



MM510N



## Motor protection circuit breaker 3P 6.3-10A ; 2.2/4 kW at 230/415V

### Technical characteristics

#### Architecture

Number of poles	3 P
Type of pole	3 P
Fixing mode	DIN rail type O (symmetrical)

#### Configuration

Number of modules	2.5
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#### 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	10 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°	6.3 / 6.8 / 7.2 / 7.7 / 8.2 / 8.6 / 9.1 / 9.5 / 10 A
Rating current 0°C according to IEC 60947	0.42 A
Rating current 10°C according to IEC 60947	0.42 A
Rating current 20°C according to IEC 60947	0.42 A
Rating current 30°C according to IEC 60947	0.42 A
Rating current 40°C according to IEC 60947	0.42 A
Rating current 50°C according to IEC 60947	0.42 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 220V AC IEC 60947-2	150 kA
Rated ultimate short-circuit breaking capacity Icu under 380V AC IEC 60947-2	150 kA

<b>Dimensions</b>		
Strip length of main circuit connections		10 mm
<b>Frequency</b>		
Frequency		50 to 60 Hz
<b>Power</b>		
Total power loss under IN		6.48 W
Standard power rating of 3 phase motor in AC3 under 230V		2.2 kW
Standard power rating of 3 phase motor in AC3 under 400V		4 kW
Rated operational power for 3P under 220-230V AC3 according IEC60947-4		2.2 kW
Rated operational power for 3P under 240V AC3 according IEC60947-4		2.2 kW
Rated operational power for 3P under 415V AC3 according IEC60947-4		4 kW
Rated operational power for 3P under 440V AC3 according IEC60947-4		4 kW
Rated operational power for 3P under 500V AC3 according IEC60947-4		4 kW
<b>Electrical specifications</b>		
Nominal tightening torque of main circuit		1.7 Nm
<b>Endurance</b>		
Electric endurance in number of cycles		50000
Mechanical endurance in number of operations per hour		40
Number of mechanical operations		100000
<b>Installation, mounting</b>		
Type connection of power circuit		with screw
<b>Connection</b>		
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>	
<b>Settings</b>		
min/maxi threshold value of the AC magnetic operation		124 / 186 A
Setting type In or Ith		IN
<b>Equipment</b>		
Automatic compensation of the temperature		-5 / 40 °C
Can be accessorized		Yes
<b>Use cases</b>		
Category of use		AC3

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