



NCN120

MCB 1P 10kA C-20A 1M

Architecture

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

Connectivity

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

Main electrical features

|                              |           |
|------------------------------|-----------|
| Type of supply voltage       | AC        |
| Rated operational voltage Ue | 240/415 V |

Voltage

|                                    |        |
|------------------------------------|--------|
| Minimum threshold voltage (Ue min) | 12 V   |
| Rated insulation voltage           | 500 V  |
| Max operating voltage              | 440 V  |
| Rated impulse withstand voltage    | 6000 V |

Electric current

|   |        |
|---|--------|
| Rated short circuit breaking capacity Icn under 230V AC according IEC60898-1  | 10 kA  |
| Rated short circuit breaking capacity Icn under 240V AC according IEC 60898-1 | 10 kA  |
| Rated service breaking capacity Ics AC according IEC 60898-1                  | 7,5 kA |
| Rated service breaking capacity Ics under 220V AC according IEC 60947-2       | 7,5 kA |
| Rated service breaking capacity Ics under 230V AC according IEC 60947-2       | 7,5 kA |
| Rated service breaking capacity Ics under 240V AC according IEC 60947-2       | 7,5 kA |
| Rated service breaking capacity Ics under 220V AC according IEC 60898-1       | 7,5 kA |
| Rated service breaking capacity Ics under 230V AC according IEC 60898-1       | 7,5 kA |

Technical Properties

|  |              |
|--|--------------|
| Rated service breaking capacity Ics under 240V AC according IEC 60898-1      | 7,5 kA       |
| Rated ultimate short-circuit breaking capacity Icu under 220V AC IEC 60947-2 | 15 kA        |
| Rated ultimate short-circuit breaking capacity Icu under 230V AC IEC 60947-2 | 15 kA        |
| Rated ultimate short-circuit breaking capacity Icu under 240V AC IEC 60947-2 | 15 kA        |
| Magnetic regulating current at 40° C   | 5/10 In      |
| min/maxi threshold value of the DC magnetic operation                        | 7/15 In      |
| min/maxi threshold value of the AC thermal operation                         | 1,13/1,45 In |
| min/maxi threshold value of the DC thermal operation                         | 1,13/1,45 In |

**Electric current / temperature**

|   |         |
|---|---------|
| Rating current -15°C                          | 24,24 A |
| Rating current -20°C                          | 24,66 A |
| Rating current 0°C                            | 22,91 A |
| Rating current 10°C                           | 21,98 A |
| Rating current -10°C                          | 23,8 A  |
| Rating current 25°C                           | 20,51 A |
| Rating current -25°C                          | 25,08 A |
| Rating current 30°C                           | 20 A    |
| Rating current 35°C                           | 19,47 A |
| Rating current 40°C                           | 18,93 A |
| Rating current 45°C                           | 18,37 A |
| Rating current 5°C                            | 22,45 A |
| Rating current -5°C                           | 23,36 A |
| Rating current 50°C                           | 17,8 A  |
| Rating current 55°C                           | 17,2 A  |
| Rating current 60°C                           | 16,58 A |
| Rating current 65°C                           | 15,94 A |
| Rating current 70°C                           | 15,28 A |
| Rating current 0°C according to IEC 60947-2   | 25,75 A |
| Rating current 10°C according to IEC 60947-2  | 24,71 A |
| Rating current -10°C according to IEC 60947-2 | 26,75 A |
| Rating current 150°C according to IEC 60947-2 | 24,17 A |
| Rating current -15°C according to IEC 60947-2 | 27,24 A |
| Rating current 20°C according to IEC 60947-2  | 23,62 A |
| Rating current -20°C according to IEC 60947-2 | 27,72 A |
| Rating current 25°C according to IEC 60947-2  | 23,06 A |
| Rating current -25°C according to IEC 60947-2 | 28,19 A |
| Rating current 30°C according to IEC 60947-2  | 22,48 A |
| Rating current 35°C according to IEC 60947-2  | 21,88 A |
| Rating current 40°C according to IEC 60947-2  | 21,28 A |
| Rating current 45°C according to IEC 60947-2  | 20,65 A |
| Rating current 5°C according to IEC 60947-2   | 25,24 A |
| Rating current -5°C according to IEC 60947-2  | 26,26 A |
| Rating current 50°C according to IEC 60947-2  | 20 A    |
| Rating current 55°C according to IEC 60947-2  | 19,33 A |
| Rating current 60°C according to IEC 60947-2  | 18,64 A |
| Rating current 65°C according to IEC 60947-2  | 17,92 A |
| Rating current 70°C according to IEC 60947-2  | 17,17 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 $I_n$                                  | 2,56 W |
| Maximum power loss per pole according to the product standard | 4,5 W  |
| Total power loss under $I_N$                                  | 2,56 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        |
| Suitable for flush-mounting                   | yes        |

#### Connection

|  |                      |
|--|----------------------|
| Upstream cage clamp delivery status  | opened               |
| Downstream cage clamp delivery status  | closed               |
| Connection cross-section at output with screw, for flexible conductor        | 1/25 mm <sup>2</sup> |
| Connection cross-section of the access with screws, with flexible conductor  | 1/25 mm <sup>2</sup> |
| Connection cross-section at output with screw, for massive conductor         | 1/35 mm <sup>2</sup> |
| Connection cross-section for rigid conductor, upstream terminals with screws | 1/35 mm <sup>2</sup> |

#### Equipment

|                     |     |
|---------------------|-----|
| Can be accessorized | yes |
|---------------------|-----|

#### 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            |
| Class of energy limitation I <sup>2</sup> t              | 3            |
| Altitude   | 2000 m       |
| Storage temperature                                      | -25 to 80 °C |

#### temperatur

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