MM513N

Motor protection circuit breaker 3P 20-25A ; 5.5/12.5 kW at 230/415V

Technical characteristics

Architecture

Number of poles	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	25 A
Rated ultimate short-circuit breaking capacity Icu under 690V AC IEC 60947-2	3 kA
Magnetic regulating currrent	12.4 / 15.5 / 18.6 In
Thermal trip setting with 30°	20 / 20.6 / 21.3 / 21.9 / 22.5 / 23.1 / 23.8 / 24.4 / 25 A
Rating current 0°C according to IEC 60947	25 A
Rating current 10°C according to IEC 60947	25 A
Rating current 20°C according to IEC 60947	25 A
Rating current 30°C according to IEC 60947	25 A
Rating current 40°C according to IEC 60947	25 A
Rating current 50°C according to IEC 60947	25 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	5.82 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	12.5 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	12.5 kW
Rated operational power for 3P under 440V AC3 according IEC60947-4	12.5 kW
Rated operational power for 3P under 500V AC3 according IEC60947-4	15 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 mm²
Connection cross section of access and exit with screws, for flexible conductor	1 / 6 mm²
Cable flexibel cross section for main circuit	1x (1 - 6) mm² / 2x (1 - 6) mm²
Cable rigid cross section for main circuit	1x (1 - 6) mm² / 2x (1 - 6) mm²
Type of connection	with screw

Settings

min/maxi threshold value of the AC magnetic operation	310 / 465 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

Standards

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

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