



NBN163



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

### Technical properties

#### Architecture

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

#### 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 | 10 kA       |
| Rated operational voltage $U_e$  | 230 / 400 V |
| Type of supply voltage   | AC          |
| Frequency  | 50/60 Hz    |

#### Voltage

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

#### Electric current

|   |                   |
|---|-------------------|
| Rated current   | 63 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                                       | 3 / 5 $I_n$       |
| min/maxi threshold value of the DC magnetic operation             | 4 / 7 $I_n$       |
| 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 <sub>cn</sub> under 230V AC according IEC60898-1  | 10 kA   |
| Rated short circuit breaking capacity I <sub>cn</sub> under 240V AC according IEC 60898-1 | 10 kA   |
| <b>Electric current / temperature</b>   |         |
| Rating current -25°C  | 81.04 A |
| Rating current -20°C  | 79.57 A |
| Rating current -15°C  | 78.07 A |
| Rating current -10°C  | 76.54 A |
| Rating current -5°C   | 75.05 A |
| Rating current 0°C  | 73.54 A |
| Rating current 5°C  | 72.03 A |
| Rating current 10°C   | 70.52 A |
| Rating current 15°C   | 69 A    |
| Rating current 20°C   | 67.47 A |
| Rating current 25°C   | 65.95 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 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  |
| <b>Current correction factors</b>   |         |
| 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   | 1.1     |
| <b>Dimensions</b>   |         |
| Depth of installed product  | 70 mm   |
| Height of installed product   | 83 mm   |
| Width of installed product  | 17.5 mm |
| <b>Frequency</b>  |         |

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

#### Power

|                           |        |
|---------------------------|--------|
| Total power loss under IN | 5.73 W |
| Power loss per pole at In | 5.73 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                             | 2,8Nm      |
| Type of top rail clip for modular devices     | NA         |
| Type of bottom rail clip for modular devices  | plastic    |
| Type of Bottom Connection for modular devices | Blconnect  |
| Top removability for modular devices          | Yes        |
| Bottom removability for modular devices       | Yes        |

#### Connection

|  |                        |
|--|------------------------|
| Connection cross-sect. flexible conductor  | 1 / 25mm <sup>2</sup>  |
| Connection cross-sect. rigid cable   | 1 / 35mm <sup>2</sup>  |
| 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 | concerned  |

#### Safety

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

#### Use conditions

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