



MM506N



**Motor protection circuit breaker 3P 1-1.6A ; 0.25/0.55 kW at 230/415V**

**Technical characteristics**

**Architecture**

|                 |                               |
|-----------------|-------------------------------|
| Type of order   | Short thumb-grip              |
| Number of poles | 3 P                           |
| Type of pole    | 3 P                           |
| Fixing mode     | DIN rail type O (symmetrical) |

**Configuration**

|                   |     |
|-------------------|-----|
| Number of modules | 2.5 |
|-------------------|-----|

**Main electrical features**

|                              |          |
|------------------------------|----------|
| Rated operational voltage Ue | 690 V    |
| Type of supply voltage       | AC       |
| Frequency                    | 50/60 Hz |

**Voltage**

|                                 |        |
|---------------------------------|--------|
| Rated insulation voltage        | 690 V  |
| Rated impulse withstand voltage | 6000 V |

**Electric current**

|  |   |
|--|---|
| Rated current  | 1.6 A   |
| Rated ultimate short-circuit breaking capacity Icu under 690V AC IEC 60947-2 | 150 kA  |
| Magnetic regulating current  | 12.4 / 15.5 / 18.6 In                               |
| Thermal trip setting with 30°  | 1 / 1.1 / 1.2 / 1.2 / 1.3 / 1.4 / 1.5 / 1.5 / 1.6 A |
| Rating current 0°C according to IEC 60947                                    | 1.6 A   |
| Rating current 10°C according to IEC 60947                                   | 1.6 A   |
| Rating current 20°C according to IEC 60947                                   | 1.6 A   |
| Rating current 30°C according to IEC 60947                                   | 1.6 A   |
| Rating current 40°C according to IEC 60947                                   | 1.6 A   |
| Rating current 50°C according to IEC 60947                                   | 1.6 A   |
| Rated service breaking capacity Ics AC according IEC 60947-2                 | 100 %   |
| Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 | 150 kA  |
| Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 | 150 kA  |
| Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2 | 150 kA  |
| Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2 | 100 kA  |
| Rated ultimate short-circuit breaking capacity Icu under 220V AC IEC 60947-2 | 150 kA  |

|  |        |
|--|--------|
| Rated ultimate short-circuit breaking capacity Icu under 380V AC IEC 60947-2 | 150 kA |
|--|--------|

### Dimensions

|  |       |
|--|-------|
| Strip length of main circuit connections | 10 mm |
|--|-------|

### Frequency

|           |             |
|-----------|-------------|
| Frequency | 50 to 60 Hz |
|-----------|-------------|

### Power

|                           |        |
|---------------------------|--------|
| Total power loss under IN | 5.36 W |
|---------------------------|--------|

|  |         |
|--|---------|
| Standard power rating of 3 phase motor in AC3 under 230V | 0.25 kW |
|--|---------|

|  |         |
|--|---------|
| Standard power rating of 3 phase motor in AC3 under 400V | 0.55 kW |
|--|---------|

|  |         |
|--|---------|
| Rated operational power for 3P under 220-230V AC3 according IEC60947-4 | 0.25 kW |
|--|---------|

|  |         |
|--|---------|
| Rated operational power for 3P under 240V AC3 according IEC60947-4 | 0.25 kW |
|--|---------|

|  |         |
|--|---------|
| Rated operational power for 3P under 415V AC3 according IEC60947-4 | 0.37 kW |
|--|---------|

|  |         |
|--|---------|
| Rated operational power for 3P under 440V AC3 according IEC60947-4 | 0.55 kW |
|--|---------|

|  |         |
|--|---------|
| Rated operational power for 3P under 500V AC3 according IEC60947-4 | 0.75 kW |
|--|---------|

### Electrical specifications

|   |        |
|---|--------|
| Nominal tightening torque of main circuit | 1.7 Nm |
|---|--------|

### Endurance

|  |       |
|--|-------|
| Electric endurance in number of cycles | 50000 |
|--|-------|

|   |    |
|---|----|
| Mechanical endurance in number of operations per hour | 40 |
|---|----|

|                                 |        |
|---------------------------------|--------|
| Number of mechanical operations | 100000 |
|---------------------------------|--------|

### Installation, mounting

|                   |       |
|-------------------|-------|
| Tightening torque | 1,7Nm |
|-------------------|-------|

|                                  |            |
|----------------------------------|------------|
| Type connection of power circuit | with screw |
|----------------------------------|------------|

### Connection

|  |                       |
|--|-----------------------|
| Connection cross-section of input and output with screws, for massive conductors | 1 / 6 mm <sup>2</sup> |
|--|-----------------------|

|   |                       |
|---|-----------------------|
| Connection cross section of access and exit with screws, for flexible conductor | 1 / 6 mm <sup>2</sup> |
|---|-----------------------|

|   |   |
|---|---|
| Cable flexibel cross section for main circuit | 1x (1 - 6) mm <sup>2</sup> / 2x (1 - 6) mm <sup>2</sup> |
|---|---|

|  |   |
|--|---|
| Cable rigid cross section for main circuit | 1x (1 - 6) mm <sup>2</sup> / 2x (1 - 6) mm <sup>2</sup> |
|--|---|

|                    |            |
|--------------------|------------|
| Type of connection | with screw |
|--------------------|------------|

### Settings

|   |               |
|---|---------------|
| min/maxi threshold value of the AC magnetic operation | 19.8 / 29.8 A |
|---|---------------|

|                        |    |
|------------------------|----|
| Setting type In or Ith | IN |
|------------------------|----|

### Equipment

|   |            |
|---|------------|
| Automatic compensation of the temperature | -5 / 40 °C |
|---|------------|

Can be accessorized Yes

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**Use cases**

Category of use AC3

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**Standards**

Standard text IEC 60947-4-1 ; EN 60947-4-1

European directive RoHs voluntary compliance

European directive WEEE concerned

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**Safety**

Protection index IP IP20

Phase failure sensitive Yes

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**Use conditions**

Operating temperature -25...55 °C

Degree of pollution according to IEC 60664 /  
IEC 60947-2 3

Storage/transport temperature -25...80 °C

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**temperatur**

Temperature of calibration 30 °C