# Enclosed motor starters, Mold enclosure







Internal device

## Description

- Enclosed & full voltage type
  MW-□bM: Plastic enclosure without buttons
  MW-□bMB: Plastic enclosure with ON/OFF buttons
- With differential or non-differential type thermal overload relay
- Contactors: 3 pole with AC coil
- Screw mountable
- Degree of protection: IP40

### Ratings

| Type | AC3 Ratings (IEC 60947-4-1) | | | | Auxiliary contact (standard) | Devices combined | |
|---|---|---|---|---|---|---|---|
| | 220 ~ 240V | 380 ~ 440V | 500 ~ 550V | 690 | | Contactor | Overload relay |
| MW-9bM(B) | 2.5kW 11A | 4kW 9A | 4kW 7A | 4kW 6A | 1NO1NC | MC-9b | MT-32 (0.1~22A) |
| MW-12bM(B) | 3.5kW 13A | 5.5kW 12A | 7.5kW 12A | 7.5kW 9A | | MC-12b | |
| MW-18bM(B) | 4.5kW 18A | 7.5kW 18A | 7.5kW 13A | 7.5kW 9A | | MC-18b | |
| MW-22bM(B) | 5.5kW 22A | 11kW 22A | 15kW 20A | 15kW 18A | | MC-22b | |

### Overload relay setting range, Amp.

| MT-12 | | MT-32 | | MT-63 | | MT-95 | |
|---|---|---|---|---|---|---|---|
| 0.1 - 0.16 | 5 - 8 | 0.1 - 0.16 | 5 - 8 | 4 - 6 | 28 - 40 | 7 - 10 | 54 - 75 |
| 0.16 - 0.25 | 6 - 9 | 0.16 - 0.25 | 6 - 9 | 5 - 8 | 34 - 50 | 9 - 13 | 63 - 85 |
| 0.25 - 0.4 | 7 - 10 | 0.25 - 0.4 | 7 - 10 | 6 - 9 | 45 - 65 | 12 - 18 | 70 - 95 |
| 0.4 - 0.63 | 9 - 13 | 0.4 - 0.63 | 9 - 13 | 7 - 10 | | 16 - 22 | 80 - 100 |
| 0.63 - 1 | 12 - 18 | 0.63 - 1 | 12 - 18 | 9 - 13 | | 18 - 25 | |
| 1 - 1.6 | | 1 - 1.6 | 16 - 22 | 12 - 18 | | 24 - 36 | |
| 1.6 - 2.5 | | 1.6 - 2.5 | 18 - 25 | 16 - 22 | | 28 - 40 | |
| 2.5 - 4 | | 2.5 - 4 | 22 - 32 | 18 - 25 | | 34 - 50 | |
| 4 - 6 | | 4 - 6 | 28 - 40 | 24 - 36 | | 45 - 65 | |

### Coil voltage

| | | |
|---|---|---|
| AC | 50Hz | 24, 32, 42, 48, 80, 100, 110, 220, 230, 240, 380, 400, 500, 550V |
| | 60Hz | 24, 48, 100, 110, 120, 200, 208, 220, 230, 240, 277, 380, 480, 600V |

**Certification**
- CE(IEC)
- UL508

### Type numbering system

**MW-6a / B / 2H**

| Rated current | |
|---|---|
| 6a | 6A |
| ⋮ | |
| 100a | 100A |

| Enclosure type | |
|---|---|
| - | Without push button(Steel enclosure) |
| B | With push button (Steel enclosure) |
| M | Without push button (Mold enclosure) |
| MB | With push button (Mold enclosure) |

| Thermal overload relay version | |
|---|---|
| 2H | Non-differential(2-heater) |
| 3H | Non-differential(3-heater) |
| 3K | Differential |
| 3D | Class 20 |