



MT120A

## MCB 1P 6kA B-20A 1M

### Technical characteristics

#### Architecture

|                           |     |
|---------------------------|-----|
| Number of protected poles | 1   |
| Number of poles           | 1 P |
| Type of pole              | 1 P |

#### Functions

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

#### Configuration

|                   |   |
|-------------------|---|
| Number of modules | 1 |
|-------------------|---|

#### 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 | 6 kA        |
| Rated operational voltage $U_e$  | 230 / 400 V |
| Frequency  | 50/60 Hz    |

#### Voltage

|                                 |        |
|---------------------------------|--------|
| Rated insulation voltage        | 500 V  |
| Rated impulse withstand voltage | 4000 V |

#### Electric current

|   |                   |
|---|-------------------|
| Rated current   | 20 A              |
| Rated service breaking capacity $I_{cs}$ AC according IEC 60898-1                 | 6 kA              |
| min/maxi threshold value of the AC thermal operation                              | 1.13 / 1.45 $I_n$ |
| Magnetic regulating current   | 3 / 5 $I_n$       |
| min/maxi threshold value of the DC magnetic operation                             | 3 / 7.5 $I_n$     |
| min/maxi threshold value of the DC thermal operation                              | 1.13 / 1.45 $I_n$ |
| Breaking capacity on 1 pole for IT 400V NF 60947-2                                | 3 kA              |
| Rated short circuit breaking capacity $I_{cn}$ under 230V AC according IEC60898-1 | 6 kA              |
| Rated ultimate short-circuit breaking capacity $I_{cu}$ under 415V AC IEC 60947-2 | 10 kA             |

**Electric current / temperature**

|                      |        |
|----------------------|--------|
| Rating current -25°C | 23.8 A |
| Rating current -20°C | 23.5 A |
| Rating current -15°C | 23.2 A |
| Rating current -10°C | 22.8 A |
| Rating current -5°C  | 22.5 A |
| Rating current 0°C   | 22.2 A |
| Rating current 5°C   | 21.8 A |
| Rating current 10°C  | 21.5 A |
| Rating current 15°C  | 21.1 A |
| Rating current 20°C  | 20.7 A |
| Rating current 25°C  | 20.4 A |
| Rating current 30°C  | 20 A   |
| Rating current 35°C  | 19.6 A |
| Rating current 40°C  | 19.2 A |
| Rating current 45°C  | 18.8 A |
| Rating current 50°C  | 18.4 A |
| Rating current 55°C  | 18 A   |
| Rating current 60°C  | 17.6 A |
| Rating current 65°C  | 17.2 A |
| Rating current 70°C  | 16.8 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 |
| Correction factor of magnetic tripping with 100 Hz                          | 1.1  |
| Correction factor of magnetic tripping with 200 Hz                          | 1.2  |
| Correction factor of magnetic tripping with 400 Hz                          | 1.5  |
| Correction factor of magnetic tripping with 60 Hz                           | 1    |

**Dimensions**

|                             |         |
|-----------------------------|---------|
| Depth of installed product  | 68 mm   |
| Height of installed product | 83 mm   |
| Width of installed product  | 17.5 mm |

**Frequency**

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

**Power**

|                           |       |
|---------------------------|-------|
| Total power loss under IN | 2.7 W |
| Power loss per pole at In | 2.7 W |

**Endurance**

|  |       |
|--|-------|
| Electric endurance in number of cycles | 10000 |
| Number of mechanical operations        | 20000 |

**Installation, mounting**

|   |            |
|---|------------|
| Type of top connection for modular devices    | with screw |
| Tightening torque                             | 2,8Nm      |
| Type of top rail clip for modular devices     | NA         |
| Type of bottom rail clip for modular devices  | metallic   |
| Type of Bottom Connection for modular devices | Blconnect  |
| Top removability for modular devices          | No         |
| Bottom removability for modular devices       | No         |

**Connection**

|  |                        |
|--|------------------------|
| Connection cross-section of input and output with screws, for massive conductors | 1 / 35 mm <sup>2</sup> |
| Connection cross section of access and exit with screws, for flexible conductor  | 1 / 25 mm <sup>2</sup> |

**Standards**

|                         |               |
|-------------------------|---------------|
| Standard text           | EN 60898-1    |
| European directive WEEE | not concerned |

**Use conditions**

|   |             |
|---|-------------|
| Operating temperature                       | -25...70 °C |
| Class of energy limitation I <sup>2</sup> t | 3           |
| Altitude                                    | 2000 m      |
| Storage/transport temperature               | -25...80 °C |