



HMF399T

## MCB 3P 10kA C-125A 4.5M

### Technical properties

#### Architecture

|                           |     |
|---------------------------|-----|
| Number of protected poles | 3   |
| Number of poles           | 3 P |
| Type of pole              | 3 P |
| Curve                     | C   |

#### Functions

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

#### Configuration

|                   |     |
|-------------------|-----|
| Number of modules | 4.5 |
|-------------------|-----|

#### 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                                        | 125 A             |
| min/maxi threshold value of the AC thermal operation | 1.13 / 1.45 $I_n$ |
| Magnetic regulating current                          | 5 / 10 $I_n$      |
| Rating current 40°C according to IEC 60947           | 125 A             |
| Rating current 45°C according to IEC 60947           | 122 A             |
| Rating current 50°C according to IEC 60947           | 119 A             |
| Rating current 55°C according to IEC 60947           | 115.7 A           |
| Rating current 60°C according to IEC 60947           | 112 A             |
| Rating current 65°C according to IEC 60947           | 109.1 A           |
| Rating current 70°C according to IEC 60947           | 105.6 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 Icn under 230V AC according IEC60898-1 | 10 kA  |
| Rated short circuit breaking capacity Icn under 400V AC according IEC60898-1 | 10 kA  |
| Rated service breaking capacity Ics AC according IEC 60947-2                 | 75 %   |
| Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 | 10 kA  |
| Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 | 10 kA  |
| Rated ultimate short-circuit breaking capacity Icu under 400V AC IEC 60947-2 | 10 kA  |
| Rated ultimate short-circuit breaking capacity Icu under 415V AC IEC 60947-2 | 10 kA  |

#### Electric current / temperature

|                     |         |
|---------------------|---------|
| Rating current 30°C | 125 A   |
| Rating current 35°C | 122 A   |
| Rating current 40°C | 119 A   |
| Rating current 45°C | 115.7 A |
| Rating current 50°C | 112 A   |
| Rating current 55°C | 109.1 A |
| Rating current 60°C | 105.6 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  | 80 mm |

#### Frequency

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

#### Power

|                           |         |
|---------------------------|---------|
| Total power loss under IN | 34.93 W |
| Power loss per pole at In | 12 W    |

#### Endurance

|                                        |       |
|----------------------------------------|-------|
| Electric endurance in number of cycles | 4000  |
| Number of mechanical operations        | 20000 |

#### Installation, mounting

Subject to technical modifications

|                                               |            |
|-----------------------------------------------|------------|
| Type of top connection for modular devices    | with screw |
| 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 mm <sup>2</sup> |
| Connection cross-section at output with screw, for massive conductor             | 1 / 70 mm <sup>2</sup> |
| Connection cross-section for rigid conductor, upstream terminals with screws     | 1 / 70 mm <sup>2</sup> |
| Connection cross-section of the access with screws, with flexible conductor      | 1 / 50 mm <sup>2</sup> |
| Connection cross-section of input and output with screws, for massive conductors | 1 / 70 mm <sup>2</sup> |
| Connection cross section of access and exit with screws, for flexible conductor  | 1 / 50 mm <sup>2</sup> |

#### Standards

|                         |                                           |
|-------------------------|-------------------------------------------|
| Standard text           | EN 60898-1 ; IEC 60947-2 ; AS/NZS 60898-1 |
| European directive WEEE | concerned                                 |

#### 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 I <sup>2</sup> t              | 3      |
| Altitude                                                 | 2000 m |

#### temperatur

|                            |       |
|----------------------------|-------|
| Temperature of calibration | 30 °C |
|----------------------------|-------|