

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

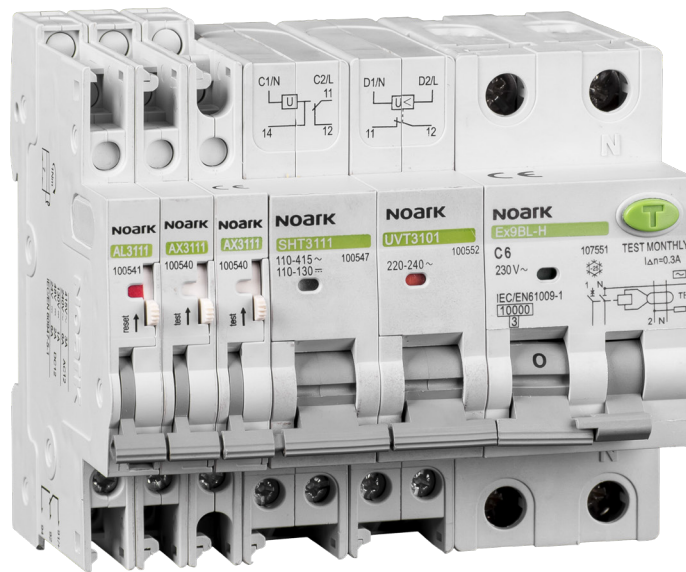
Ex9	BL	-H	1PN	B	16A	A	30mA
Product family	Product	Rated breaking capacity	Poles	Tripping characteristic of MCB	Rated current	Sensitivity to type of current	Rated residual current
Ex9	BL: RCBO	-H: 10 kA	1P+N	B C	6 — 40 A	—: AC A: A	30 mA 100 mA 300 mA

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 250 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 250 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 250 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 250 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 C	6 — 40 A	—: AC A: A	30 mA 100 mA 300 mA

Certification marks



RCBOs Ex9BL-N, 6 kA

Accessories



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 250 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 250 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 250 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 250 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 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	250 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

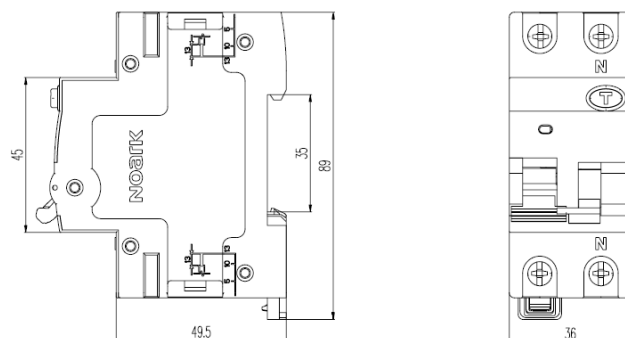
Mechanical parameters

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 ²
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

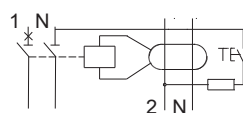
Technical Data Ex9BL-H

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

Dimensions



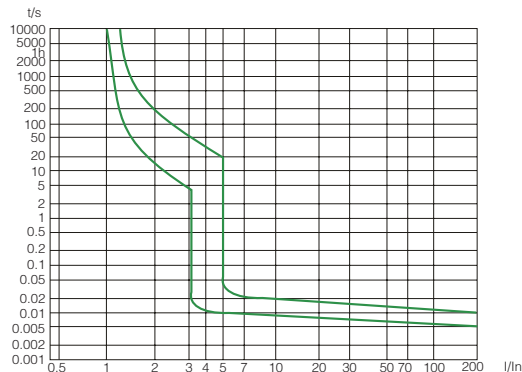
Wiring diagram



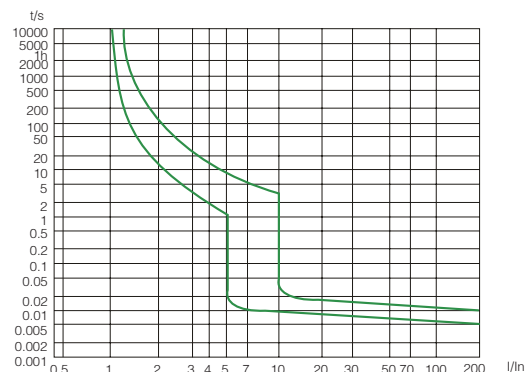
1P+N

Tripping characteristics of MCB

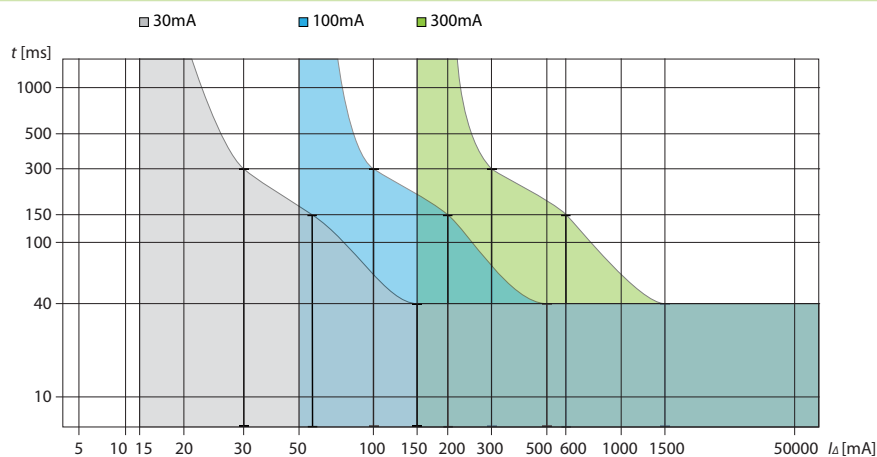
Characteristic B



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 [°C]	I _n (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

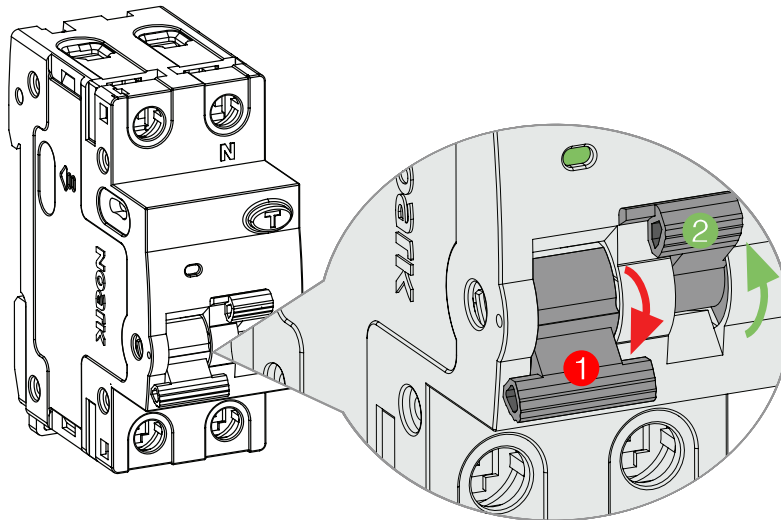
I _n [A]	6 A	10 A	13 A	16 A	20 A	25 A	32 A	40 A
P [W]	1,8	2,5	3,5	4	5	5,8	6,5	7,8

Technical Data Ex9BL-H

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

Breaker fault detection by toggle position

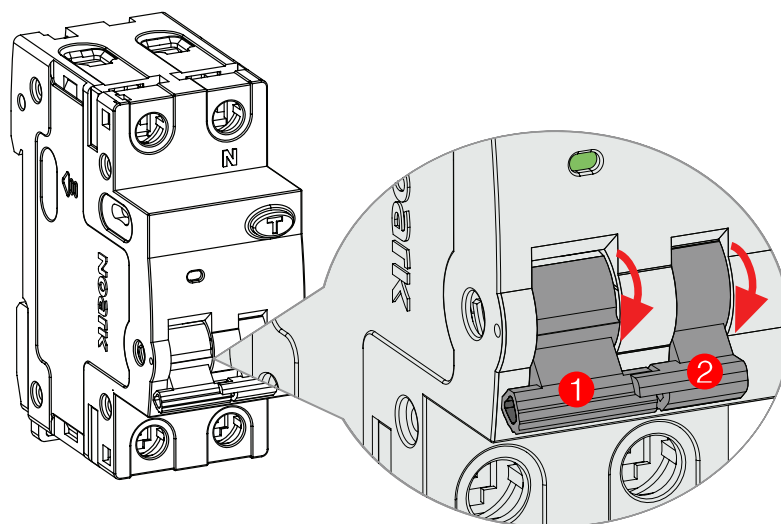
1. Overload or short-circuit detected



1 Toggle in the „OFF“ position

2 Toggle in the „ON“ position

2. Residual current detected



1 Toggle in the „OFF“ position

2 Toggle in the „OFF“ position

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 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	250 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

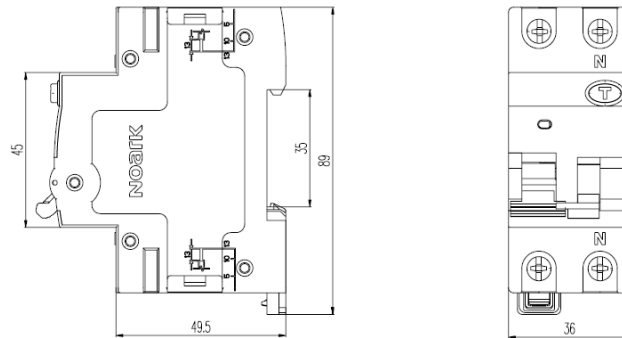
Mechanical parameters

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 ²
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

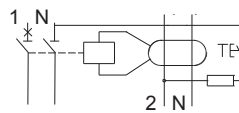
Technical Data Ex9BL-N

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

Dimensions



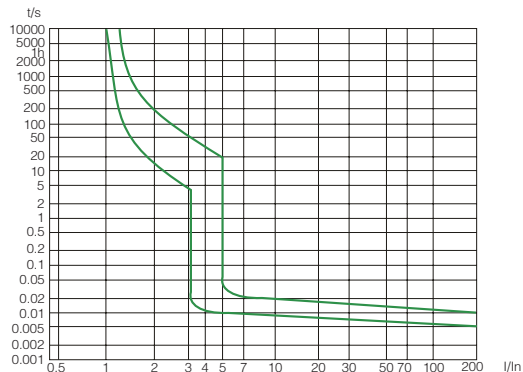
Wiring diagram



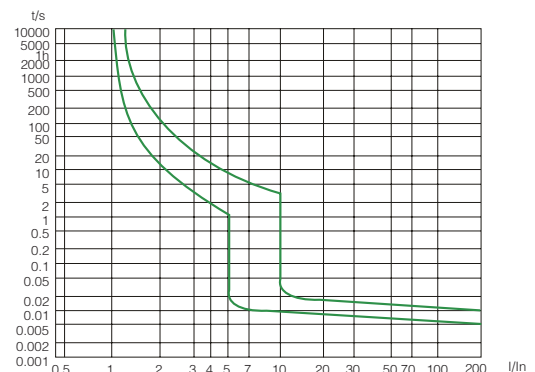
1P+N

Tripping characteristics of MCB

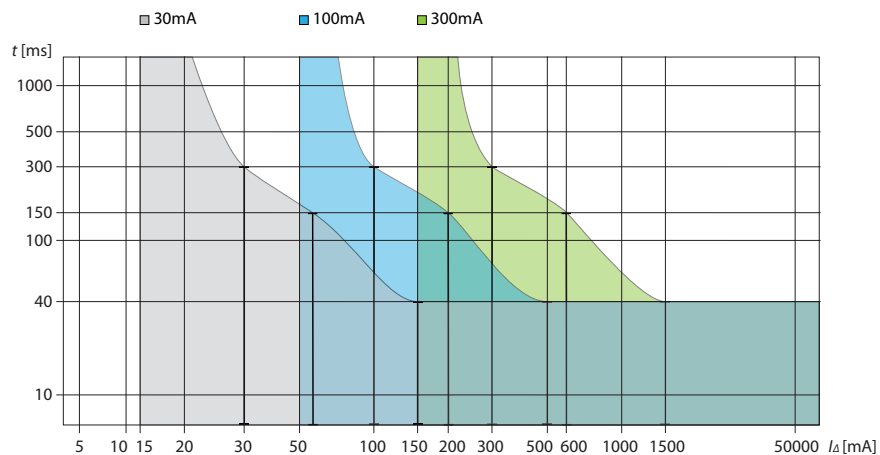
Characteristic B



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 [°C]	I _n (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

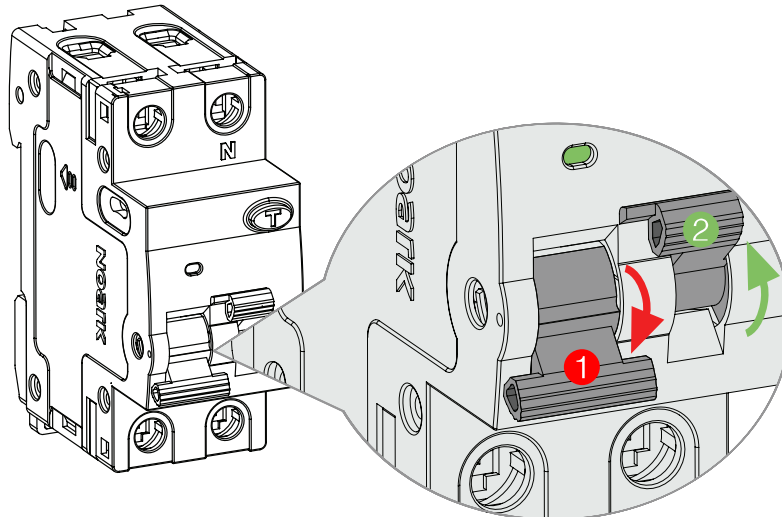
I _n [A]	6 A	10 A	13 A	16 A	20 A	25 A	32 A	40 A
P [W]	1.8	2.5	3.5	4	5	5.8	6.5	7.8

Technical Data Ex9BL-N

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

Breaker fault detection by toggle position

1. Overload or short-circuit detected

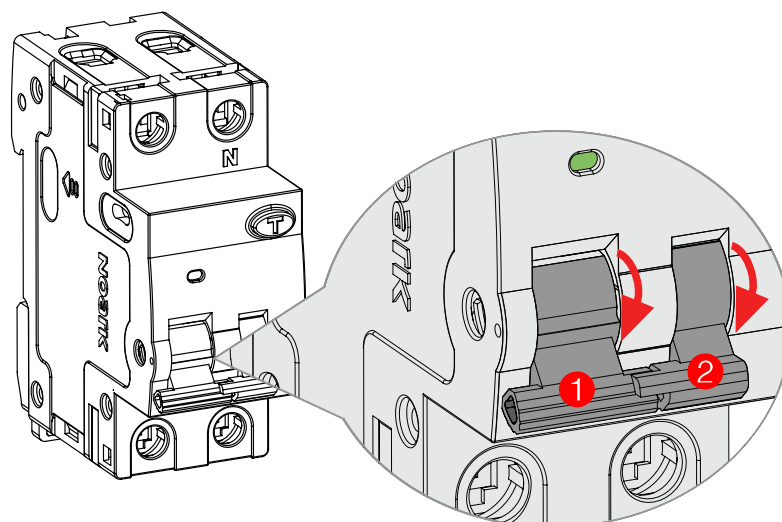


1 Toggle in the „OFF“ position

2 Toggle in the „ON“ position

$I > I_n$ (MCB)

2. Residual current detected



1 Toggle in the „OFF“ position

2 Toggle in the „OFF“ position

$I_{\Delta n}$ (RCD)