



MM511N



## Motor protection circuit breaker 3P 10-16A ; 4/7.5 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
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#### Main electrical features

Rated operational voltage $U_e$	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	16 A
Rated ultimate short-circuit breaking capacity $I_{cu}$ under 690V AC IEC 60947-2	3 kA
Magnetic regulating current	12.4 / 15.5 / 18.6 In
Thermal trip setting with 30°	10 / 10.8 / 11.5 / 12.3 / 13 / 13.8 / 14.5 / 15.3 / 16 A
Rating current 0°C according to IEC 60947	16 A
Rating current 10°C according to IEC 60947	16 A
Rating current 20°C according to IEC 60947	16 A
Rating current 30°C according to IEC 60947	16 A
Rating current 40°C according to IEC 60947	16 A
Rating current 50°C according to IEC 60947	16 A
Rated service breaking capacity $I_{cs}$ AC according IEC 60947-2	75 %
Rated ultimate short-circuit breaking capacity $I_{cu}$ under 230V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity $I_{cu}$ under 240V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity $I_{cu}$ under 400V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity $I_{cu}$ under 220V AC IEC 60947-2	50 kA
Rated ultimate short-circuit breaking capacity $I_{cu}$ under 380V AC IEC 60947-2	50 kA

**Dimensions**

Strip length of main circuit connections	10 mm
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**Frequency**

Frequency	50 to 60 Hz
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**Power**

Total power loss under IN	6.64 W
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Standard power rating of 3 phase motor in AC3 under 230V	4 kW
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Standard power rating of 3 phase motor in AC3 under 400V	7.5 kW
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Rated operational power for 3P under 220-230V AC3 according IEC60947-4	4 kW
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Rated operational power for 3P under 240V AC3 according IEC60947-4	4 kW
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Rated operational power for 3P under 415V AC3 according IEC60947-4	7.5 kW
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Rated operational power for 3P under 440V AC3 according IEC60947-4	9 kW
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Rated operational power for 3P under 500V AC3 according IEC60947-4	9 kW
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**Electrical specifications**

Nominal tightening torque of main circuit	1.7 Nm
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**Endurance**

Electric endurance in number of cycles	50000
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Mechanical endurance in number of operations per hour	40
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Number of mechanical operations	100000
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**Installation, mounting**

Tightening torque	1,7Nm
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Type connection of power circuit	with screw
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**Connection**

Connection cross-section of input and output with screws, for massive conductors	1 / 6 mm <sup>2</sup>
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Connection cross section of access and exit with screws, for flexible conductor	1 / 6 mm <sup>2</sup>
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Cable flexibel cross section for main circuit	1x (1 - 6) mm <sup>2</sup> / 2x (1 - 6) mm <sup>2</sup>
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Cable rigid cross section for main circuit	1x (1 - 6) mm <sup>2</sup> / 2x (1 - 6) mm <sup>2</sup>
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Type of connection	with screw
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**Settings**

min/maxi threshold value of the AC magnetic operation	198.4 / 297.6 A
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Setting type In or Ith	IN
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**Equipment**

Automatic compensation of the temperature	-5 / 40 °C
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Can be accessorized	Yes
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**Use cases**

**Standards**

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Standard text	IEC 60947-4-1 ; EN 60947-4-1
European directive RoHS	voluntary compliance

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**Safety**

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REACH conform	Yes
RoHS conform	Yes
Halogen free	No
Phase failure sensitive	Yes

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**Use conditions**

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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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Temperature of calibration	30 °C
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