8*20  |
| HDM3S-400 | 27.5 | 15.3 | 13.4 | M10*30 |
| HDM3S-630 | 27.5 | 15.3 | 13.4 | M10*30 |

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## User manual

### HDM3S

#### Molded Case Circuit Breaker

Complied Standard: IEC 60947-2  
Please read the instructions carefully before the installation and use of the products, keep it properly as backup.

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### Safety notification

Before the installation, handling, operation, maintenance and inspection of this product, please carefully read this instruction, and accurately install and use this product according to the content in this instruction.

**Risk**

- It is strictly forbidden to operate the circuit breaker with wet hands and touch the electrifying part (conductor and port) in service, otherwise the risk of electric shock and burns may occur.
- During the care and maintenance of this product, the superior power must be cut off first and make sure that the inlet wire terminals are not charged, otherwise serious consequences will be caused and it may endanger personal safety.

**Attention**

- It is forbidden to open the circuit breaker middle cover without permission.
- In the installation, care and maintenance of this product, it should be carried out by qualified personnel.
- Before using this product, please confirm whether the product's working voltage, rated current, frequency and on-off indicators meet the work requirements.
- In order to prevent interphase short circuit, insulation treatment should be carried out for exposed conductor or copper bus at the connection end. If the product has arc plates, it must be installed before use.
- If the product is damaged when unpacking, stop using it immediately and contact the supplier.
- If you need to choose accessories, please choose the accessories provided by our company to guarantee the quality. We will not be responsible for any consequences arising from user's use of the accessories not produced by our company.
- If the product is equipped with the under-voltage tripper, the under-voltage tripper must first pass the rated voltage before being switched on.
- It is strictly forbidden to test the short-circuit performance of the product with the phase line.
- When the product is scrapped, please dispose of the product waste. Thank you for your cooperation.

**Product test**

Insulation test  
The insulation test of the circuit breaker has been performed in accordance with the standard measurement before leaving the factory. If the insulation test is performed before installation, the steps are as follows:

- 1) Please use a 1000V DC megger meter.
- 2) The insulation resistance should be less than 20MΩ.
- 3) Between the circuit breaker inlet and outlet wire terminal (product disconnection), interphase and phase, and cases (case can be covered with metal foil).
- 4) In the under-voltage tripper connected to the main circuit, between the inlet line and the breaker case.

Note: If the user does not have a megger meter, labor frequency puncture tester can be used for substitution. The measurement site is as described above. The applied voltage to 125-630 case is 2000V for 5 seconds while the applied voltage to 800 case is 2200V for 5 seconds.

Please pay attention to the information with ⚠️

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### Contents

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### Transportation, storage and service environment

1. Try to avoid destructive action like the weight squeeze and throwing in the process of transportation, so as not to damage the product.
2. Allowable ambient temperature (+25°C ~ +40°C), relative humidity (at an ambient temperature of 25°C) ≤95%, 24h average temperature is not exceeding 35°C.
3. Product service environment:
  - The product protection grade is IP20.
  - The pollution level is level 3.
  - Installation site shall be no more than 2000m above sea level. If it is more than 2000m, it shall be used with the capacity being reduced.
  - The relative humidity of the atmosphere is no more than 50% at the highest surrounding humidity +40°C, there is a higher relative humidity at a lower temperature (for example, 90% at +20°C), taking into account the condensation occurring on the surface of the product due to humidity changes.
  - Do not install the product in the areas where the external magnetic field is 5 times more than the ground magnetic field. Otherwise, the circuit breaker cannot work normally.
  - Do not install in the environment containing explosive gas, otherwise there is a risk of explosion.
  - Do not install in areas where gas media can corrode metals and damage insulation.

### Open case inspection

Open the case to inspect the following when receiving the product:

- 2.1 If there is no damage to the outer shell or breakage of the handle in the process of transportation.
- 2.2 There shall be the following item list in the packing case

| Packing specs | Purchased product | Interphase bar | Terminal screw | Installation screw | User manual | Lengthen handle (630) |
|---------------|-------------------|----------------|----------------|--------------------|-------------|-----------------------|
| Quantity      | 1 set             | 3 pole(4 pcs)  | 3 pole(6 pcs)  | 4 pcs              | 1 pcs       | 1 pcs                 |

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### Product mode

|                         |                                   |
|-------------------------|-----------------------------------|
| 1. Mounting hole        | 8. Certification mark             |
| 2. Product name         | 9. Use category                   |
| 3. Technical parameters | 10. Breaker with locking function |
| 4. Breaking capacity    | 11. Complied standard             |
| 5. Brand name           | 12. Closing tripping and opening  |
| 6. Test button          | 13. Instant adjustable parameter  |
| 7. Brand trademark      | 14. Delay adjustable parameter    |

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### MCCB Selection Code

| Range name | Frame size | Breaking capacity | Rated current        | Phase | Protection | Temperature   |
|------------|------------|-------------------|----------------------|-------|------------|---|
| HDM3S      | 160        | M                 | 25/32A<br>63/80/100A | 3     | 3XX        | Default:40°C<br>120°C<br>Thermal magnetic adjustable<br>120°C<br>Thermal only<br>120°C<br>Thermal adjustable only |
|            |            |                   |                      |       |            |   |
|            | 150        | W                 | M3/300A              | 3     | 3XX        | Default:40°C<br>120°C<br>Thermal magnetic adjustable<br>120°C<br>Thermal only<br>120°C<br>Thermal adjustable only |
|            |            |                   |                      |       |            |   |

Note: 1. The phase is equipped with contacts, but without protection. 2. Please refer to the other 3 poles.

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### Operate and debug HDM3S

- 1) The preset position is at trip.
- 2) Press the handle to the "Open" position.
- 3) Close the breaker and the handle reaches the "Close" position.
- 4) Press and the breaker handle returns to "Trip" position.

⚠️ N phase of four-pole product is 100% phase line area. Malfunction or refusal to move will appear in case of failure to install the wire in accordance with the product standards. The phase partitions must be installed for products to prevent interphase short circuit.

| Model   | Hexagon | Torque force N.m |
|---------|---------|------------------|
| 160/250 | M8      | 9.5-10.5         |
| 400/630 | M10     | 19.5-20.5        |

| Rated current/A           | 10  | 16  | 25 | 32 | 40 | 63 | 80 | 100 | 140 | 160 | 200 | 225 | 250 | 315 | 400 |
|---------------------------|-----|-----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| Connecting conductor(mm²) | 1.5 | 2.5 | 4  | 6  | 10 | 16 | 25 | 35  | 50  | 70  | 95  | 120 | 185 | 240 |     |

| Rated current/A | Quantity | Copper conductor or insulated copper wire Cross section mm² | Copper busbar Cross section mm² |
|-----------------|----------|---|---------------------------------|
| 500             | 2        | 150   | 30*5                            |
| 630             | 2        | 185   | 40*5                            |

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### Safety clearance (mm)

| Model     | A   | B   | B1(mm)                  | C(mm) |
|-----------|-----|-----|-------------------------|-------|
| HDM3S-160 | 60  | 60  |                         | 30    |
| HDM3S-250 | 60  | 60  | Bare conductor length+B | 30    |
| HDM3S-400 | 110 | 110 |                         | 70    |
| HDM3S-630 | 110 | 110 |                         | 70    |

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### HDM3S installation

#### Fixed front mounting hole drawing (mm)

| Model         | Plate | A   | B  | C | D   |
|---------------|-------|-----|----|---|-----|
| HDM3S-160     | 3     | 132 | 30 | / | 4.5 |
| HDM3S-250     | 3     | 126 | 35 | / | 4.5 |
| HDM3S-400/630 | 3     | 194 | 44 | / | 7   |

Note: X-X and Y-Y is the center of the three-pole breaker

#### Fixed rear mounting hole drawing (mm)

| Model     | Plate | A   | B  | C | D   | E   | D1   | H1 | H2   | D3  |    |     |
|-----------|-------|-----|----|---|-----|-----|------|----|------|-----|----|-----|
| HDM3S-160 | 3     | 132 | 30 | / | 4.5 | 134 | 30   | /  | 9.8  | 112 | 72 | 9.8 |
|           |       |     |    |   |     |     |      |    |      |     |    |     |
| HDM3S-250 | 3     | 126 | 35 | / | 4.5 | 144 | 35   | /  | 8    | 126 | 87 | 9.8 |
|           |       |     |    |   |     |     |      |    |      |     |    |     |
| HDM3S-400 | 3     | 194 | 44 | / | 7   | 230 | 43.5 | /  | 10.5 | 136 | 83 | 30  |
|           |       |     |    |   |     |     |      |    |      |     |    |     |
| HDM3S-630 | 4     | 194 | 44 | / | 7   | 230 | 43.5 | /  | 10.5 | 136 | 83 | 32  |
|           |       |     |    |   |     |     |      |    |      |     |    |     |

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