

# RCBOs Ex9BL-H, 10 kA



- Residual Current circuit Breakers with Overload protection according to EN 61009
- Rated breaking capacity  $I_{cn}$  10 kA
- 1+N-pole version
- Rated residual current 30, 100, 300 mA
- Rated currents up to 40 A
- B and C tripping characteristics of installed circuit breaker
- AC and A type of RCBO
- 2-module width
- Suitable for applications from -25 to +40°C

Ex9BL residual current circuit breakers are suitable for domestic as well as industrial applications. They are based on combination of residual current device with permanent magnet principle and circuit breaker with thermal overload release and magnetic short circuit current release. It brings the advantage of voltage independent function of the residual current device. Adequate voltage is only necessary when testing the RCBO with the T test button. Magnetic RCBOs should be tested regularly with a period of one month.

## Type Key

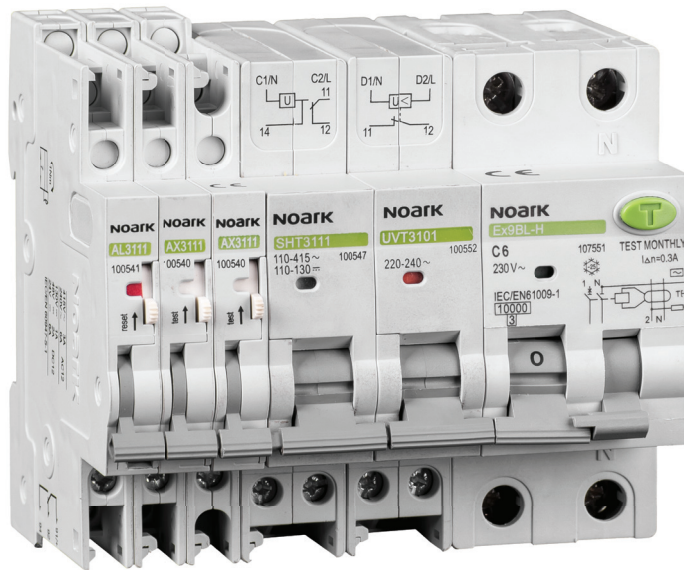
|                |          |                         |       |                                |               |                                |                           |
|----------------|----------|-------------------------|-------|--------------------------------|---------------|--------------------------------|---------------------------|
| Ex9            | BL       | -H                      | 1PN   | B                              | 16A           | A                              | 30mA                      |
| ↓              | ↓        | ↓                       | ↓     | ↓                              | ↓             | ↓                              | ↓                         |
| Product family | Product  | Rated breaking capacity | Poles | Tripping characteristic of MCB | Rated current | Sensitivity to type of current | Rated residual current    |
| Ex9            | BL: RCBO | -H: 10 kA               | 1P+N  | B<br>C                         | 6 — 40 A      | _: AC<br>A: A                  | 30 mA<br>100 mA<br>300 mA |

## Certification marks



# RCBOs Ex9BL-H, 10 kA

## Accessories



Auxiliary or signal contacts  
**AX, AL, AXL**  
Up to 3 units

Voltage or trip releases  
**SHT, UVT**  
Up to 2 units

**RCBO  
Ex9BL**  
2-module width

Auxiliary contacts AX3111, AX3122

Alarm contact AL3111

Auxiliary and alarm contact AXL31

Shunt trip releases SHT31, SHT3111

Undervoltage releases UVT31, UVT3101, UVT3110

All accessories are mounted to the RCBOs Ex9BL from the left side and are identical for devices of the whole line Ex9B, Ex9PN and Ex9IP.

# RCBOs Ex9BL-H, 10 kA

## AC type, characteristic B

- AC type of residual current circuit breaker sensitive on residual AC current
- B characteristic of installed circuit breaker
- Without time delay
- Surge current-proof 3000 A
- Suitable for protection of people in case of direct and indirect contact with live parts and exposed conductive parts during a fault, respectively
- Selective with upstream installed S or S+A type RCCB



| Rated current | Rated residual current | MCB tripping char. | Article No. | Type                   | Packing |
|---------------|------------------------|--------------------|-------------|------------------------|---------|
| 6 A           | 30 mA                  | B                  | 107381      | Ex9BL-H 1P+N B6 30mA   | 1/6/72  |
| 10 A          | 30 mA                  | B                  | 107382      | Ex9BL-H 1P+N B10 30mA  | 1/6/72  |
| 13 A          | 30 mA                  | B                  | 107383      | Ex9BL-H 1P+N B13 30mA  | 1/6/72  |
| 16 A          | 30 mA                  | B                  | 107384      | Ex9BL-H 1P+N B16 30mA  | 1/6/72  |
| 20 A          | 30 mA                  | B                  | 107385      | Ex9BL-H 1P+N B20 30mA  | 1/6/72  |
| 25 A          | 30 mA                  | B                  | 107386      | Ex9BL-H 1P+N B25 30mA  | 1/6/72  |
| 32 A          | 30 mA                  | B                  | 107387      | Ex9BL-H 1P+N B32 30mA  | 1/6/72  |
| 40 A          | 30 mA                  | B                  | 107388      | Ex9BL-H 1P+N B40 30mA  | 1/6/72  |
| 6 A           | 100 mA                 | B                  | 107461      | Ex9BL-H 1P+N B6 100mA  | 1/6/72  |
| 10 A          | 100 mA                 | B                  | 107462      | Ex9BL-H 1P+N B10 100mA | 1/6/72  |
| 13 A          | 100 mA                 | B                  | 107463      | Ex9BL-H 1P+N B13 100mA | 1/6/72  |
| 16 A          | 100 mA                 | B                  | 107464      | Ex9BL-H 1P+N B16 100mA | 1/6/72  |
| 20 A          | 100 mA                 | B                  | 107465      | Ex9BL-H 1P+N B20 100mA | 1/6/72  |
| 25 A          | 100 mA                 | B                  | 107466      | Ex9BL-H 1P+N B25 100mA | 1/6/72  |
| 32 A          | 100 mA                 | B                  | 107467      | Ex9BL-H 1P+N B32 100mA | 1/6/72  |
| 40 A          | 100 mA                 | B                  | 107468      | Ex9BL-H 1P+N B40 100mA | 1/6/72  |
| 6 A           | 300 mA                 | B                  | 107541      | Ex9BL-H 1P+N B6 300mA  | 1/6/72  |
| 10 A          | 300 mA                 | B                  | 107542      | Ex9BL-H 1P+N B10 300mA | 1/6/72  |
| 13 A          | 300 mA                 | B                  | 107543      | Ex9BL-H 1P+N B13 300mA | 1/6/72  |
| 16 A          | 300 mA                 | B                  | 107544      | Ex9BL-H 1P+N B16 300mA | 1/6/72  |
| 20 A          | 300 mA                 | B                  | 107545      | Ex9BL-H 1P+N B20 300mA | 1/6/72  |
| 25 A          | 300 mA                 | B                  | 107546      | Ex9BL-H 1P+N B25 300mA | 1/6/72  |
| 32 A          | 300 mA                 | B                  | 107547      | Ex9BL-H 1P+N B32 300mA | 1/6/72  |
| 40 A          | 300 mA                 | B                  | 107548      | Ex9BL-H 1P+N B40 300mA | 1/6/72  |

# RCBOs Ex9BL-H, 10 kA

## AC type, characteristic C

- AC type of residual current circuit breaker sensitive on residual AC current
- C characteristic of installed circuit breaker
- Without time delay
- Surge current-proof 3000 A
- Suitable for protection of people in case of direct and indirect contact with live parts and exposed conductive parts during a fault, respectively
- Selective with upstream installed S or S+A type RCCB



| Rated current | Rated residual current | MCB tripping char. | Article No. | Type                   | Packing |
|---------------|------------------------|--------------------|-------------|------------------------|---------|
| 6 A           | 30 mA                  | C                  | 107391      | Ex9BL-H 1P+N C6 30mA   | 1/6/72  |
| 10 A          | 30 mA                  | C                  | 107392      | Ex9BL-H 1P+N C10 30mA  | 1/6/72  |
| 13 A          | 30 mA                  | C                  | 107393      | Ex9BL-H 1P+N C13 30mA  | 1/6/72  |
| 16 A          | 30 mA                  | C                  | 107394      | Ex9BL-H 1P+N C16 30mA  | 1/6/72  |
| 20 A          | 30 mA                  | C                  | 107395      | Ex9BL-H 1P+N C20 30mA  | 1/6/72  |
| 25 A          | 30 mA                  | C                  | 107396      | Ex9BL-H 1P+N C25 30mA  | 1/6/72  |
| 32 A          | 30 mA                  | C                  | 107397      | Ex9BL-H 1P+N C32 30mA  | 1/6/72  |
| 40 A          | 30 mA                  | C                  | 107398      | Ex9BL-H 1P+N C40 30mA  | 1/6/72  |
| 6 A           | 100 mA                 | C                  | 107471      | Ex9BL-H 1P+N C6 100mA  | 1/6/72  |
| 10 A          | 100 mA                 | C                  | 107472      | Ex9BL-H 1P+N C10 100mA | 1/6/72  |
| 13 A          | 100 mA                 | C                  | 107473      | Ex9BL-H 1P+N C13 100mA | 1/6/72  |
| 16 A          | 100 mA                 | C                  | 107474      | Ex9BL-H 1P+N C16 100mA | 1/6/72  |
| 20 A          | 100 mA                 | C                  | 107475      | Ex9BL-H 1P+N C20 100mA | 1/6/72  |
| 25 A          | 100 mA                 | C                  | 107476      | Ex9BL-H 1P+N C25 100mA | 1/6/72  |
| 32 A          | 100 mA                 | C                  | 107477      | Ex9BL-H 1P+N C32 100mA | 1/6/72  |
| 40 A          | 100 mA                 | C                  | 107478      | Ex9BL-H 1P+N C40 100mA | 1/6/72  |
| 6 A           | 300 mA                 | C                  | 107551      | Ex9BL-H 1P+N C6 300mA  | 1/6/72  |
| 10 A          | 300 mA                 | C                  | 107552      | Ex9BL-H 1P+N C10 300mA | 1/6/72  |
| 13 A          | 300 mA                 | C                  | 107553      | Ex9BL-H 1P+N C13 300mA | 1/6/72  |
| 16 A          | 300 mA                 | C                  | 107554      | Ex9BL-H 1P+N C16 300mA | 1/6/72  |
| 20 A          | 300 mA                 | C                  | 107555      | Ex9BL-H 1P+N C20 300mA | 1/6/72  |
| 25 A          | 300 mA                 | C                  | 107556      | Ex9BL-H 1P+N C25 300mA | 1/6/72  |
| 32 A          | 300 mA                 | C                  | 107557      | Ex9BL-H 1P+N C32 300mA | 1/6/72  |
| 40 A          | 300 mA                 | C                  | 107558      | Ex9BL-H 1P+N C40 300mA | 1/6/72  |

# RCBOs Ex9BL-H, 10 kA

## A type, characteristic B

- A type of residual current circuit breaker sensitive on residual AC and pulsating DC current
- B characteristic of installed circuit breaker
- Without time delay
- Surge current-proof 3000 A
- Suitable for protection of people in case of direct and indirect contact with live parts and exposed conductive parts during a fault, respectively
- Selective with upstream installed S or S+A type RCCB



| Rated current | Rated residual current | MCB tripping char. | Article No. | Type                     | Packing |
|---------------|------------------------|--------------------|-------------|--------------------------|---------|
| 6 A           | 30 mA                  | B                  | 107401      | Ex9BL-H 1P+N B6 A 30mA   | 1/6/72  |
| 10 A          | 30 mA                  | B                  | 107402      | Ex9BL-H 1P+N B10 A 30mA  | 1/6/72  |
| 13 A          | 30 mA                  | B                  | 107403      | Ex9BL-H 1P+N B13 A 30mA  | 1/6/72  |
| 16 A          | 30 mA                  | B                  | 107404      | Ex9BL-H 1P+N B16 A 30mA  | 1/6/72  |
| 20 A          | 30 mA                  | B                  | 107405      | Ex9BL-H 1P+N B20 A 30mA  | 1/6/72  |
| 25 A          | 30 mA                  | B                  | 107406      | Ex9BL-H 1P+N B25 A 30mA  | 1/6/72  |
| 32 A          | 30 mA                  | B                  | 107407      | Ex9BL-H 1P+N B32 A 30mA  | 1/6/72  |
| 40 A          | 30 mA                  | B                  | 107408      | Ex9BL-H 1P+N B40 A 30mA  | 1/6/72  |
| 6 A           | 100 mA                 | B                  | 107481      | Ex9BL-H 1P+N B6 A 100mA  | 1/6/72  |
| 10 A          | 100 mA                 | B                  | 107482      | Ex9BL-H 1P+N B10 A 100mA | 1/6/72  |
| 13 A          | 100 mA                 | B                  | 107483      | Ex9BL-H 1P+N B13 A 100mA | 1/6/72  |
| 16 A          | 100 mA                 | B                  | 107484      | Ex9BL-H 1P+N B16 A 100mA | 1/6/72  |
| 20 A          | 100 mA                 | B                  | 107485      | Ex9BL-H 1P+N B20 A 100mA | 1/6/72  |
| 25 A          | 100 mA                 | B                  | 107486      | Ex9BL-H 1P+N B25 A 100mA | 1/6/72  |
| 32 A          | 100 mA                 | B                  | 107487      | Ex9BL-H 1P+N B32 A 100mA | 1/6/72  |
| 40 A          | 100 mA                 | B                  | 107488      | Ex9BL-H 1P+N B40 A 100mA | 1/6/72  |
| 6 A           | 300 mA                 | B                  | 107561      | Ex9BL-H 1P+N B6 A 300mA  | 1/6/72  |
| 10 A          | 300 mA                 | B                  | 107562      | Ex9BL-H 1P+N B10 A 300mA | 1/6/72  |
| 13 A          | 300 mA                 | B                  | 107563      | Ex9BL-H 1P+N B13 A 300mA | 1/6/72  |
| 16 A          | 300 mA                 | B                  | 107564      | Ex9BL-H 1P+N B16 A 300mA | 1/6/72  |
| 20 A          | 300 mA                 | B                  | 107565      | Ex9BL-H 1P+N B20 A 300mA | 1/6/72  |
| 25 A          | 300 mA                 | B                  | 107566      | Ex9BL-H 1P+N B25 A 300mA | 1/6/72  |
| 32 A          | 300 mA                 | B                  | 107567      | Ex9BL-H 1P+N B32 A 300mA | 1/6/72  |
| 40 A          | 300 mA                 | B                  | 107568      | Ex9BL-H 1P+N B40 A 300mA | 1/6/72  |

# RCBOs Ex9BL-H, 10 kA

## A type, characteristic C

- A type of residual current circuit breaker sensitive on residual AC and pulsating DC current
- C characteristic of installed circuit breaker
- Without time delay
- Surge current-proof 3000 A
- Suitable for protection of people in case of direct and indirect contact with live parts and exposed conductive parts during a fault, respectively
- Selective with upstream installed S or S+A type RCCB



| Rated current | Rated residual current | MCB tripping char. | Article No. | Type                     | Packing |
|---------------|------------------------|--------------------|-------------|--------------------------|---------|
| 6 A           | 30 mA                  | C                  | 107411      | Ex9BL-H 1P+N C6 A 30mA   | 1/6/72  |
| 10 A          | 30 mA                  | C                  | 107412      | Ex9BL-H 1P+N C10 A 30mA  | 1/6/72  |
| 13 A          | 30 mA                  | C                  | 107413      | Ex9BL-H 1P+N C13 A 30mA  | 1/6/72  |
| 16 A          | 30 mA                  | C                  | 107414      | Ex9BL-H 1P+N C16 A 30mA  | 1/6/72  |
| 20 A          | 30 mA                  | C                  | 107415      | Ex9BL-H 1P+N C20 A 30mA  | 1/6/72  |
| 25 A          | 30 mA                  | C                  | 107416      | Ex9BL-H 1P+N C25 A 30mA  | 1/6/72  |
| 32 A          | 30 mA                  | C                  | 107417      | Ex9BL-H 1P+N C32 A 30mA  | 1/6/72  |
| 40 A          | 30 mA                  | C                  | 107418      | Ex9BL-H 1P+N C40 A 30mA  | 1/6/72  |
| 6 A           | 100 mA                 | C                  | 107491      | Ex9BL-H 1P+N C6 A 100mA  | 1/6/72  |
| 10 A          | 100 mA                 | C                  | 107492      | Ex9BL-H 1P+N C10 A 100mA | 1/6/72  |
| 13 A          | 100 mA                 | C                  | 107493      | Ex9BL-H 1P+N C13 A 100mA | 1/6/72  |
| 16 A          | 100 mA                 | C                  | 107494      | Ex9BL-H 1P+N C16 A 100mA | 1/6/72  |
| 20 A          | 100 mA                 | C                  | 107495      | Ex9BL-H 1P+N C20 A 100mA | 1/6/72  |
| 25 A          | 100 mA                 | C                  | 107496      | Ex9BL-H 1P+N C25 A 100mA | 1/6/72  |
| 32 A          | 100 mA                 | C                  | 107497      | Ex9BL-H 1P+N C32 A 100mA | 1/6/72  |
| 40 A          | 100 mA                 | C                  | 107498      | Ex9BL-H 1P+N C40 A 100mA | 1/6/72  |
| 6 A           | 300 mA                 | C                  | 107571      | Ex9BL-H 1P+N C6 A 300mA  | 1/6/72  |
| 10 A          | 300 mA                 | C                  | 107572      | Ex9BL-H 1P+N C10 A 300mA | 1/6/72  |
| 13 A          | 300 mA                 | C                  | 107573      | Ex9BL-H 1P+N C13 A 300mA | 1/6/72  |
| 16 A          | 300 mA                 | C                  | 107574      | Ex9BL-H 1P+N C16 A 300mA | 1/6/72  |
| 20 A          | 300 mA                 | C                  | 107575      | Ex9BL-H 1P+N C20 A 300mA | 1/6/72  |
| 25 A          | 300 mA                 | C                  | 107576      | Ex9BL-H 1P+N C25 A 300mA | 1/6/72  |
| 32 A          | 300 mA                 | C                  | 107577      | Ex9BL-H 1P+N C32 A 300mA | 1/6/72  |
| 40 A          | 300 mA                 | C                  | 107578      | Ex9BL-H 1P+N C40 A 300mA | 1/6/72  |

## Information sticker

- Sticker with information about regular monthly testing
- Languages EN, CZ, SK, FR, RU, PL, DE, RO
- In a scope of delivery of all magnetic RCCBs and RCBOs NOARK, spare part

| Description         | Languages                      | Article No. | Type | Packing |
|---------------------|--------------------------------|-------------|------|---------|
| Information sticker | EN, CZ, SK, FR, RU, PL, DE, RO | 101445      | YS31 | 1       |

# RCBOs Ex9BL-N, 6 kA



- Residual Current circuit Breakers with Overload protection according to EN 61009
- Rated breaking capacity  $I_{cn}$  6 kA
- 1+N-pole version
- Rated residual current 30, 100, 300 mA
- Rated currents up to 40 A
- B and C tripping characteristics of installed circuit breaker
- AC and A type of RCBO
- 2-module width
- Suitable for applications from -25 to +40°C

Ex9BL residual current circuit breakers are suitable for domestic as well as industrial applications. They are based on combination of residual current device with permanent magnet principle and circuit breaker with thermal overload release and magnetic short circuit current release. It brings the advantage of voltage independent function of the residual current device. Adequate voltage is only necessary when testing the RCBO with the T test button. Magnetic RCBOs should be tested regularly with a period of one month.

## Type Key

|                |          |                         |       |                                |               |                                |                           |
|----------------|----------|-------------------------|-------|--------------------------------|---------------|--------------------------------|---------------------------|
| Ex9            | BL       | -N                      | 1PN   | B                              | 16A           | A                              | 30mA                      |
| ↓              | ↓        | ↓                       | ↓     | ↓                              | ↓             | ↓                              | ↓                         |
| Product family | Product  | Rated breaking capacity | Poles | Tripping characteristic of MCB | Rated current | Sensitivity to type of current | Rated residual current    |
| Ex9            | BL: RCBO | -N: 6 kA                | 1P+N  | B<br>C                         | 6 — 40 A      | _: AC<br>A: A                  | 30 mA<br>100 mA<br>300 mA |

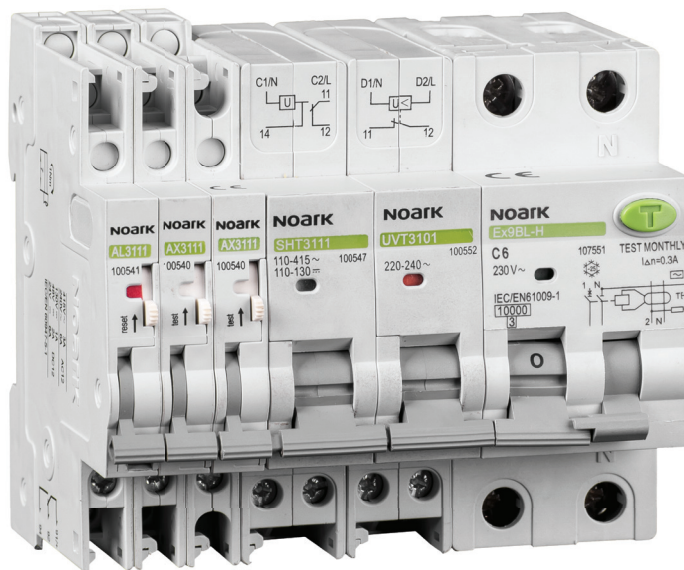
## Certification marks





# RCBOs Ex9BL-N, 6 kA

## Accessories



Auxiliary or signal contacts  
**AX, AL, AXL**  
Up to 3 units

Voltage or trip releases  
**SHT, UVT**  
Up to 2 units

**RCBO**  
**Ex9BL**  
2-module width

Auxiliary contacts AX3111, AX3122

Alarm contact AL3111

Auxiliary and alarm contact AXL31

Shunt trip releases SHT31, SHT3111

Undervoltage releases UVT31, UVT3101, UVT3110

All accessories are mounted to the RCBOs Ex9BL from the left side and are identical for devices of the whole line Ex9B, Ex9PN and Ex9IP.



# RCBOs Ex9BL-N, 6 kA

## AC type, characteristic B

- AC type of residual current circuit breaker sensitive on residual AC current
- B characteristic of installed circuit breaker
- Without time delay
- Surge current-proof 3000 A
- Suitable for protection of people in case of direct and indirect contact with live parts and exposed conductive parts during a fault, respectively
- Selective with upstream installed S or S+A type RCCB



| Rated current | Rated residual current | MCB tripping char. | Article No. | Type                   | Packing |
|---------------|------------------------|--------------------|-------------|------------------------|---------|
| 6 A           | 30 mA                  | B                  | 107619      | Ex9BL-N 1P+N B6 30mA   | 1/6/72  |
| 10 A          | 30 mA                  | B                  | 107620      | Ex9BL-N 1P+N B10 30mA  | 1/6/72  |
| 13 A          | 30 mA                  | B                  | 107621      | Ex9BL-N 1P+N B13 30mA  | 1/6/72  |
| 16 A          | 30 mA                  | B                  | 107622      | Ex9BL-N 1P+N B16 30mA  | 1/6/72  |
| 20 A          | 30 mA                  | B                  | 107623      | Ex9BL-N 1P+N B20 30mA  | 1/6/72  |
| 25 A          | 30 mA                  | B                  | 107624      | Ex9BL-N 1P+N B25 30mA  | 1/6/72  |
| 32 A          | 30 mA                  | B                  | 107625      | Ex9BL-N 1P+N B32 30mA  | 1/6/72  |
| 40 A          | 30 mA                  | B                  | 107626      | Ex9BL-N 1P+N B40 30mA  | 1/6/72  |
| 6 A           | 100 mA                 | B                  | 107651      | Ex9BL-N 1P+N B6 100mA  | 1/6/72  |
| 10 A          | 100 mA                 | B                  | 107652      | Ex9BL-N 1P+N B10 100mA | 1/6/72  |
| 13 A          | 100 mA                 | B                  | 107653      | Ex9BL-N 1P+N B13 100mA | 1/6/72  |
| 16 A          | 100 mA                 | B                  | 107654      | Ex9BL-N 1P+N B16 100mA | 1/6/72  |
| 20 A          | 100 mA                 | B                  | 107655      | Ex9BL-N 1P+N B20 100mA | 1/6/72  |
| 25 A          | 100 mA                 | B                  | 107656      | Ex9BL-N 1P+N B25 100mA | 1/6/72  |
| 32 A          | 100 mA                 | B                  | 107657      | Ex9BL-N 1P+N B32 100mA | 1/6/72  |
| 40 A          | 100 mA                 | B                  | 107658      | Ex9BL-N 1P+N B40 100mA | 1/6/72  |
| 6 A           | 300 mA                 | B                  | 107683      | Ex9BL-N 1P+N B6 300mA  | 1/6/72  |
| 10 A          | 300 mA                 | B                  | 107684      | Ex9BL-N 1P+N B10 300mA | 1/6/72  |
| 13 A          | 300 mA                 | B                  | 107685      | Ex9BL-N 1P+N B13 300mA | 1/6/72  |
| 16 A          | 300 mA                 | B                  | 107686      | Ex9BL-N 1P+N B16 300mA | 1/6/72  |
| 20 A          | 300 mA                 | B                  | 107687      | Ex9BL-N 1P+N B20 300mA | 1/6/72  |
| 25 A          | 300 mA                 | B                  | 107688      | Ex9BL-N 1P+N B25 300mA | 1/6/72  |
| 32 A          | 300 mA                 | B                  | 107689      | Ex9BL-N 1P+N B32 300mA | 1/6/72  |
| 40 A          | 300 mA                 | B                  | 107690      | Ex9BL-N 1P+N B40 300mA | 1/6/72  |

# RCBOs Ex9BL-N, 6 kA

## AC type, characteristic C

- AC type of residual current circuit breaker sensitive on residual AC current
- C characteristic of installed circuit breaker
- Without time delay
- Surge current-proof 3000 A
- Suitable for protection of people in case of direct and indirect contact with live parts and exposed conductive parts during a fault, respectively
- Selective with upstream installed S or S+A type RCCB



| Rated current | Rated residual current | MCB tripping char. | Article No. | Type                   | Packing |
|---------------|------------------------|--------------------|-------------|------------------------|---------|
| 6 A           | 30 mA                  | C                  | 107627      | Ex9BL-N 1P+N C6 30mA   | 1/6/72  |
| 10 A          | 30 mA                  | C                  | 107628      | Ex9BL-N 1P+N C10 30mA  | 1/6/72  |
| 13 A          | 30 mA                  | C                  | 107629      | Ex9BL-N 1P+N C13 30mA  | 1/6/72  |
| 16 A          | 30 mA                  | C                  | 107630      | Ex9BL-N 1P+N C16 30mA  | 1/6/72  |
| 20 A          | 30 mA                  | C                  | 107631      | Ex9BL-N 1P+N C20 30mA  | 1/6/72  |
| 25 A          | 30 mA                  | C                  | 107632      | Ex9BL-N 1P+N C25 30mA  | 1/6/72  |
| 32 A          | 30 mA                  | C                  | 107633      | Ex9BL-N 1P+N C32 30mA  | 1/6/72  |
| 40 A          | 30 mA                  | C                  | 107634      | Ex9BL-N 1P+N C40 30mA  | 1/6/72  |
| 6 A           | 100 mA                 | C                  | 107659      | Ex9BL-N 1P+N C6 100mA  | 1/6/72  |
| 10 A          | 100 mA                 | C                  | 107660      | Ex9BL-N 1P+N C10 100mA | 1/6/72  |
| 13 A          | 100 mA                 | C                  | 107661      | Ex9BL-N 1P+N C13 100mA | 1/6/72  |
| 16 A          | 100 mA                 | C                  | 107662      | Ex9BL-N 1P+N C16 100mA | 1/6/72  |
| 20 A          | 100 mA                 | C                  | 107663      | Ex9BL-N 1P+N C20 100mA | 1/6/72  |
| 25 A          | 100 mA                 | C                  | 107664      | Ex9BL-N 1P+N C25 100mA | 1/6/72  |
| 32 A          | 100 mA                 | C                  | 107665      | Ex9BL-N 1P+N C32 100mA | 1/6/72  |
| 40 A          | 100 mA                 | C                  | 107666      | Ex9BL-N 1P+N C40 100mA | 1/6/72  |
| 6 A           | 300 mA                 | C                  | 107691      | Ex9BL-N 1P+N C6 300mA  | 1/6/72  |
| 10 A          | 300 mA                 | C                  | 107692      | Ex9BL-N 1P+N C10 300mA | 1/6/72  |
| 13 A          | 300 mA                 | C                  | 107693      | Ex9BL-N 1P+N C13 300mA | 1/6/72  |
| 16 A          | 300 mA                 | C                  | 107694      | Ex9BL-N 1P+N C16 300mA | 1/6/72  |
| 20 A          | 300 mA                 | C                  | 107695      | Ex9BL-N 1P+N C20 300mA | 1/6/72  |
| 25 A          | 300 mA                 | C                  | 107696      | Ex9BL-N 1P+N C25 300mA | 1/6/72  |
| 32 A          | 300 mA                 | C                  | 107697      | Ex9BL-N 1P+N C32 300mA | 1/6/72  |
| 40 A          | 300 mA                 | C                  | 107698      | Ex9BL-N 1P+N C40 300mA | 1/6/72  |

# RCBOs Ex9BL-N, 6 kA

## A type, characteristic B

- A type of residual current circuit breaker sensitive on residual AC and pulsating DC current
- B characteristic of installed circuit breaker
- Without time delay
- Surge current-proof 3000 A
- Suitable for protection of people in case of direct and indirect contact with live parts and exposed conductive parts during a fault, respectively
- Selective with upstream installed S or S+A type RCCB



| Rated current | Rated residual current | MCB tripping char. | Article No. | Type                     | Packing |
|---------------|------------------------|--------------------|-------------|--------------------------|---------|
| 6 A           | 30 mA                  | B                  | 107635      | Ex9BL-N 1P+N B6 A 30mA   | 1/6/72  |
| 10 A          | 30 mA                  | B                  | 107636      | Ex9BL-N 1P+N B10 A 30mA  | 1/6/72  |
| 13 A          | 30 mA                  | B                  | 107637      | Ex9BL-N 1P+N B13 A 30mA  | 1/6/72  |
| 16 A          | 30 mA                  | B                  | 107638      | Ex9BL-N 1P+N B16 A 30mA  | 1/6/72  |
| 20 A          | 30 mA                  | B                  | 107639      | Ex9BL-N 1P+N B20 A 30mA  | 1/6/72  |
| 25 A          | 30 mA                  | B                  | 107640      | Ex9BL-N 1P+N B25 A 30mA  | 1/6/72  |
| 32 A          | 30 mA                  | B                  | 107641      | Ex9BL-N 1P+N B32 A 30mA  | 1/6/72  |
| 40 A          | 30 mA                  | B                  | 107642      | Ex9BL-N 1P+N B40 A 30mA  | 1/6/72  |
| 6 A           | 100 mA                 | B                  | 107667      | Ex9BL-N 1P+N B6 A 100mA  | 1/6/72  |
| 10 A          | 100 mA                 | B                  | 107668      | Ex9BL-N 1P+N B10 A 100mA | 1/6/72  |
| 13 A          | 100 mA                 | B                  | 107669      | Ex9BL-N 1P+N B13 A 100mA | 1/6/72  |
| 16 A          | 100 mA                 | B                  | 107670      | Ex9BL-N 1P+N B16 A 100mA | 1/6/72  |
| 20 A          | 100 mA                 | B                  | 107671      | Ex9BL-N 1P+N B20 A 100mA | 1/6/72  |
| 25 A          | 100 mA                 | B                  | 107672      | Ex9BL-N 1P+N B25 A 100mA | 1/6/72  |
| 32 A          | 100 mA                 | B                  | 107673      | Ex9BL-N 1P+N B32 A 100mA | 1/6/72  |
| 40 A          | 100 mA                 | B                  | 107674      | Ex9BL-N 1P+N B40 A 100mA | 1/6/72  |
| 6 A           | 300 mA                 | B                  | 107699      | Ex9BL-N 1P+N B6 A 300mA  | 1/6/72  |
| 10 A          | 300 mA                 | B                  | 107700      | Ex9BL-N 1P+N B10 A 300mA | 1/6/72  |
| 13 A          | 300 mA                 | B                  | 107701      | Ex9BL-N 1P+N B13 A 300mA | 1/6/72  |
| 16 A          | 300 mA                 | B                  | 107702      | Ex9BL-N 1P+N B16 A 300mA | 1/6/72  |
| 20 A          | 300 mA                 | B                  | 107703      | Ex9BL-N 1P+N B20 A 300mA | 1/6/72  |
| 25 A          | 300 mA                 | B                  | 107704      | Ex9BL-N 1P+N B25 A 300mA | 1/6/72  |
| 32 A          | 300 mA                 | B                  | 107705      | Ex9BL-N 1P+N B32 A 300mA | 1/6/72  |
| 40 A          | 300 mA                 | B                  | 107706      | Ex9BL-N 1P+N B40 A 300mA | 1/6/72  |

# RCBOs Ex9BL-N, 6 kA

## A type, characteristic C

- A type of residual current circuit breaker sensitive on residual pulsating AC current
- C characteristic of installed circuit breaker
- Without time delay
- Surge current-proof 3000 A
- Suitable for protection of people in case of direct and indirect contact with live parts and exposed conductive parts during a fault, respectively
- Selective with upstream installed S or S+A type RCCB



| Rated current | Rated residual current | MCB tripping char. | Article No. | Type                     | Packing |
|---------------|------------------------|--------------------|-------------|--------------------------|---------|
| 6 A           | 30 mA                  | C                  | 107643      | Ex9BL-N 1P+N C6 A 30mA   | 1/6/72  |
| 10 A          | 30 mA                  | C                  | 107644      | Ex9BL-N 1P+N C10 A 30mA  | 1/6/72  |
| 13 A          | 30 mA                  | C                  | 107645      | Ex9BL-N 1P+N C13 A 30mA  | 1/6/72  |
| 16 A          | 30 mA                  | C                  | 107646      | Ex9BL-N 1P+N C16 A 30mA  | 1/6/72  |
| 20 A          | 30 mA                  | C                  | 107647      | Ex9BL-N 1P+N C20 A 30mA  | 1/6/72  |
| 25 A          | 30 mA                  | C                  | 107648      | Ex9BL-N 1P+N C25 A 30mA  | 1/6/72  |
| 32 A          | 30 mA                  | C                  | 107649      | Ex9BL-N 1P+N C32 A 30mA  | 1/6/72  |
| 40 A          | 30 mA                  | C                  | 107650      | Ex9BL-N 1P+N C40 A 30mA  | 1/6/72  |
| 6 A           | 100 mA                 | C                  | 107675      | Ex9BL-N 1P+N C6 A 100mA  | 1/6/72  |
| 10 A          | 100 mA                 | C                  | 107676      | Ex9BL-N 1P+N C10 A 100mA | 1/6/72  |
| 13 A          | 100 mA                 | C                  | 107677      | Ex9BL-N 1P+N C13 A 100mA | 1/6/72  |
| 16 A          | 100 mA                 | C                  | 107678      | Ex9BL-N 1P+N C16 A 100mA | 1/6/72  |
| 20 A          | 100 mA                 | C                  | 107679      | Ex9BL-N 1P+N C20 A 100mA | 1/6/72  |
| 25 A          | 100 mA                 | C                  | 107680      | Ex9BL-N 1P+N C25 A 100mA | 1/6/72  |
| 32 A          | 100 mA                 | C                  | 107681      | Ex9BL-N 1P+N C32 A 100mA | 1/6/72  |
| 40 A          | 100 mA                 | C                  | 107682      | Ex9BL-N 1P+N C40 A 100mA | 1/6/72  |
| 6 A           | 300 mA                 | C                  | 107707      | Ex9BL-N 1P+N C6 A 300mA  | 1/6/72  |
| 10 A          | 300 mA                 | C                  | 107708      | Ex9BL-N 1P+N C10 A 300mA | 1/6/72  |
| 13 A          | 300 mA                 | C                  | 107709      | Ex9BL-N 1P+N C13 A 300mA | 1/6/72  |
| 16 A          | 300 mA                 | C                  | 107710      | Ex9BL-N 1P+N C16 A 300mA | 1/6/72  |
| 20 A          | 300 mA                 | C                  | 107711      | Ex9BL-N 1P+N C20 A 300mA | 1/6/72  |
| 25 A          | 300 mA                 | C                  | 107712      | Ex9BL-N 1P+N C25 A 300mA | 1/6/72  |
| 32 A          | 300 mA                 | C                  | 107713      | Ex9BL-N 1P+N C32 A 300mA | 1/6/72  |
| 40 A          | 300 mA                 | C                  | 107714      | Ex9BL-N 1P+N C40 A 300mA | 1/6/72  |

## Information sticker

- Sticker with information about regular monthly testing
- Languages EN, CZ, SK, FR, RU, PL, DE, RO
- In a scope of delivery of all magnetic RCCBs and RCBOs NOARK, spare part

| Description         | Languages                      | Article No. | Type | Packing |
|---------------------|--------------------------------|-------------|------|---------|
| Information sticker | EN, CZ, SK, FR, RU, PL, DE, RO | 101445      | YS31 | 1       |

# Technical Data Ex9BL-H

## Residual Current circuit Breakers with Overload protection Ex9BL-H, 10 kA

### General parameters

|  |
|--|
| Combination of MCB and RCCB in one case - saves 50 % space in comparison to combination of stand-alone MCB and RCCB                        |
| Tripping characteristics of installed circuit breaker B and C  |
| AC and A type of residual current device   |
| 1+N-pole version   |
| Suitable for household as well as industrial applications  |
| Permanent magnet principle of residual current device - Voltage independent tripping function  |
| Magnetic RCBOs should be tested regularly with a period of one month. This is a responsibility of the user of an installation given by law |
| Signaling of contacts status   |

### Electrical parameters

|   |  |
|---|--|
| Tested according to                       | EN 61009   |
| Rated operating voltage $U_e$             | 230 V AC   |
| Min. voltage for RCD function             | voltage independent  |
| Voltage range of the test button T        | 195.5 — 253 V AC   |
| Rated frequency f                         | 50/60 Hz   |
| Rated breaking capacity $I_{cn}$          | 10 kA  |
| Rated current $I_n$                       | 6 — 40 A   |
| Rated residual current $I_{\Delta n}$     | 30, 100, 300 mA  |
| Sensitivity to residual current           | AC type - AC residual current<br>A type - residual AC and pulsating DC current |
| Time characteristic of RCD                | undelayed type   |
| Tripping characteristics of MCB           | B, C   |
| Rated impulse withstand voltage $U_{imp}$ | 4 kV   |
| Rated insulation voltage $U_i$            | 500 V  |
| Surge current proof                       | 3000 A   |
| Mechanical service life                   | 20 000 operation cycles  |
| Electrical service life                   | 4 000 operation cycles   |
| Selectivity class                         | 3  |
| Back-up fuse/breaker                      | max. 125 A gG  |
| Line voltage connection                   | arbitrary above or below   |

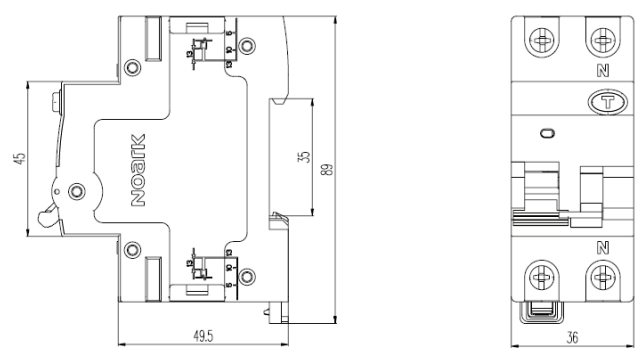
### Mechanical parameters

|                                 |   |
|---------------------------------|---|
| Device width                    | 36 mm                                       |
| Device height                   | 85 mm (including rail clip)                 |
| Frame size                      | 45 mm                                       |
| Mounting                        | easy fastening onto 35 mm device rail (DIN) |
| Degree of protection            | IP20  |
| Terminals                       | combined lift + open mouthed                |
| Terminal capacity               | 1 — 25 mm <sup>2</sup>                      |
| Fastening torque of terminals   | 1.5 — 2.5 Nm                                |
| Busbar thickness                | 0.8 — 2 mm                                  |
| Ambient temperature             | -25 — +40 °C                                |
| Altitude                        | ≤ 2000 m                                    |
| Relative humidity               | ≤ 95 %                                      |
| Resistance to humidity and heat | class 2                                     |
| Pollution degree                | 2   |
| Installation class              | III   |
| Weight                          | 0.2 kg                                      |

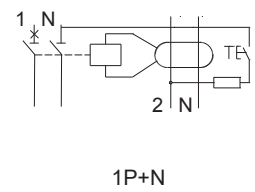
# Technical Data Ex9BL-H

## Residual Current circuit Breakers with Overload protection Ex9BL-H, 10 kA

### Dimensions

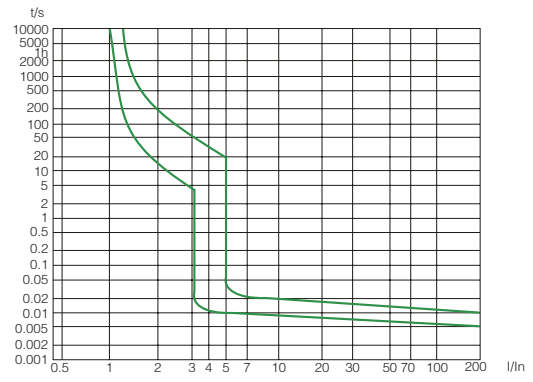


### Wiring diagram

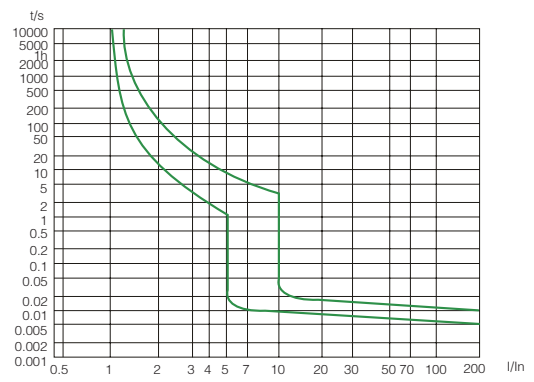


### Tripping characteristics of MCB

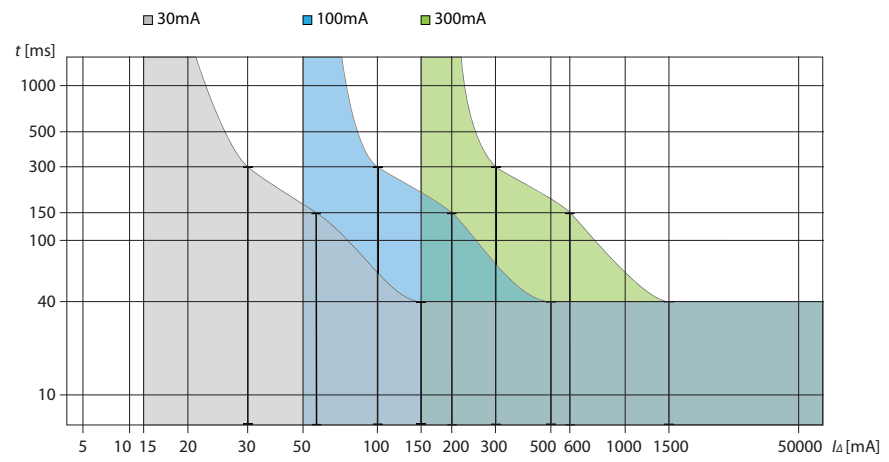
Characteristic B



Characteristic C



### Tripping characteristics of RCD



# Technical Data Ex9BL-H

## Residual Current circuit Breakers with Overload protection Ex9BL-H, 10 kA

### Dependence of Tripping Characteristics on Ambient Temperature

| T<br>[°C] | I <sub>n</sub> (T) [A] |      |      |      |      |      |      |      |
|-----------|------------------------|------|------|------|------|------|------|------|
|           | 6 A                    | 10 A | 13 A | 16 A | 20 A | 25 A | 32 A | 40 A |
| -20       | 8                      | 13.5 | 17   | 20   | 24.5 | 29.8 | 39.5 | 50.5 |
| -15       | 7.8                    | 13.3 | 16.8 | 19.8 | 24.3 | 29.7 | 39.3 | 50.4 |
| -10       | 7.6                    | 13   | 16.5 | 19.5 | 24   | 29.5 | 39   | 50.2 |
| -5        | 7.3                    | 12.7 | 16.1 | 19.2 | 23.8 | 29.3 | 38.8 | 50   |
| 0         | 7.2                    | 12.5 | 15.8 | 19.1 | 23.7 | 29.2 | 38.6 | 48.8 |
| 5         | 7                      | 12.3 | 15.5 | 18.8 | 23.5 | 29   | 38.4 | 48.6 |
| 10        | 6.8                    | 12.1 | 15.2 | 18.6 | 23.3 | 28.8 | 38.2 | 48.4 |
| 15        | 6.6                    | 12   | 14.9 | 18.5 | 23.1 | 28.6 | 38   | 48.1 |
| 20        | 6.4                    | 11.8 | 14.7 | 18.3 | 22.8 | 28.4 | 37.8 | 47.8 |
| 25        | 6.2                    | 11.5 | 14.1 | 18   | 22.6 | 28.2 | 37.5 | 47   |
| 30        | 6                      | 10   | 13   | 16   | 20   | 25   | 32   | 40   |
| 35        | 6                      | 9.9  | 12.8 | 15.7 | 19.7 | 24.6 | 31.5 | 39.2 |
| 40        | 5.9                    | 9.8  | 12.5 | 15.4 | 19.3 | 24.3 | 31.1 | 38.8 |
| 45        | 5.83                   | 9.8  | 12.2 | 15.1 | 18.8 | 24   | 30.8 | 38.3 |
| 50        | 5.72                   | 9.6  | 11.7 | 14.9 | 18.5 | 23.8 | 30.1 | 38   |
| 55        | 5.65                   | 9.5  | 11.5 | 14.7 | 18.2 | 23.5 | 29.5 | 36.5 |
| 60        | 5.5                    | 9    | 11.2 | 14.5 | 17.8 | 23   | 28.5 | 35   |
| 65        | 5.4                    | 8.6  | 11   | 14   | 17.5 | 22   | 27.5 | 34   |
| 70        | 5.2                    | 8    | 10.8 | 13.8 | 17.3 | 21.5 | 27   | 32.5 |

### Power loss

| I <sub>n</sub> [A] | 6 A | 10 A | 13 A | 16 A | 20 A | 25 A | 32 A | 40 A |
|--------------------|-----|------|------|------|------|------|------|------|
| P [W]              | 1,8 | 2,5  | 3,5  | 4    | 5    | 5,8  | 6,5  | 7,8  |



# Technical Data Ex9BL-N

## Residual Current current Breakers with Overload protection Ex9BL-N, 6 kA

### General parameters

|  |
|--|
| Combination of MCB and RCCB in one case - saves 50 % space in comparison to combination of stand-alone MCB and RCCB                        |
| Tripping characteristics of installed circuit breaker B and C  |
| AC and A type of residual current device   |
| 1+N-pole version   |
| Suitable for household as well as industrial applications  |
| Permanent magnet principle of residual current device - Voltage independent tripping function  |
| Magnetic RCBOs should be tested regularly with a period of one month. This is a responsibility of the user of an installation given by law |
| Signaling of contacts status   |

### Electrical parameters

|   |  |
|---|--|
| Tested according to                       | EN 61009   |
| Rated operating voltage $U_e$             | 230 V AC   |
| Min. voltage for RCD function             | voltage independent  |
| Voltage range of the test button T        | 195.5 — 253 V AC   |
| Rated frequency f                         | 50/60 Hz   |
| Rated breaking capacity $I_{cn}$          | 6 kA   |
| Rated current $I_n$                       | 6 — 40 A   |
| Rated residual current $I_{\Delta n}$     | 30, 100, 300 mA  |
| Sensitivity to residual current           | AC type - AC residual current<br>A type - residual AC and pulsating DC current |
| Time characteristic of RCD                | undelayed type   |
| Tripping characteristics of MCB           | B, C   |
| Rated impulse withstand voltage $U_{imp}$ | 4 kV   |
| Rated insulation voltage $U_i$            | 500 V  |
| Surge current proof                       | 3000 A   |
| Mechanical service life                   | 20 000 operation cycles  |
| Electrical service life                   | 4 000 operation cycles   |
| Selectivity class                         | 3  |
| Back-up fuse/breaker                      | max. 125 A gG  |
| Line voltage connection                   | arbitrary above or below   |

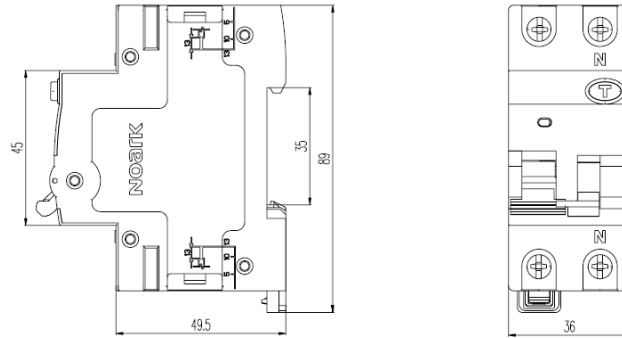
### Mechanical parameters

|                                 |   |
|---------------------------------|---|
| Device width                    | 36 mm                                       |
| Device height                   | 85 mm (including rail clip)                 |
| Frame size                      | 45 mm                                       |
| Mounting                        | easy fastening onto 35 mm device rail (DIN) |
| Degree of protection            | IP20  |
| Terminals                       | combined lift + open mouthed                |
| Terminal capacity               | 1 — 25 mm <sup>2</sup>                      |
| Fastening torque of terminals   | 1.5 — 2.5 Nm                                |
| Busbar thickness                | 0.8 — 2 mm                                  |
| Ambient temperature             | -25 — +40 °C                                |
| Altitude                        | ≤ 2000 m                                    |
| Relative humidity               | ≤ 95 %                                      |
| Resistance to humidity and heat | class 2                                     |
| Pollution degree                | 2   |
| Installation class              | III   |
| Weight                          | 0.2 kg                                      |

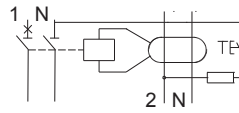
# Technical Data Ex9BL-N

## Residual Current current Breakers with Overload protection Ex9BL-N, 6 kA

### Dimensions



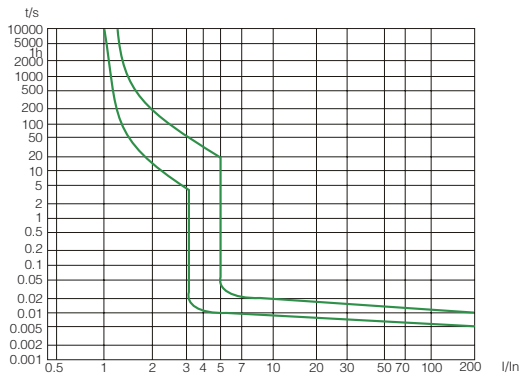
### Wiring diagram



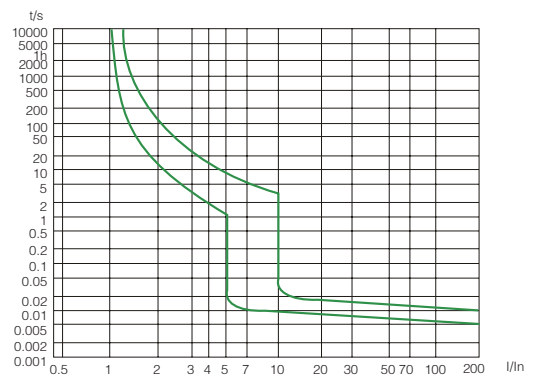
1P+N

### Tripping characteristics of MCB

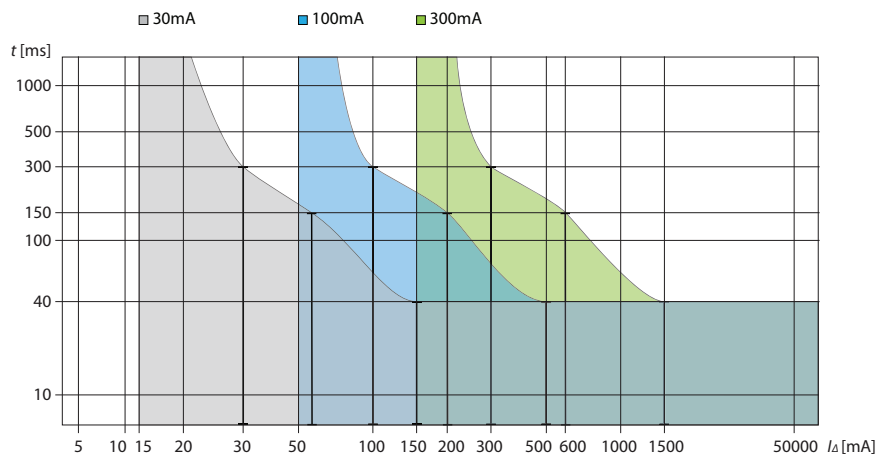
Characteristic B



Characteristic C



### Tripping characteristics of RCD



# Technical Data Ex9BL-N

## Residual Current current Breakers with Overload protection Ex9BL-N, 6 kA

### Dependence of Tripping Characteristics on Ambient Temperature

| T<br>[°C] | I <sub>n</sub> (T) [A] |      |      |      |      |      |      |      |
|-----------|------------------------|------|------|------|------|------|------|------|
|           | 6 A                    | 10 A | 13 A | 16 A | 20 A | 25 A | 32 A | 40 A |
| -20       | 8                      | 13.5 | 17   | 20   | 24.5 | 29.8 | 39.5 | 50.5 |
| -15       | 7.8                    | 13.3 | 16.8 | 19.8 | 24.3 | 29.7 | 39.3 | 50.4 |
| -10       | 7.6                    | 13   | 16.5 | 19.5 | 24   | 29.5 | 39   | 50.2 |
| -5        | 7.3                    | 12.7 | 16.1 | 19.2 | 23.8 | 29.3 | 38.8 | 50   |
| 0         | 7.2                    | 12.5 | 15.8 | 19.1 | 23.7 | 29.2 | 38.6 | 48.8 |
| 5         | 7                      | 12.3 | 15.5 | 18.8 | 23.5 | 29   | 38.4 | 48.6 |
| 10        | 6.8                    | 12.1 | 15.2 | 18.6 | 23.3 | 28.8 | 38.2 | 48.4 |
| 15        | 6.6                    | 12   | 14.9 | 18.5 | 23.1 | 28.6 | 38   | 48.1 |
| 20        | 6.4                    | 11.8 | 14.7 | 18.3 | 22.8 | 28.4 | 37.8 | 47.8 |
| 25        | 6.2                    | 11.5 | 14.1 | 18   | 22.6 | 28.2 | 37.5 | 47   |
| 30        | 6                      | 10   | 13   | 16   | 20   | 25   | 32   | 40   |
| 35        | 6                      | 9.9  | 12.8 | 15.7 | 19.7 | 24.6 | 31.5 | 39.2 |
| 40        | 5.9                    | 9.8  | 12.5 | 15.4 | 19.3 | 24.3 | 31.1 | 38.8 |
| 45        | 5.83                   | 9.8  | 12.2 | 15.1 | 18.8 | 24   | 30.8 | 38.3 |
| 50        | 5.72                   | 9.6  | 11.7 | 14.9 | 18.5 | 23.8 | 30.1 | 38   |
| 55        | 5.65                   | 9.5  | 11.5 | 14.7 | 18.2 | 23.5 | 29.5 | 36.5 |
| 60        | 5.5                    | 9    | 11.2 | 14.5 | 17.8 | 23   | 28.5 | 35   |
| 65        | 5.4                    | 8.6  | 11   | 14   | 17.5 | 22   | 27.5 | 34   |
| 70        | 5.2                    | 8    | 10.8 | 13.8 | 17.3 | 21.5 | 27   | 32.5 |

### Power loss

| I <sub>n</sub> [A] | 6 A | 10 A | 13 A | 16 A | 20 A | 25 A | 32 A | 40 A |
|--------------------|-----|------|------|------|------|------|------|------|
| P [W]              | 1.8 | 2.5  | 3.5  | 4    | 5    | 5.8  | 6.5  | 7.8  |