



HMF490

MCB 4P 10kA C-100A 6M

Technical properties

Architecture

| | |
|---------------------------|-----|
| Number of protected poles | 4 |
| Number of poles | 4 P |
| Curve | C |

Functions

| | |
|----------------------------------|----|
| Concurrently switching N-neutral | No |
|----------------------------------|----|

Configuration

| | |
|-------------------|---|
| Number of modules | 6 |
|-------------------|---|

Connectivity

| | |
|---|------------------|
| Top connection alignment for modular devices | Aligned terminal |
| Bottom connection alignment for modular devices | Aligned terminal |

Main electrical features

| | |
|--|----------|
| Rated short circuit breaking capacity I_{cn} AC according IEC60898-1 | 10 kA |
| Rated operational voltage U_e | 415 V |
| Type of supply voltage | AC |
| Frequency | 50/60 Hz |

Voltage

| | |
|---------------------------------|--------|
| Rated insulation voltage | 500 V |
| Rated impulse withstand voltage | 6000 V |

Electric current

| | |
|---|-------------------|
| Rated current | 100 A |
| Rated service breaking capacity I_{cs} AC according IEC 60898-1 | 7.5 kA |
| min/maxi threshold value of the AC thermal operation | 1.13 / 1.45 I_n |
| Magnetic regulating current | 5 / 10 I_n |
| Rating current 10°C according to IEC 60947 | 124 A |
| Rating current 15°C according to IEC 60947 | 120 A |
| Rating current 20°C according to IEC 60947 | 116 A |
| Rating current 25°C according to IEC 60947 | 112 A |
| Rating current 30°C according to IEC 60947 | 108 A |
| Rating current 35°C according to IEC 60947 | 104 A |
| Rating current 40°C according to IEC 60947 | 100 A |

| | |
|--|--------|
| Rating current 45°C according to IEC 60947 | 96.6 A |
| Rating current 50°C according to IEC 60947 | 93.1 A |
| Rating current 55°C according to IEC 60947 | 89.4 A |
| Rating current 60°C according to IEC 60947 | 85.6 A |
| Rating current 65°C according to IEC 60947 | 81.6 A |
| Rating current 70°C according to IEC 60947 | 77.5 A |
| Breaking capacity on 1 pole for IT 400V NF 60947-2 | 4.5 kA |
| Breaking capacity on 1 pole for IT 415V NF 60947-2 | 4.5 kA |
| Rated short circuit breaking capacity I _{cn} under 230V AC according IEC60898-1 | 10 kA |
| Rated short circuit breaking capacity I _{cn} under 400V AC according IEC60898-1 | 10 kA |
| 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 | 10 kA |
| Rated ultimate short-circuit breaking capacity I _{cu} under 240V AC IEC 60947-2 | 10 kA |
| Rated ultimate short-circuit breaking capacity I _{cu} under 400V AC IEC 60947-2 | 10 kA |
| Rated ultimate short-circuit breaking capacity I _{cu} under 415V AC IEC 60947-2 | 10 kA |
| Electric current / temperature | |
| Rating current 0°C | 124 A |
| Rating current 5°C | 120 A |
| Rating current 10°C | 116 A |
| Rating current 15°C | 112 A |
| Rating current 20°C | 108 A |
| Rating current 25°C | 104 A |
| Rating current 30°C | 100 A |
| Rating current 35°C | 96.6 A |
| Rating current 40°C | 93.1 A |
| Rating current 45°C | 89.4 A |
| Rating current 50°C | 85.6 A |
| Rating current 55°C | 81.6 A |
| Rating current 60°C | 77.5 A |
| Current correction factors | |
| Correction factor of rating current for 2 devices placed side-by-side | 1 |
| Correction factor of rating current for 3 devices placed side-by-side | 0.95 |
| Correction factor of rating current for 4 and 5 devices placed side-by-side | 0.9 |
| Correction factor of rating current for 6 devices placed side-by-side | 0.85 |
| Dimensions | |
| Depth of installed product | 70 mm |
| Height of installed product | 90 mm |

Width of installed product 106 mm

Frequency

Frequency 50 to 60 Hz

Power

Total power loss under IN 28.1 W

Power loss per pole at In 7.74 W

Endurance

Electric endurance in number of cycles 4000

Number of mechanical operations 20000

Installation, mounting

Type of top connection for modular devices with screw

Tightening torque 3,5 to 5Nm

Type of top rail clip for modular devices Plastic

Type of bottom rail clip for modular devices plastic

Type of Bottom Connection for modular devices with screw

Top removability for modular devices Yes

Bottom removability for modular devices Yes

Connection

Connection cross-section at output with screw, for flexible conductor 1 / 50 mm²

Connection cross-section at output with screw, for massive conductor 1 / 70 mm²

Connection cross-section for rigid conductor, upstream terminals with screws 1 / 70 mm²

Connection cross-section of the access with screws, with flexible conductor 1 / 50 mm²

Connection cross-section of input and output with screws, for massive conductors 1 / 70 mm²

Connection cross section of access and exit with screws, for flexible conductor 1 / 50 mm²

Type of connection terminal with tightening compensation system

Standards

Standard text EN 60898-1 ; IEC 60947-2

Safety

Protection index IP IP20

REACH conform Yes

RoHS conform Yes

Halogen free No

Use conditions

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

Class of energy limitation I²t 3

Altitude 2000 m

Air humidity protection for all climates

