



MM512N



Motor protection circuit breaker 3P 16-20A ; 5.5/9 kW at 230/415V

Technical characteristics

Architecture

| | |
|-----------------|------------------|
| Type of order | Short thumb-grip |
| Number of poles | 3 P |
| Type of pole | 3 P |

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 | 20 A |
| Rated ultimate short-circuit breaking capacity Icu under 690V AC IEC 60947-2 | 3 kA |
| Magnetic regulating current | 12.4 / 15.5 / 18.6 In |
| Thermal trip setting with 30° | 16 / 16.5 / 17 / 17.5 / 18 / 18.5 / 19 / 19.5 / 20 A |
| Rating current 0°C according to IEC 60947 | 20 A |
| Rating current 10°C according to IEC 60947 | 20 A |
| Rating current 20°C according to IEC 60947 | 20 A |
| Rating current 30°C according to IEC 60947 | 20 A |
| Rating current 40°C according to IEC 60947 | 20 A |
| Rating current 50°C according to IEC 60947 | 20 A |
| Rated service breaking capacity Ics AC according IEC 60947-2 | 75 % |
| Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 | 50 kA |
| Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 | 50 kA |
| Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2 | 50 kA |
| Rated ultimate short-circuit breaking capacity Icu under 220V AC IEC 60947-2 | 50 kA |
| Rated ultimate short-circuit breaking capacity Icu under 380V AC IEC 60947-2 | 50 kA |

Dimensions

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

Frequency

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

Power

| | |
|--|---------|
| Total power loss under IN | 6.43 W |
| Standard power rating of 3 phase motor in AC3 under 230V | 5.5 kW |
| Standard power rating of 3 phase motor in AC3 under 400V | 9 kW |
| Rated operational power for 3P under 220-230V AC3 according IEC60947-4 | 5.5 kW |
| Rated operational power for 3P under 240V AC3 according IEC60947-4 | 5.5 kW |
| Rated operational power for 3P under 415V AC3 according IEC60947-4 | 9 kW |
| Rated operational power for 3P under 440V AC3 according IEC60947-4 | 11 kW |
| Rated operational power for 3P under 500V AC3 according IEC60947-4 | 12.5 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 ² |
| Connection cross section of access and exit with screws, for flexible conductor | 1 / 6 mm ² |
| Cable flexibel cross section for main circuit | 1x (1 - 6) mm ² / 2x (1 - 6) mm ² |
| Cable rigid cross section for main circuit | 1x (1 - 6) mm ² / 2x (1 - 6) mm ² |

Settings

| | |
|---|-------------|
| min/maxi threshold value of the AC magnetic operation | 248 / 372 A |
| Setting type In or Ith | IN |

Equipment

| | |
|---|------------|
| Automatic compensation of the temperature | -5 / 40 °C |
| Can be accessorized | Yes |

Use cases

| | |
|-----------------|-----|
| Category of use | AC3 |
|-----------------|-----|

Subject to technical modifications

| | |
|--|------------------------------|
| Standards | |
| Standard text | IEC 60947-4-1 ; EN 60947-4-1 |
| European directive RoHS | voluntary compliance |
| European directive WEEE | concerned |
| Safety | |
| Protection index IP | IP20 |
| REACH conform | Yes |
| RoHS conform | Yes |
| Halogen free | No |
| Phase failure sensitive | Yes |
| Use conditions | |
| Operating temperature | -25...55 °C |
| Degree of pollution according to IEC 60664 / IEC 60947-2 | 3 |
| Storage/transport temperature | -25...80 °C |
| temperatur | |
| Temperature of calibration | 30 °C |