



## MCB 1P 10kA B-63A 1M

NBN163

### Architecture

|                           |                 |
|---------------------------|-----------------|
| Neutral position          | without neutral |
| Number of protected poles | 1               |
| Number of poles           | 1 P             |
| Type of pole              | 1 P             |
| Curve                     | B               |

### Connectivity

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

### Main electrical features

|                                 |           |
|---------------------------------|-----------|
| Frequency                       | 50/60 Hz  |
| Type of supply voltage          | AC        |
| Rated operational voltage $U_e$ | 230/400 V |

### Voltage

|  |        |
|--|--------|
| Minimum threshold voltage ( $U_e$ min) | 12 V   |
| Rated insulation voltage               | 500 V  |
| Rated impulse withstand voltage        | 6000 V |

### Electric current

|   |                 |
|---|-----------------|
| Breaking capacity on 1 pole with 400 V NF 60947-2     | 3 kA            |
| Magnetic regulating current at 40° C                  | 3/5 $I_n$       |
| min/maxi threshold value of the DC magnetic operation | 4/7 $I_n$       |
| min/maxi threshold value of the AC thermal operation  | 1,13/1,45 $I_n$ |
| min/maxi threshold value of the DC thermal operation  | 1,13/1,45 $I_n$ |

### Electric current / temperature

|                      |         |
|----------------------|---------|
| Rating current -15°C | 78,07 A |
| Rating current -20°C | 79,57 A |
| Rating current 0°C   | 73,54 A |
| Rating current 10°C  | 70,52 A |
| Rating current -10°C | 76,54 A |
| Rating current 15°C  | 69 A    |
| Rating current 20°C  | 67,47 A |

Technical Properties

|                      |         |
|----------------------|---------|
| Rating current 25°C  | 65,95 A |
| Rating current -25°C | 81,04 A |
| Rating current 30°C  | 63 A    |
| Rating current 35°C  | 62,03 A |
| Rating current 40°C  | 60,5 A  |
| Rating current 45°C  | 58,68 A |
| Rating current 5°C   | 72,03 A |
| Rating current -5°C  | 75,05 A |
| Rating current 50°C  | 58,27 A |
| Rating current 55°C  | 52,8 A  |
| Rating current 60°C  | 50,51 A |
| Rating current 65°C  | 48,12 A |
| Rating current 70°C  | 45,6 A  |

**Current correction factors**

|   |     |
|---|-----|
| 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                           | 1,1 |
| Correction factor of rating current for 2 devices placed 1 side-by-side     |     |
| Correction factor of rating current for 3 devices placed 0,95 side-by-side  |     |
| 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 0,85 side-by-side  |     |

**Power**

|                           |        |
|---------------------------|--------|
| Power loss per pole at In | 5,73 W |
| Total power loss under IN | 5,73 W |

**Endurance**

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

**Dimensions**

|                             |         |
|-----------------------------|---------|
| Depth of installed product  | 70 mm   |
| Height of installed product | 83 mm   |
| Width of installed product  | 17,5 mm |

**Installation, mounting**

|   |            |
|---|------------|
| Type of top connection for modular devices    | with screw |
| Tightening torque                             | 2,8Nm      |
| Type of bottom rail clip for modular devices  | plastic    |
| Type of top rail clip for modular devices     | NA         |
| Type of Bottom Connection for modular devices | Blconnect  |
| Bottom removability for modular devices       | yes        |
| Top removability for modular devices          | yes        |

#### Connection

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

#### Standards

|                         |            |
|-------------------------|------------|
| Standard text           | EN 60898-1 |
| European directive WEEE | concerned  |

#### Safety

|                     |      |
|---------------------|------|
| Protection index IP | IP20 |
|---------------------|------|

#### Use conditions

|  |                  |
|--|------------------|
| Degree of pollution according to IEC 60664 / IEC 60947-2 | 2                |
| Operating temperature                                    | -25 70 °C        |
| Class of energy limitation I <sup>2</sup> t              | 3                |
| Altitude   | 2000 m           |
| Storage temperature                                      | -25 to 80 °C     |
| Air humidity protection                                  | for all climates |
| Storage/transport temperature                            | -25 80 °C        |