

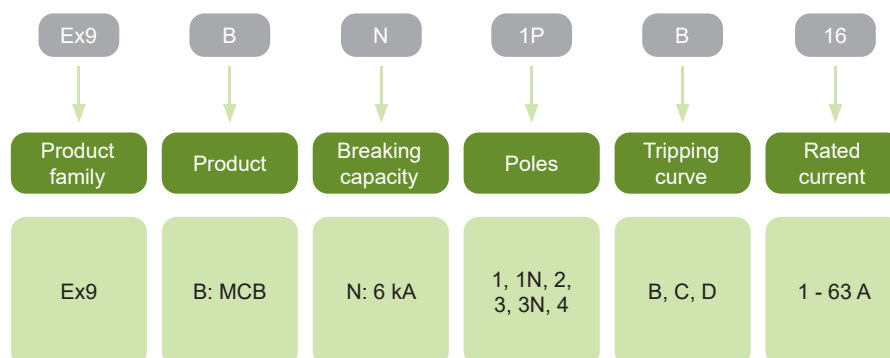
# Miniature Circuit Breakers Ex9BN, 6 kA



- Miniature Circuit Breakers according to IEC/EN 60898-1 and IEC/EN 60947-2 (partially)
- Rated short circuit breaking capacity 6 kA
- 1 up to 4-pole versions
- Tripping characteristics B, C, D
- Rated current up to 63 A
- Rated operational voltage 240/415 V AC
- 72 V DC per pole (1P, 2P)  
48 V DC per pole (3P, 4P)
- Wide range of accessories

Ex9BN miniature circuit breakers are suitable for domestic as well as industrial applications. They can be combined with wide range of accessories including auxiliary and signal contacts, shunt trip release, undervoltage and overvoltage release or RCD add-on block. It is possible to create diversified combination of accessories. These combinations are only limited by total number, not by the type of accessories - all components fit together. It can be used up to three units of auxiliary or alarm contacts plus up to two units for release units.

## Type Key



## Certification marks



# Miniature Circuit Breakers Ex9BN, 6 kA

## Accessories



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

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

MCB  
**Ex9B**  
1, 1+N, 2, 3, 3+N, 4-pole

RCD add-on block  
**Ex9LE**  
1+N, 2, 3, 3+N, 4-pole

Auxiliary contacts AX3111, AX3122

Alarm contact AL3111

Auxiliary and alarm contact AXL31

Shunt trip releases SHT31, SHT3111

Undervoltage releases UVT31, UVT3101, UVT3110

Overvoltage release OVT31

RCD add-on blocks Ex9LE

RCD add-on blocks are mounted to the MCBs Ex9B from the right, the other accessories from the left and are identical for devices of the line Ex9B, Ex9PN and Ex9IP.

# Miniature Circuit Breakers Ex9BN, 6 kA

## B-Characteristic, 1-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	1	B	100000	Ex9BN 1P B1	1/12/144
2 A	1	B	100001	Ex9BN 1P B2	1/12/144
3 A	1	B	100002	Ex9BN 1P B3	1/12/144
4 A	1	B	100003	Ex9BN 1P B4	1/12/144
6 A	1	B	100004	Ex9BN 1P B6	1/12/144
8 A	1	B	100005	Ex9BN 1P B8	1/12/144
10 A	1	B	100006	Ex9BN 1P B10	1/12/144
13 A	1	B	100007	Ex9BN 1P B13	1/12/144
16 A	1	B	100008	Ex9BN 1P B16	1/12/144
20 A	1	B	100009	Ex9BN 1P B20	1/12/144
25 A	1	B	100010	Ex9BN 1P B25	1/12/144
32 A	1	B	100011	Ex9BN 1P B32	1/12/144
40 A	1	B	100012	Ex9BN 1P B40	1/12/144
50 A	1	B	100013	Ex9BN 1P B50	1/12/144
63 A	1	B	100014	Ex9BN 1P B63	1/12/144

## B-Characteristic, 1+N-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	1+N	B	100015	Ex9BN 1PN B1	1/6/72
2 A	1+N	B	100016	Ex9BN 1PN B2	1/6/72
3 A	1+N	B	100017	Ex9BN 1PN B3	1/6/72
4 A	1+N	B	100018	Ex9BN 1PN B4	1/6/72
6 A	1+N	B	100019	Ex9BN 1PN B6	1/6/72
8 A	1+N	B	100020	Ex9BN 1PN B8	1/6/72
10 A	1+N	B	100021	Ex9BN 1PN B10	1/6/72
13 A	1+N	B	100022	Ex9BN 1PN B13	1/6/72
16 A	1+N	B	100023	Ex9BN 1PN B16	1/6/72
20 A	1+N	B	100024	Ex9BN 1PN B20	1/6/72
25 A	1+N	B	100025	Ex9BN 1PN B25	1/6/72
32 A	1+N	B	100026	Ex9BN 1PN B32	1/6/72
40 A	1+N	B	100027	Ex9BN 1PN B40	1/6/72
50 A	1+N	B	100028	Ex9BN 1PN B50	1/6/72
63 A	1+N	B	100029	Ex9BN 1PN B63	1/6/72

## B-Characteristic, 2-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	2	B	100030	Ex9BN 2P B1	1/6/72
2 A	2	B	100031	Ex9BN 2P B2	1/6/72
3 A	2	B	100032	Ex9BN 2P B3	1/6/72
4 A	2	B	100033	Ex9BN 2P B4	1/6/72
6 A	2	B	100034	Ex9BN 2P B6	1/6/72
8 A	2	B	100035	Ex9BN 2P B8	1/6/72
10 A	2	B	100036	Ex9BN 2P B10	1/6/72
13 A	2	B	100037	Ex9BN 2P B13	1/6/72
16 A	2	B	100038	Ex9BN 2P B16	1/6/72
20 A	2	B	100039	Ex9BN 2P B20	1/6/72
25 A	2	B	100040	Ex9BN 2P B25	1/6/72
32 A	2	B	100041	Ex9BN 2P B32	1/6/72
40 A	2	B	100042	Ex9BN 2P B40	1/6/72
50 A	2	B	100043	Ex9BN 2P B50	1/6/72
63 A	2	B	100044	Ex9BN 2P B63	1/6/72

# Miniature Circuit Breakers Ex9BN, 6 kA

## B-Characteristic, 3-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	3	B	100045	Ex9BN 3P B1	1/4/48
2 A	3	B	100046	Ex9BN 3P B2	1/4/48
3 A	3	B	100047	Ex9BN 3P B3	1/4/48
4 A	3	B	100048	Ex9BN 3P B4	1/4/48
6 A	3	B	100049	Ex9BN 3P B6	1/4/48
8 A	3	B	100050	Ex9BN 3P B8	1/4/48
10 A	3	B	100051	Ex9BN 3P B10	1/4/48
13 A	3	B	100052	Ex9BN 3P B13	1/4/48
16 A	3	B	100053	Ex9BN 3P B16	1/4/48
20 A	3	B	100054	Ex9BN 3P B20	1/4/48
25 A	3	B	100055	Ex9BN 3P B25	1/4/48
32 A	3	B	100056	Ex9BN 3P B32	1/4/48
40 A	3	B	100057	Ex9BN 3P B40	1/4/48
50 A	3	B	100058	Ex9BN 3P B50	1/4/48
63 A	3	B	100059	Ex9BN 3P B63	1/4/48

## B-Characteristic, 3+N-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	3+N	B	100060	Ex9BN 3PN B1	1/3/36
2 A	3+N	B	100061	Ex9BN 3PN B2	1/3/36
3 A	3+N	B	100062	Ex9BN 3PN B3	1/3/36
4 A	3+N	B	100063	Ex9BN 3PN B4	1/3/36
6 A	3+N	B	100064	Ex9BN 3PN B6	1/3/36
8 A	3+N	B	100065	Ex9BN 3PN B8	1/3/36
10 A	3+N	B	100066	Ex9BN 3PN B10	1/3/36
13 A	3+N	B	100067	Ex9BN 3PN B13	1/3/36
16 A	3+N	B	100068	Ex9BN 3PN B16	1/3/36
20 A	3+N	B	100069	Ex9BN 3PN B20	1/3/36
25 A	3+N	B	100070	Ex9BN 3PN B25	1/3/36
32 A	3+N	B	100071	Ex9BN 3PN B32	1/3/36
40 A	3+N	B	100072	Ex9BN 3PN B40	1/3/36
50 A	3+N	B	100073	Ex9BN 3PN B50	1/3/36
63 A	3+N	B	100074	Ex9BN 3PN B63	1/3/36

## B-Characteristic, 4-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	4	B	100075	Ex9BN 4P B1	1/3/36
2 A	4	B	100076	Ex9BN 4P B2	1/3/36
3 A	4	B	100077	Ex9BN 4P B3	1/3/36
4 A	4	B	100078	Ex9BN 4P B4	1/3/36
6 A	4	B	100079	Ex9BN 4P B6	1/3/36
8 A	4	B	100080	Ex9BN 4P B8	1/3/36
10 A	4	B	100081	Ex9BN 4P B10	1/3/36
13 A	4	B	100082	Ex9BN 4P B13	1/3/36
16 A	4	B	100083	Ex9BN 4P B16	1/3/36
20 A	4	B	100084	Ex9BN 4P B20	1/3/36
25 A	4	B	100085	Ex9BN 4P B25	1/3/36
32 A	4	B	100086	Ex9BN 4P B32	1/3/36
40 A	4	B	100087	Ex9BN 4P B40	1/3/36
50 A	4	B	100088	Ex9BN 4P B50	1/3/36
63 A	4	B	100089	Ex9BN 4P B63	1/3/36

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## C-Characteristic, 1-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	1	C	100090	Ex9BN 1P C1	1/12/144
2 A	1	C	100091	Ex9BN 1P C2	1/12/144
3 A	1	C	100092	Ex9BN 1P C3	1/12/144
4 A	1	C	100093	Ex9BN 1P C4	1/12/144
6 A	1	C	100094	Ex9BN 1P C6	1/12/144
8 A	1	C	100095	Ex9BN 1P C8	1/12/144
10 A	1	C	100096	Ex9BN 1P C10	1/12/144
13 A	1	C	100097	Ex9BN 1P C13	1/12/144
16 A	1	C	100098	Ex9BN 1P C16	1/12/144
20 A	1	C	100099	Ex9BN 1P C20	1/12/144
25 A	1	C	100100	Ex9BN 1P C25	1/12/144
32 A	1	C	100101	Ex9BN 1P C32	1/12/144
40 A	1	C	100102	Ex9BN 1P C40	1/12/144
50 A	1	C	100103	Ex9BN 1P C50	1/12/144
63 A	1	C	100104	Ex9BN 1P C63	1/12/144

## C-Characteristic, 1+N-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	1+N	C	100105	Ex9BN 1PN C1	1/6/72
2 A	1+N	C	100106	Ex9BN 1PN C2	1/6/72
3 A	1+N	C	100107	Ex9BN 1PN C3	1/6/72
4 A	1+N	C	100108	Ex9BN 1PN C4	1/6/72
6 A	1+N	C	100109	Ex9BN 1PN C6	1/6/72
8 A	1+N	C	100110	Ex9BN 1PN C8	1/6/72
10 A	1+N	C	100111	Ex9BN 1PN C10	1/6/72
13 A	1+N	C	100112	Ex9BN 1PN C13	1/6/72
16 A	1+N	C	100113	Ex9BN 1PN C16	1/6/72
20 A	1+N	C	100114	Ex9BN 1PN C20	1/6/72
25 A	1+N	C	100115	Ex9BN 1PN C25	1/6/72
32 A	1+N	C	100116	Ex9BN 1PN C32	1/6/72
40 A	1+N	C	100117	Ex9BN 1PN C40	1/6/72
50 A	1+N	C	100118	Ex9BN 1PN C50	1/6/72
63 A	1+N	C	100119	Ex9BN 1PN C63	1/6/72

## C-Characteristic, 2-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	2	C	100120	Ex9BN 2P C1	1/6/72
2 A	2	C	100121	Ex9BN 2P C2	1/6/72
3 A	2	C	100122	Ex9BN 2P C3	1/6/72
4 A	2	C	100123	Ex9BN 2P C4	1/6/72
6 A	2	C	100124	Ex9BN 2P C6	1/6/72
8 A	2	C	100125	Ex9BN 2P C8	1/6/72
10 A	2	C	100126	Ex9BN 2P C10	1/6/72
13 A	2	C	100127	Ex9BN 2P C13	1/6/72
16 A	2	C	100128	Ex9BN 2P C16	1/6/72
20 A	2	C	100129	Ex9BN 2P C20	1/6/72
25 A	2	C	100130	Ex9BN 2P C25	1/6/72
32 A	2	C	100131	Ex9BN 2P C32	1/6/72
40 A	2	C	100132	Ex9BN 2P C40	1/6/72
50 A	2	C	100133	Ex9BN 2P C50	1/6/72
63 A	2	C	100134	Ex9BN 2P C63	1/6/72



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## C-Characteristic, 3-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	3	C	100135	Ex9BN 3P C1	1/4/48
2 A	3	C	100136	Ex9BN 3P C2	1/4/48
3 A	3	C	100137	Ex9BN 3P C3	1/4/48
4 A	3	C	100138	Ex9BN 3P C4	1/4/48
6 A	3	C	100139	Ex9BN 3P C6	1/4/48
8 A	3	C	100140	Ex9BN 3P C8	1/4/48
10 A	3	C	100141	Ex9BN 3P C10	1/4/48
13 A	3	C	100142	Ex9BN 3P C13	1/4/48
16 A	3	C	100143	Ex9BN 3P C16	1/4/48
20 A	3	C	100144	Ex9BN 3P C20	1/4/48
25 A	3	C	100145	Ex9BN 3P C25	1/4/48
32 A	3	C	100146	Ex9BN 3P C32	1/4/48
40 A	3	C	100147	Ex9BN 3P C40	1/4/48
50 A	3	C	100148	Ex9BN 3P C50	1/4/48
63 A	3	C	100149	Ex9BN 3P C63	1/4/48

## C-Characteristic, 3+N-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	3+N	C	100150	Ex9BN 3PN C1	1/3/36
2 A	3+N	C	100151	Ex9BN 3PN C2	1/3/36
3 A	3+N	C	100152	Ex9BN 3PN C3	1/3/36
4 A	3+N	C	100153	Ex9BN 3PN C4	1/3/36
6 A	3+N	C	100154	Ex9BN 3PN C6	1/3/36
8 A	3+N	C	100155	Ex9BN 3PN C8	1/3/36
10 A	3+N	C	100156	Ex9BN 3PN C10	1/3/36
13 A	3+N	C	100157	Ex9BN 3PN C13	1/3/36
16 A	3+N	C	100158	Ex9BN 3PN C16	1/3/36
20 A	3+N	C	100159	Ex9BN 3PN C20	1/3/36
25 A	3+N	C	100160	Ex9BN 3PN C25	1/3/36
32 A	3+N	C	100161	Ex9BN 3PN C32	1/3/36
40 A	3+N	C	100162	Ex9BN 3PN C40	1/3/36
50 A	3+N	C	100163	Ex9BN 3PN C50	1/3/36
63 A	3+N	C	100164	Ex9BN 3PN C63	1/3/36

## C-Characteristic, 4-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	4	C	100165	Ex9BN 4P C1	1/3/36
2 A	4	C	100166	Ex9BN 4P C2	1/3/36
3 A	4	C	100167	Ex9BN 4P C3	1/3/36
4 A	4	C	100168	Ex9BN 4P C4	1/3/36
6 A	4	C	100169	Ex9BN 4P C6	1/3/36
8 A	4	C	100170	Ex9BN 4P C8	1/3/36
10 A	4	C	100171	Ex9BN 4P C10	1/3/36
13 A	4	C	100172	Ex9BN 4P C13	1/3/36
16 A	4	C	100173	Ex9BN 4P C16	1/3/36
20 A	4	C	100174	Ex9BN 4P C20	1/3/36
25 A	4	C	100175	Ex9BN 4P C25	1/3/36
32 A	4	C	100176	Ex9BN 4P C32	1/3/36
40 A	4	C	100177	Ex9BN 4P C40	1/3/36
50 A	4	C	100178	Ex9BN 4P C50	1/3/36
63 A	4	C	100179	Ex9BN 4P C63	1/3/36

# Miniature Circuit Breakers Ex9BN, 6 kA

## D-Characteristic, 1-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	1	D	100180	Ex9BN 1P D1	1/12/144
2 A	1	D	100181	Ex9BN 1P D2	1/12/144
3 A	1	D	100182	Ex9BN 1P D3	1/12/144
4 A	1	D	100183	Ex9BN 1P D4	1/12/144
6 A	1	D	100184	Ex9BN 1P D6	1/12/144
8 A	1	D	100185	Ex9BN 1P D8	1/12/144
10 A	1	D	100186	Ex9BN 1P D10	1/12/144
13 A	1	D	100187	Ex9BN 1P D13	1/12/144
16 A	1	D	100188	Ex9BN 1P D16	1/12/144
20 A	1	D	100189	Ex9BN 1P D20	1/12/144
25 A	1	D	100190	Ex9BN 1P D25	1/12/144
32 A	1	D	100191	Ex9BN 1P D32	1/12/144
40 A	1	D	100192	Ex9BN 1P D40	1/12/144
50 A	1	D	100193	Ex9BN 1P D50	1/12/144
63 A	1	D	100194	Ex9BN 1P D63	1/12/144

## D-Characteristic, 1+N-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	1+N	D	100195	Ex9BN 1PN D1	1/6/72
2 A	1+N	D	100196	Ex9BN 1PN D2	1/6/72
3 A	1+N	D	100197	Ex9BN 1PN D3	1/6/72
4 A	1+N	D	100198	Ex9BN 1PN D4	1/6/72
6 A	1+N	D	100199	Ex9BN 1PN D6	1/6/72
8 A	1+N	D	100200	Ex9BN 1PN D8	1/6/72
10 A	1+N	D	100201	Ex9BN 1PN D10	1/6/72
13 A	1+N	D	100202	Ex9BN 1PN D13	1/6/72
16 A	1+N	D	100203	Ex9BN 1PN D16	1/6/72
20 A	1+N	D	100204	Ex9BN 1PN D20	1/6/72
25 A	1+N	D	100205	Ex9BN 1PN D25	1/6/72
32 A	1+N	D	100206	Ex9BN 1PN D32	1/6/72
40 A	1+N	D	100207	Ex9BN 1PN D40	1/6/72
50 A	1+N	D	100208	Ex9BN 1PN D50	1/6/72
63 A	1+N	D	100209	Ex9BN 1PN D63	1/6/72

## D-Characteristic, 2-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	2	D	100210	Ex9BN 2P D1	1/6/72
2 A	2	D	100211	Ex9BN 2P D2	1/6/72
3 A	2	D	100212	Ex9BN 2P D3	1/6/72
4 A	2	D	100213	Ex9BN 2P D4	1/6/72
6 A	2	D	100214	Ex9BN 2P D6	1/6/72
8 A	2	D	100215	Ex9BN 2P D8	1/6/72
10 A	2	D	100216	Ex9BN 2P D10	1/6/72
13 A	2	D	100217	Ex9BN 2P D13	1/6/72
16 A	2	D	100218	Ex9BN 2P D16	1/6/72
20 A	2	D	100219	Ex9BN 2P D20	1/6/72
25 A	2	D	100220	Ex9BN 2P D25	1/6/72
32 A	2	D	100221	Ex9BN 2P D32	1/6/72
40 A	2	D	100222	Ex9BN 2P D40	1/6/72
50 A	2	D	100223	Ex9BN 2P D50	1/6/72
63 A	2	D	100224	Ex9BN 2P D63	1/6/72

# Miniature Circuit Breakers Ex9BN, 6 kA

## D-Characteristic, 3-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	3	D	100225	Ex9BN 3P D1	1/4/48
2 A	3	D	100226	Ex9BN 3P D2	1/4/48
3 A	3	D	100227	Ex9BN 3P D3	1/4/48
4 A	3	D	100228	Ex9BN 3P D4	1/4/48
6 A	3	D	100229	Ex9BN 3P D6	1/4/48
8 A	3	D	100230	Ex9BN 3P D8	1/4/48
10 A	3	D	100231	Ex9BN 3P D10	1/4/48
13 A	3	D	100232	Ex9BN 3P D13	1/4/48
16 A	3	D	100233	Ex9BN 3P D16	1/4/48
20 A	3	D	100234	Ex9BN 3P D20	1/4/48
25 A	3	D	100235	Ex9BN 3P D25	1/4/48
32 A	3	D	100236	Ex9BN 3P D32	1/4/48
40 A	3	D	100237	Ex9BN 3P D40	1/4/48
50 A	3	D	100238	Ex9BN 3P D50	1/4/48
63 A	3	D	100239	Ex9BN 3P D63	1/4/48

## D-Characteristic, 3+N-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	3+N	D	100240	Ex9BN 3PN D1	1/3/36
2 A	3+N	D	100241	Ex9BN 3PN D2	1/3/36
3 A	3+N	D	100242	Ex9BN 3PN D3	1/3/36
4 A	3+N	D	100243	Ex9BN 3PN D4	1/3/36
6 A	3+N	D	100244	Ex9BN 3PN D6	1/3/36
8 A	3+N	D	100245	Ex9BN 3PN D8	1/3/36
10 A	3+N	D	100246	Ex9BN 3PN D10	1/3/36
13 A	3+N	D	100247	Ex9BN 3PN D13	1/3/36
16 A	3+N	D	100248	Ex9BN 3PN D16	1/3/36
20 A	3+N	D	100249	Ex9BN 3PN D20	1/3/36
25 A	3+N	D	100250	Ex9BN 3PN D25	1/3/36
32 A	3+N	D	100251	Ex9BN 3PN D32	1/3/36
40 A	3+N	D	100252	Ex9BN 3PN D40	1/3/36
50 A	3+N	D	100253	Ex9BN 3PN D50	1/3/36
63 A	3+N	D	100254	Ex9BN 3PN D63	1/3/36

## D-Characteristic, 4-pole



Rated current	Poles	Char.	Article No.	Type	Packing
1 A	4	D	100255	Ex9BN 4P D1	1/3/36
2 A	4	D	100256	Ex9BN 4P D2	1/3/36
3 A	4	D	100257	Ex9BN 4P D3	1/3/36
4 A	4	D	100258	Ex9BN 4P D4	1/3/36
6 A	4	D	100259	Ex9BN 4P D6	1/3/36
8 A	4	D	100260	Ex9BN 4P D8	1/3/36
10 A	4	D	100261	Ex9BN 4P D10	1/3/36
13 A	4	D	100262	Ex9BN 4P D13	1/3/36
16 A	4	D	100263	Ex9BN 4P D16	1/3/36
20 A	4	D	100264	Ex9BN 4P D20	1/3/36
25 A	4	D	100265	Ex9BN 4P D25	1/3/36
32 A	4	D	100266	Ex9BN 4P D32	1/3/36
40 A	4	D	100267	Ex9BN 4P D40	1/3/36
50 A	4	D	100268	Ex9BN 4P D50	1/3/36
63 A	4	D	100269	Ex9BN 4P D63	1/3/36



# Technical Data Ex9BN

## Miniature Circuit Breakers, 6 kA

### General parameters

Very high limiting of short circuit current

Suitable for household as well as industrial applications

#### Accessories

Auxiliary contacts	AX3111, AX3122	100540, 100542
Alarm contact	AL3111	100541
Auxiliary and alarm contact	AXL31	100543
Shunt trip releases	SHT31, SHT3111	100544-100546, 100547-100549
Undervoltage releases	UVT31, UVT3101, UVT3110	100550-100551, 100552-100553, 100554-100555
Oversvoltage release	OVT31 280V AC±5%	100556

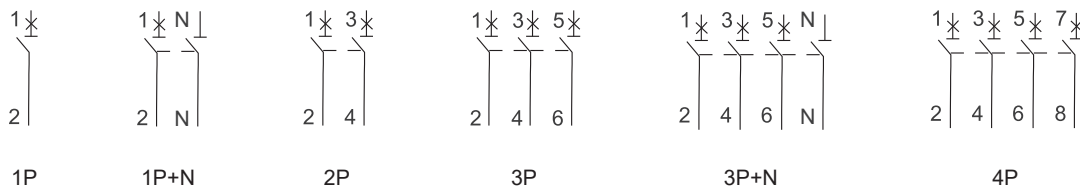
Max. number of installed accessories is 3 pcs of one contact units (AX3111, AL3111) or 2 pcs of two contact units (AX3122, AXL31) and 2 pcs of releases (SHT31, UVT31, OVT31)

RCD add-on blocks Ex9LE

### Electrical parameters

Tested according to	IEC/EN 60898-1, IEC/EN 60947-2 (partially)
Rated op. voltage $U_e$	240/415 V AC
	72 V DC per pole (1P, 2P), 48 V DC per pole (3P, 4P)
Minimum voltage	12 V AC/DC
Rated impulse withstand voltage $U_{imp}$ according IEC 60898-1	6 kV
Rated impulse withstand voltage $U_{imp}$ according IEC 60947-2	6 kV
Rated insulation voltage $U_i$	690 V AC
Rated frequency	50/60 Hz
Rated breaking capacity $I_{cn}$ according IEC 60898-1	6 kA
Rated breaking capacity $I_{cn}$ according IEC 60947-2	10kA
Rated current	1 — 63 A
Tripping characteristics	B, C, D
Mechanical service life	20 000 operation cycles
Electrical service life	10 000 operation cycles
Selectivity class	3
Utilization category	A
Max. back-up fuse	max. 125 A gG
Line voltage connection	arbitrary above or below

### Wiring diagrams



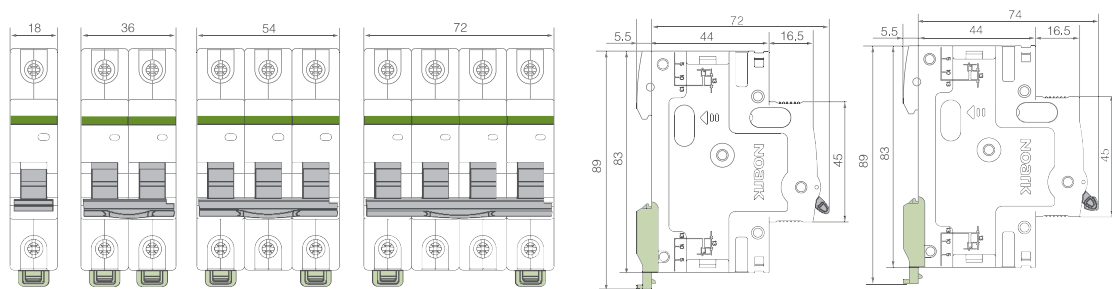
# Technical Data Ex9BN

## Miniature Circuit Breakers, 6 kA

### Mechanical parameters

Device width	18 mm (per pole)
Device height	83 mm (89 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 — 35 mm <sup>2</sup>
Fastening torque of terminals	2 — 3.5 Nm
Busbar thickness	0.8 — 2 mm
Ambient temperature	-30 — +70 °C
Altitude	≤ 2000 m
Relative humidity	≤ 95 %
Resistance to humidity and heat	class 2
Pollution degree	3
Installation class	III
Weight	0.12 kg (per pole)

### Dimensions

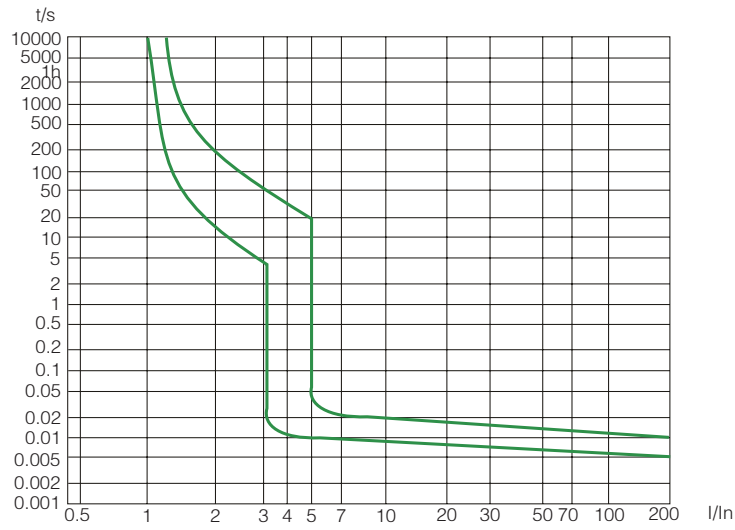


# Technical Data Ex9BN

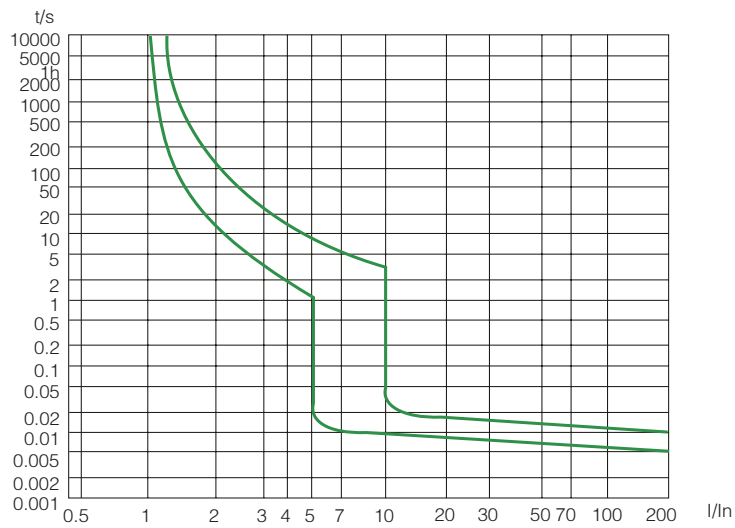
## Miniature Circuit Breakers, 6 kA

### Tripping characteristics

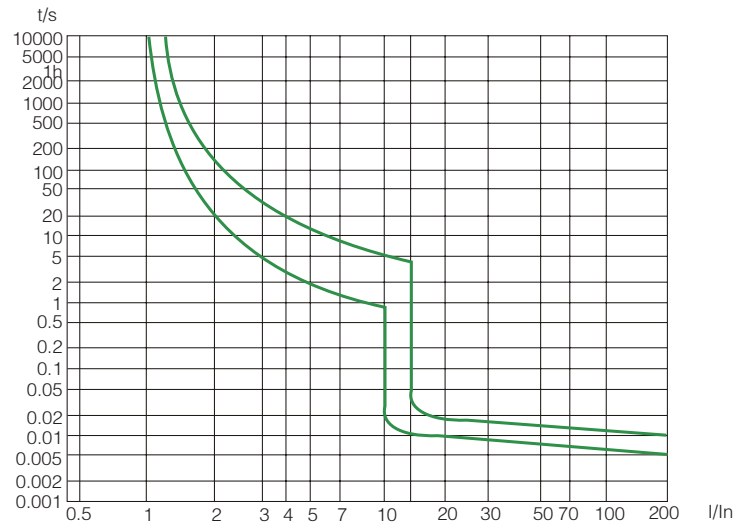
Characteristic B



Characteristic C



Characteristic D



# Technical Data Ex9BN

## Miniature Circuit Breakers, 6 kA

### Dependence of Tripping Characteristics on Ambient Temperature

T [°C]	I <sub>n</sub> (T) [A]														
	1 A	2 A	3 A	4 A	6 A	8 A	10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
-30	1.3	2.5	3.8	5.1	7.6	10.2	13.6	16.8	20.5	25.3	31.1	40.5	51.0	64.0	82.0
-25	1.2	2.4	3.7	4.9	7.4	9.9	13.4	16.5	20.0	25.0	30.5	39.8	50.0	63.0	80.7
-20	1.2	2.4	3.6	4.8	7.3	9.7	13.1	16.3	19.8	24.5	30.0	39.2	49.2	62.0	79.2
-15	1.2	2.4	3.5	4.8	7.2	9.5	12.8	15.9	19.4	24.0	29.5	38.5	48.4	60.8	77.8
-10	1.2	2.3	3.5	4.7	7.1	9.3	12.5	15.7	19.0	23.7	29.0	37.9	47.5	59.8	76.3
-5	1.2	2.3	3.4	4.7	7.0	9.2	12.3	15.4	18.7	23.2	28.5	37.2	46.7	58.6	74.7
0	1.1	2.2	3.4	4.5	6.8	9.0	12.0	15.0	18.4	22.8	28.0	36.5	45.8	57.4	73.2
5	1.1	2.2	3.3	4.4	6.6	8.9	11.7	14.7	18.0	22.4	27.5	35.8	45.0	56.3	71.6
10	1.1	2.1	3.3	4.3	6.5	8.7	11.4	14.3	17.6	21.9	27.0	35.0	44.0	55.0	70.0
15	1.1	2.1	3.2	4.3	6.4	8.5	11.0	14.0	17.2	21.5	26.5	34.3	43.0	53.8	68.3
20	1.0	2.1	3.2	4.2	6.3	8.3	10.7	13.7	16.8	21.0	26.0	33.6	42.0	52.6	66.6
25	1.0	2.0	3.0	4.1	6.2	8.2	10.4	13.4	16.4	20.5	25.5	32.8	41.0	51.3	64.8
30	1	2	3	4	6	8	10	13	16	20	25	32	40	50	63
35	0.99	2.00	3.00	3.9	5.9	7.9	9.9	12.8	16.0	20.0	25.0	32.0	39.0	49.0	62.0
40	0.97	1.90	2.90	3.9	5.8	7.8	9.7	12.5	15.0	19.0	24.0	31.0	39.0	48.0	61.0
45	0.95	1.90	2.80	3.8	5.7	7.7	9.5	12.2	15.0	19.0	24.0	30.0	38.0	47.0	60.0
50	0.93	1.90	2.80	3.7	5.6	7.6	9.3	12.0	15.0	19.0	23.0	30.0	37.0	46.0	58.0
55	0.91	1.80	2.80	3.6	5.5	7.5	9.0	11.7	14.0	18.0	23.0	29.0	36.0	44.0	57.0
60	0.91	1.80	2.70	3.5	5.4	7.2	8.8	11.5	14.0	18.0	22.0	28.0	35.0	42.0	55.0
65	0.91	1.80	2.70	3.5	5.3	7.1	8.6	11.2	13.0	17.0	21.0	28.0	34.0	40.0	52.0
70	0.91	1.80	2.70	3.5	5.3	6.9	8.6	11.0	13.0	17.0	21.0	27.0	33.0	38.0	50.0

### Power loss per pole

I <sub>n</sub> [A]	1 A	2 A	3 A	4 A	6 A	8 A	10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
P [W]	1.8	2.1	1.9	2.0	2.5	1.2	1.8	3.1	2.3	2.4	3.5	3.8	4.7	4.7	6.2