

Miniature Circuit Breaker xEffect Series

Advanced Design, Powerful Protection

2025 Catalog

xEffect Series Miniature Circuit Breakers



EATON

Powering Business Worldwide

xEffect Series Miniature Circuit Breakers

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Miniature Circuit Breaker xEffect Series



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xEffect Series Low Voltage Terminal Power Distribution Products

Product Description

As one of the most powerful electrical brands, Eaton, the most influential technical innovator, plays a leading role in the industry. Eaton keeps providing high performance quality products to help our customers increase productivity, reduce energy consumption and help us all build a more sustainable world, making Eaton a well-known reliable brand with strong sense of social responsibility;

Eaton's comprehensive and high-performance terminal power distribution products are widely used in industrial, commercial, residential, infrastructure construction, and MOEM applications to offer control, over load and short-circuit protection, residual current protection, over-voltage and surge protections. They are widely applicable for commercial, industrial and civil uses;

As a global high-end terminal product line, Eaton's low voltage terminal power distribution series provide safer and

easier operation, convenient installation, and precise protection with sleek design and superior performance.

- A complete spectrum of rated currents and features, providing precise protections for your personnel, electrical equipment and circuits against any fault;
- Clear indication of real contact positions via a "red-green" indicator, offering reliable indication of disconnection function to ensure the safety of operators;
- Twin-terminal structure design on both sides, allowing connection to all kinds of conductors and busbars at the same time, making the wiring more flexible, safer and more reliable;
- Different handle colors are used to indicate different current levels, and current marks other than prints are added to make the marks more durable while increasing color sensation of the product;

- Terminal wiring guiding structure is available, ensuring the accuracy of wiring positions, improving wiring efficiency while avoiding huge risk of electrical fire caused by wiring errors;
- 3-position DIN rail connector, easy to remove and replace from existing busbar system and rail, to ensure sustained power supply to other switches when replacing a switch due to any switch fault;
- A variety of accessories are available, easy to snap into adjacent units, convenient for installation and operation;
- Extremely high breaking current and superior current limiting characteristics, increasing the safety of electrical system with reduced system impulse due to any fault;
- Unique arc eliminating system design, ensuring rapid release during fault conditions, reducing residual heat after breaking and improving switch service life;
- A wide range of breaking capacities, allowing you to meet different requirements in your projects with great flexibility;
- In line with international and national standards, offering outstanding product backward compatibility. No significant design modification is needed during upgrading;
- Fully meet ROHS and REACH environmental standards with Green concept in mind, to better serve customers across the world, especially in Europe and the USA, contributing to environment protection while enjoying quality switches.

FAZ Miniature Circuit Breakers (Global Offer)



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FAZ Miniature Circuit Breakers (Global Offer)

Product Description

- Widely used in various kinds of high-end buildings and MOEM industries, to provide overload and short circuit protection, control, and power isolation, and have broad applications;
- Designed to the latest international and national standards such as IEC/EN60898-1, IEC/EN 60947-2, GB14048.2 and UL1077
- Clear indication of real contact positions via a "red-green" indicator, offering reliable indication of disconnection function to ensure the safety of operators;
- Twin-terminal structure design on both sides, allowing connection to all kinds of conductors and busbars at the same time, making the wiring more flexible, safer and more reliable;
- Terminal wiring guiding structure is available, ensuring the accuracy of wiring positions, improving wiring efficiency while avoiding huge risk of electrical fire caused by wiring errors;
- 3-position DIN rail connector, easy to remove and replace from existing busbar system and rail, to ensure sustained power supply to other switches when replacing a switch due to any switch fault;
- Extremely high breaking current and superior current limiting characteristics, increasing the safety of electrical system with reduced system impulse due to any fault;
- Unique arc eliminating system design, ensuring rapid release during fault conditions, reducing residual heat after breaking and improving switch service life;
- In line with international and national standards, offering outstanding product backward compatibility. No significant design modification is needed during upgrading;
- A variety of accessories are available, including auxiliary contact, alarm contacts, shunt release, under-voltage releases, etc.
- Wide working environment temperature range, suitable for a great variety of harsh climatic environments, such as wind power, electric vehicle charging piles and other outdoor equipment, etc.
- Number of poles: 1P, 2P, 3P, 4P;
- Instantaneous tripping characteristics: B, C, D, K, S, Z;
- Rated breaking current: up to 15kA (according to IEC/EN 60947-2);
- Widely certified by CCC, CB, CE, UL, and CSA

FAZ Miniature Circuit Breakers (MCBs)

Characteristic B

Rated current I_n (A)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc. to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
1-pole									
1	254	10	230	15	277	10	FAZ-B1/1	182114	12
1.5	254	10	230	15	277	10	FAZ-B1,5/1	182115	12
1.6	254	10	230	15	277	10	FAZ-B1,6/1	182116	12
2	254	10	230	15	277	10	FAZ-B2/1	182117	12
3	254	10	230	15	277	10	FAZ-B3/1	182119	12
3.5	254	10	230	15	277	10	FAZ-B3,5/1	182120	12
4	254	10	230	15	277	10	FAZ-B4/1	182121	12
5	254	10	230	15	277	10	FAZ-B5/1	182122	12
6	254	10	230	15	277	10	FAZ-B6/1	182123	12
8	254	10	230	15	277	10	FAZ-B8/1	182124	12
10	254	10	230	15	277	10	FAZ-B10/1	182125	12
12	254	10	230	15	277	10	FAZ-B12/1	182126	12
13	254	10	230	15	277	10	FAZ-B13/1	182127	12
15	254	10	230	15	277	10	FAZ-B15/1	182128	12
16	254	10	230	15	277	10	FAZ-B16/1	182129	12
20	254	10	230	15	277	10	FAZ-B20/1	182130	12
25	254	10	230	15	277	10	FAZ-B25/1	182131	12
32	254	10	230	15	277	10	FAZ-B32/1	182132	12
40	254	10	230	15	277	5	FAZ-B40/1	182133	12
50	230	15	230	15	277	5	FAZ-B50/1	182134	12
63	230	15	230	15	277	5	FAZ-B63/1	182135	12

SG53112



Characteristic B

SG55112



Rated current I_n (A)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
2-pole									
1	440	10	400	15	480Y/277	10	FAZ-B1/2	182158	6
1.5	440	10	400	15	480Y/277	10	FAZ-B1,5/2	182159	6
1.6	440	10	400	15	480Y/277	10	FAZ-B1,6/2	182160	6
2	440	10	400	15	480Y/277	10	FAZ-B2/2	182161	6
2.5	440	10	400	15	480Y/277	10	FAZ-B2,5/2	182162	6
3	440	10	400	15	480Y/277	10	FAZ-B3/2	182112	6
3.5	440	10	400	15	480Y/277	10	FAZ-B3,5/2	182113	6
4	440	10	400	15	480Y/277	10	FAZ-B4/2	182175	6
5	440	10	400	15	480Y/277	10	FAZ-B5/2	182176	6
6	440	10	400	15	480Y/277	10	FAZ-B6/2	182177	6
7	440	10	400	15	480Y/277	10	FAZ-B7/2	182178	6
8	440	10	400	15	480Y/277	10	FAZ-B8/2	182179	6
10	440	10	400	15	480Y/277	10	FAZ-B10/2	182180	6
12	440	10	400	15	480Y/277	10	FAZ-B12/2	182181	6
13	440	10	400	15	480Y/277	10	FAZ-B13/2	182182	6
15	440	10	400	15	480Y/277	10	FAZ-B15/2	182183	6
16	440	10	400	15	480Y/277	10	FAZ-B16/2	182184	6
20	440	10	400	15	480Y/277	10	FAZ-B20/2	182185	6
25	440	10	400	15	480Y/277	10	FAZ-B25/2	182186	6
32	440	10	400	15	480Y/277	10	FAZ-B32/2	182188	6
40	440	10	400	15	480Y/277	5	FAZ-B40/2	182189	6
50	400	15	400	15	480Y/277	5	FAZ-B50/2	182190	6
63	400	15	400	15	480Y/277	5	FAZ-B63/2	182191	6

SG53412



3-pole									
1	440	10	400	15	480Y/277	10	FAZ-B1/3	182192	4
1.5	440	10	400	15	480Y/277	10	FAZ-B1,5/3	182193	4
1.6	440	10	400	15	480Y/277	10	FAZ-B1,6/3	182194	4
2	440	10	400	15	480Y/277	10	FAZ-B2/3	182195	4
2.5	440	10	400	15	480Y/277	10	FAZ-B2,5/3	182196	4
3	440	10	400	15	480Y/277	10	FAZ-B3/3	182197	4
3.5	440	10	400	15	480Y/277	10	FAZ-B3,5/3	182198	4
4	440	10	400	15	480Y/277	10	FAZ-B4/3	182199	4
5	440	10	400	15	480Y/277	10	FAZ-B5/3	182200	4
6	440	10	400	15	480Y/277	10	FAZ-B6/3	182201	4
7	440	10	400	15	480Y/277	10	FAZ-B7/3	182202	4
8	440	10	400	15	480Y/277	10	FAZ-B8/3	182203	4
10	440	10	400	15	480Y/277	10	FAZ-B10/3	182204	4
12	440	10	400	15	480Y/277	10	FAZ-B12/3	182205	4
13	440	10	400	15	480Y/277	10	FAZ-B13/3	182206	4
15	440	10	400	15	480Y/277	10	FAZ-B15/3	182207	4
16	440	10	400	15	480Y/277	10	FAZ-B16/3	182208	4
20	440	10	400	15	480Y/277	10	FAZ-B20/3	182209	4
25	440	10	400	15	480Y/277	10	FAZ-B25/3	182210	4
32	440	10	400	15	480Y/277	10	FAZ-B32/3	182212	4
40	440	10	400	15	480Y/277	5	FAZ-B40/3	182213	4
50	400	15	400	15	480Y/277	5	FAZ-B50/3	182214	4
63	400	15	400	15	480Y/277	5	FAZ-B63/3	182215	4

Characteristic B

Rated current I_n (A)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
4-pole									
1	440	10	400	15	480Y/277	10	FAZ-B1/4	182238	3
1.5	440	10	400	15	480Y/277	10	FAZ-B1,5/4	182239	3
1.6	440	10	400	15	480Y/277	10	FAZ-B1,6/4	182240	3
2	440	10	400	15	480Y/277	10	FAZ-B2/4	182241	3
2.5	440	10	400	15	480Y/277	10	FAZ-B2,5/4	182242	3
3	440	10	400	15	480Y/277	10	FAZ-B3/4	182243	3
3.5	440	10	400	15	480Y/277	10	FAZ-B3,5/4	182244	3
4	440	10	400	15	480Y/277	10	FAZ-B4/4	182245	3
5	440	10	400	15	480Y/277	10	FAZ-B5/4	182246	3
6	440	10	400	15	480Y/277	10	FAZ-B6/4	182247	3
7	440	10	400	15	480Y/277	10	FAZ-B7/4	182248	3
8	440	10	400	15	480Y/277	10	FAZ-B8/4	182249	3
10	440	10	400	15	480Y/277	10	FAZ-B10/4	182250	3
12	440	10	400	15	480Y/277	10	FAZ-B12/4	182251	3
13	440	10	400	15	480Y/277	10	FAZ-B13/4	182252	3
15	440	10	400	15	480Y/277	10	FAZ-B15/4	182253	3
16	440	10	400	15	480Y/277	10	FAZ-B16/4	182254	3
20	440	10	400	15	480Y/277	10	FAZ-B20/4	182255	3
25	440	10	400	15	480Y/277	10	FAZ-B25/4	182256	3
32	440	10	400	15	480Y/277	10	FAZ-B32/4	182257	3
40	440	10	400	15	480Y/277	5	FAZ-B40/4	182258	3
50	400	15	400	15	480Y/277	5	FAZ-B50/4	182259	3
63	400	15	400	15	480Y/277	5	FAZ-B63/4	182260	3

SG55812



Characteristic C

SG53112



Rated current I_n (A)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
1-pole									
0.16	254	10	230	15	277	5	FAZ-C0,16/1	182261	12
0.25	254	10	230	15	277	5	FAZ-C0,25/1	182262	12
0.5	254	10	230	15	277	10	FAZ-C0,5/1	182263	12
0.75	254	10	230	15	277	10	FAZ-C0,75/1	182264	12
1	254	10	230	15	277	10	FAZ-C1/1	182265	12
1.5	254	10	230	15	277	10	FAZ-C1,5/1	182266	12
1.6	254	10	230	15	277	10	FAZ-C1,6/1	182267	12
2	254	10	230	15	277	10	FAZ-C2/1	182268	12
2.5	254	10	230	15	277	10	FAZ-C2,5/1	182269	12
3	254	10	230	15	277	10	FAZ-C3/1	182270	12
3.5	254	10	230	15	277	10	FAZ-C3,5/1	182271	12
4	254	10	230	15	277	10	FAZ-C4/1	182272	12
5	254	10	230	15	277	10	FAZ-C5/1	182273	12
6	254	10	230	15	277	10	FAZ-C6/1	182274	12
8	254	10	230	15	277	10	FAZ-C8/1	182275	12
10	254	10	230	15	277	10	FAZ-C10/1	182276	12
12	254	10	230	15	277	10	FAZ-C12/1	182277	12
13	254	10	230	15	277	10	FAZ-C13/1	182278	12
15	254	10	230	15	277	10	FAZ-C15/1	182279	12
16	254	10	230	15	277	10	FAZ-C16/1	182280	12
20	254	10	230	15	277	10	FAZ-C20/1	182281	12
25	254	10	230	15	277	10	FAZ-C25/1	182282	12
32	254	10	230	15	277	10	FAZ-C32/1	182283	12
40	254	10	230	15	277	5	FAZ-C40/1	182284	12
50	230	15	230	15	277	5	FAZ-C50/1	182285	12
63	230	15	230	15	277	5	FAZ-C63/1	182286	12

Characteristic C

SG55112



Rated current I_n (A)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
2-pole									
0.16	440	10	400	15	480V/277	5	FAZ-C0,16/2	182313	6
0.25	440	10	400	15	480V/277	5	FAZ-C0,25/2	182314	6
0.5	440	10	400	15	480V/277	10	FAZ-C0,5/2	182315	6
0.75	440	10	400	15	480V/277	10	FAZ-C0,75/2	182316	6
1	440	10	400	15	480V/277	10	FAZ-C1/2	182317	6
1.5	440	10	400	15	480V/277	10	FAZ-C1,5/2	182318	6
1.6	440	10	400	15	480V/277	10	FAZ-C1,6/2	182319	6
2	440	10	400	15	480V/277	10	FAZ-C2/2	182320	6
2.5	440	10	400	15	480V/277	10	FAZ-C2,5/2	182321	6
3	440	10	400	15	480V/277	10	FAZ-C3/2	182322	6
3.5	440	10	400	15	480V/277	10	FAZ-C3,5/2	182323	6
4	440	10	400	15	480V/277	10	FAZ-C4/2	182324	6
5	440	10	400	15	480V/277	10	FAZ-C5/2	182325	6
6	440	10	400	15	480V/277	10	FAZ-C6/2	182326	6
7	440	10	400	15	480V/277	10	FAZ-C7/2	182327	6
8	440	10	400	15	480V/277	10	FAZ-C8/2	182328	6
10	440	10	400	15	480V/277	10	FAZ-C10/2	182329	6
12	440	10	400	15	480V/277	10	FAZ-C12/2	182330	6
13	440	10	400	15	480V/277	10	FAZ-C13/2	182331	6
15	440	10	400	15	480V/277	10	FAZ-C15/2	182332	6
16	440	10	400	15	480V/277	10	FAZ-C16/2	182333	6
20	440	10	400	15	480V/277	10	FAZ-C20/2	182334	6
25	440	10	400	15	480V/277	10	FAZ-C25/2	182335	6
30	440	10	400	15	480V/277	10	FAZ-C30/2	182336	6
32	440	10	400	15	480V/277	10	FAZ-C32/2	182337	6
40	440	10	400	15	480V/277	5	FAZ-C40/2	182338	6
50	400	15	400	15	480V/277	5	FAZ-C50/2	182339	6
63	400	15	400	15	480V/277	5	FAZ-C63/2	182340	6

SG53412



3-pole									
0.16	440	10	400	15	480V/277	5	FAZ-C0,16/3	182341	4
0.25	440	10	400	15	480V/277	5	FAZ-C0,25/3	182342	4
0.5	440	10	400	15	480V/277	10	FAZ-C0,5/3	182163	4
0.75	440	10	400	15	480V/277	10	FAZ-C0,75/3	182164	4
1	440	10	400	15	480V/277	10	FAZ-C1/3	182165	4
1.5	440	10	400	15	480V/277	10	FAZ-C1,5/3	182166	4
1.6	440	10	400	15	480V/277	10	FAZ-C1,6/3	182167	4
2	440	10	400	15	480V/277	10	FAZ-C2/3	182168	4
2.5	440	10	400	15	480V/277	10	FAZ-C2,5/3	182169	4
3	440	10	400	15	480V/277	10	FAZ-C3/3	182170	4
3.5	440	10	400	15	480V/277	10	FAZ-C3,5/3	182171	4
4	440	10	400	15	480V/277	10	FAZ-C4/3	182172	4
5	440	10	400	15	480V/277	10	FAZ-C5/3	182173	4
6	440	10	400	15	480V/277	10	FAZ-C6/3	182174	4
7	440	10	400	15	480V/277	10	FAZ-C7/3	181651	4
8	440	10	400	15	480V/277	10	FAZ-C8/3	181652	4
10	440	10	400	15	480V/277	10	FAZ-C10/3	181653	4
12	440	10	400	15	480V/277	10	FAZ-C12/3	181654	4
13	440	10	400	15	480V/277	10	FAZ-C13/3	181655	4
15	440	10	400	15	480V/277	10	FAZ-C15/3	181656	4
16	440	10	400	15	480V/277	10	FAZ-C16/3	181657	4
20	440	10	400	15	480V/277	10	FAZ-C20/3	181658	4
25	440	10	400	15	480V/277	10	FAZ-C25/3	181659	4
30	440	10	400	15	480V/277	10	FAZ-C30/3	181660	4
32	440	10	400	15	480V/277	10	FAZ-C32/3	181661	4
40	440	10	400	15	480V/277	5	FAZ-C40/3	181662	4
50	400	15	400	15	480V/277	5	FAZ-C50/3	181663	4
63	400	15	400	15	480V/277	5	FAZ-C63/3	181664	4

Characteristic C

SG55812



Rated current I_n (A)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
4-pole									
0.16	440	10	400	15	480Y/277	5	FAZ-C0,16/4	181691	3
0.25	440	10	400	15	480Y/277	5	FAZ-C0,25/4	181692	3
0.5	440	10	400	15	480Y/277	10	FAZ-C0,5/4	181693	3
0.75	440	10	400	15	480Y/277	10	FAZ-C0,75/4	181694	3
1	440	10	400	15	480Y/277	10	FAZ-C1/4	181695	3
1.5	440	10	400	15	480Y/277	10	FAZ-C1,5/4	181696	3
1.6	440	10	400	15	480Y/277	10	FAZ-C1,6/4	181697	3
2	440	10	400	15	480Y/277	10	FAZ-C2/4	181698	3
2.5	440	10	400	15	480Y/277	10	FAZ-C2,5/4	181699	3
3	440	10	400	15	480Y/277	10	FAZ-C3/4	181700	3
3.5	440	10	400	15	480Y/277	10	FAZ-C3,5/4	181701	3
4	440	10	400	15	480Y/277	10	FAZ-C4/4	181702	3
5	440	10	400	15	480Y/277	10	FAZ-C5/4	181703	3
6	440	10	400	15	480Y/277	10	FAZ-C6/4	181704	3
7	440	10	400	15	480Y/277	10	FAZ-C7/4	181705	3
8	440	10	400	15	480Y/277	10	FAZ-C8/4	181706	3
10	440	10	400	15	480Y/277	10	FAZ-C10/4	181707	3
12	440	10	400	15	480Y/277	10	FAZ-C12/4	181708	3
13	440	10	400	15	480Y/277	10	FAZ-C13/4	181709	3
15	440	10	400	15	480Y/277	10	FAZ-C15/4	181710	3
16	440	10	400	15	480Y/277	10	FAZ-C16/4	181711	3
20	440	10	400	15	480Y/277	10	FAZ-C20/4	181712	3
25	440	10	400	15	480Y/277	10	FAZ-C25/4	181713	3
32	440	10	400	15	480Y/277	10	FAZ-C32/4	181714	3
40	440	10	400	15	480Y/277	5	FAZ-C40/4	181715	3
50	400	15	400	15	480Y/277	5	FAZ-C50/4	181716	3
63	400	15	400	15	480Y/277	5	FAZ-C63/4	181717	3

Characteristic D

Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
1-pole							
0.5	230	15	277	5	FAZ-D0,5/1	181718	12
1	230	15	277	5	FAZ-D1/1	181719	12
1.5	230	15	277	5	FAZ-D1,5/1	181720	12
1.6	230	15	277	5	FAZ-D1,6/1	181721	12
2	230	15	277	5	FAZ-D2/1	181722	12
2.5	230	15	277	5	FAZ-D2,5/1	181723	12
3	230	15	277	5	FAZ-D3/1	181724	12
3.5	230	15	277	5	FAZ-D3,5/1	181725	12
4	230	15	277	5	FAZ-D4/1	181726	12
5	230	15	277	5	FAZ-D5/1	181727	12
6	230	15	277	5	FAZ-D6/1	181728	12
8	230	15	277	5	FAZ-D8/1	181729	12
10	230	15	277	5	FAZ-D10/1	181730	12
12	230	15	277	5	FAZ-D12/1	181731	12
13	230	15	277	5	FAZ-D13/1	181732	12
15	230	15	277	5	FAZ-D15/1	181733	12
16	230	15	277	5	FAZ-D16/1	181734	12
20	230	15	277	5	FAZ-D20/1	181735	12
25	230	15	277	5	FAZ-D25/1	181736	12
32	230	15	277	5	FAZ-D32/1	181737	12
40	230	15	277	5	FAZ-D40/1	181738	12
50	230	10	277	5	FAZ-D50/1	181739	12
63	230	10	277	5	FAZ-D63/1	181740	12

SG53112



Characteristic D

SG55112



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
2-pole							
0.5	400	15	480V/277	5	FAZ-D0,5/2	181764	6
1	400	15	480V/277	5	FAZ-D1/2	181765	6
1.5	400	15	480V/277	5	FAZ-D1,5/2	181766	6
1.6	400	15	480V/277	5	FAZ-D1,6/2	181767	6
2	400	15	480V/277	5	FAZ-D2/2	181768	6
2.5	400	15	480V/277	5	FAZ-D2,5/2	181769	6
3	400	15	480V/277	5	FAZ-D3/2	181770	6
3.5	400	15	480V/277	5	FAZ-D3,5/2	181771	6
4	400	15	480V/277	5	FAZ-D4/2	181772	6
5	400	15	480V/277	5	FAZ-D5/2	181773	6
6	400	15	480V/277	5	FAZ-D6/2	181774	6
8	400	15	480V/277	5	FAZ-D8/2	181776	6
10	400	15	480V/277	5	FAZ-D10/2	181777	6
12	400	15	480V/277	5	FAZ-D12/2	181778	6
13	400	15	480V/277	5	FAZ-D13/2	181779	6
15	400	15	480V/277	5	FAZ-D15/2	181780	6
16	400	15	480V/277	5	FAZ-D16/2	181781	6
20	400	15	480V/277	5	FAZ-D20/2	181782	6
25	400	15	480V/277	5	FAZ-D25/2	181783	6
32	400	15	480V/277	5	FAZ-D32/2	181785	6
40	400	15	480V/277	5	FAZ-D40/2	181786	6
50	400	10	480V/277	5	FAZ-D50/2	181787	6
63	400	10	480V/277	5	FAZ-D63/2	181788	6

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3-pole							
0.5	400	15	480V/277	5	FAZ-D0,5/3	181789	4
1	400	15	480V/277	5	FAZ-D1/3	181790	4
1.5	400	15	480V/277	5	FAZ-D1,5/3	181791	4
1.6	400	15	480V/277	5	FAZ-D1,6/3	181792	4
2	400	15	480V/277	5	FAZ-D2/3	181793	4
2.5	400	15	480V/277	5	FAZ-D2,5/3	181794	4
3	400	15	480V/277	5	FAZ-D3/3	181795	4
3.5	400	15	480V/277	5	FAZ-D3,5/3	181796	4
4	400	15	480V/277	5	FAZ-D4/3	181797	4
5	400	15	480V/277	5	FAZ-D5/3	181798	4
6	400	15	480V/277	5	FAZ-D6/3	181799	4
8	400	15	480V/277	5	FAZ-D8/3	181801	4
10	400	15	480V/277	5	FAZ-D10/3	181802	4
12	400	15	480V/277	5	FAZ-D12/3	181803	4
13	400	15	480V/277	5	FAZ-D13/3	181804	4
15	400	15	480V/277	5	FAZ-D15/3	181805	4
16	400	15	480V/277	5	FAZ-D16/3	181806	4
20	400	15	480V/277	5	FAZ-D20/3	181807	4
25	400	15	480V/277	5	FAZ-D25/3	181808	4
30	400	15	480V/277	5	FAZ-D30/3	181809	4
32	400	15	480V/277	5	FAZ-D32/3	181810	4
40	400	15	480V/277	5	FAZ-D40/3	181811	4
50	400	10	480V/277	5	FAZ-D50/3	181812	4
63	400	10	480V/277	5	FAZ-D63/3	181813	4

Characteristic D

SG55812



Rated current I_n (A)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc. to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
4-pole							
0.5	400	15	480Y/277	5	FAZ-D0,5/4	181645	3
1	400	15	480Y/277	5	FAZ-D1/4	181646	3
1.5	400	15	480Y/277	5	FAZ-D1,5/4	181647	3
1.6	400	15	480Y/277	5	FAZ-D1,6/4	181648	3
2	400	15	480Y/277	5	FAZ-D2/4	181649	3
2.5	400	15	480Y/277	5	FAZ-D2,5/4	181650	3
3	400	15	480Y/277	5	FAZ-D3/4	181843	3
3.5	400	15	480Y/277	5	FAZ-D3,5/4	181844	3
4	400	15	480Y/277	5	FAZ-D4/4	181845	3
5	400	15	480Y/277	5	FAZ-D5/4	181846	3
6	400	15	480Y/277	5	FAZ-D6/4	181847	3
8	400	15	480Y/277	5	FAZ-D8/4	181849	3
10	400	15	480Y/277	5	FAZ-D10/4	181850	3
12	400	15	480Y/277	5	FAZ-D12/4	181851	3
13	400	15	480Y/277	5	FAZ-D13/4	181852	3
15	400	15	480Y/277	5	FAZ-D15/4	181853	3
16	400	15	480Y/277	5	FAZ-D16/4	181854	3
20	400	15	480Y/277	5	FAZ-D20/4	181855	3
25	400	15	480Y/277	5	FAZ-D25/4	181856	3
32	400	15	480Y/277	5	FAZ-D32/4	181857	3
40	400	10	480Y/277	5	FAZ-D40/4	181858	3
50	400	10	480Y/277	5	FAZ-D50/4	181859	3
63	400	10	480Y/277	5	FAZ-D63/4	181860	3

Characteristic K

5G53112



Rated current I_n (A)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc. to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
1-pole							
0.5	240	10	277	5	FAZ-K0,5/1	278589	12
1	240	10	277	5	FAZ-K1/1	278590	12
1.6	240	10	277	5	FAZ-K1,6/1	278591	12
2	240	10	277	5	FAZ-K2/1	278592	12
3	240	10	277	5	FAZ-K3/1	278593	12
4	240	10	277	5	FAZ-K4/1	278594	12
6	240	10	277	5	FAZ-K6/1	278595	12
8	240	10	277	5	FAZ-K8/1	278596	12
10	240	10	277	5	FAZ-K10/1	278597	12
13	240	10	277	5	FAZ-K13/1	278598	12
16	240	10	277	5	FAZ-K16/1	278599	12
20	240	10	277	5	FAZ-K20/1	278600	12
25	240	10	277	5	FAZ-K25/1	278601	12
32	240	10	277	5	FAZ-K32/1	278602	12
40	240	10	277	5	FAZ-K40/1	278603	12
50	240	10	277	5	FAZ-K50/1	278604	12
63	240	10	277	5	FAZ-K63/1	278605	12

Characteristic K

SG55112



SG53412



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
2-pole							
0.5	415	10	480Y/277	5	FAZ-K0,5/2	278788	6
1	415	10	480Y/277	5	FAZ-K1/2	278789	6
1.6	415	10	480Y/277	5	FAZ-K1,6/2	278790	6
2	415	10	480Y/277	5	FAZ-K2/2	278791	6
3	415	10	480Y/277	5	FAZ-K3/2	278792	6
4	415	10	480Y/277	5	FAZ-K4/2	278793	6
6	415	10	480Y/277	5	FAZ-K6/2	278794	6
8	415	10	480Y/277	5	FAZ-K8/2	278795	6
10	415	10	480Y/277	5	FAZ-K10/2	278796	6
13	415	10	480Y/277	5	FAZ-K13/2	278797	6
16	415	10	480Y/277	5	FAZ-K16/2	278798	6
20	415	10	480Y/277	5	FAZ-K20/2	278799	6
25	415	10	480Y/277	5	FAZ-K25/2	278800	6
32	415	10	480Y/277	5	FAZ-K32/2	278801	6
40	415	10	480Y/277	5	FAZ-K40/2	278802	6
50	415	10	480Y/277	5	FAZ-K50/2	278803	6
63	415	10	480Y/277	5	FAZ-K63/2	278804	6
3-pole							
0.5	415	10	480Y/277	5	FAZ-K0,5/3	278901	4
1	415	10	480Y/277	5	FAZ-K1/3	278902	4
1.6	415	10	480Y/277	5	FAZ-K1,6/3	278903	4
2	415	10	480Y/277	5	FAZ-K2/3	278904	4
3	415	10	480Y/277	5	FAZ-K3/3	278905	4
4	415	10	480Y/277	5	FAZ-K4/3	278906	4
6	415	10	480Y/277	5	FAZ-K6/3	278907	4
8	415	10	480Y/277	5	FAZ-K8/3	278908	4
10	415	10	480Y/277	5	FAZ-K10/3	278909	4
13	415	10	480Y/277	5	FAZ-K13/3	278910	4
16	415	10	480Y/277	5	FAZ-K16/3	278911	4
20	415	10	480Y/277	5	FAZ-K20/3	278912	4
25	415	10	480Y/277	5	FAZ-K25/3	278913	4
32	415	10	480Y/277	5	FAZ-K32/3	278914	4
40	415	10	480Y/277	5	FAZ-K40/3	278915	4
50	415	10	480Y/277	5	FAZ-K50/3	278916	4
63	415	10	480Y/277	5	FAZ-K63/3	278917	4

Characteristic K

5G55812



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
4-pole							
0.5	415	10	480V/277	5	FAZ-K0,5/4	279089	3
1	415	10	480V/277	5	FAZ-K1/4	279090	3
1.6	415	10	480V/277	5	FAZ-K1,6/4	279091	3
2	415	10	480V/277	5	FAZ-K2/4	279092	3
3	415	10	480V/277	5	FAZ-K3/4	279093	3
4	415	10	480V/277	5	FAZ-K4/4	279094	3
6	415	10	480V/277	5	FAZ-K6/4	279095	3
8	415	10	480V/277	5	FAZ-K8/4	279096	3
10	415	10	480V/277	5	FAZ-K10/4	279097	3
13	415	10	480V/277	5	FAZ-K13/4	279098	3
16	415	10	480V/277	5	FAZ-K16/4	279099	3
20	415	10	480V/277	5	FAZ-K20/4	279100	3
25	415	10	480V/277	5	FAZ-K25/4	279101	3
32	415	10	480V/277	5	FAZ-K32/4	279102	3
40	415	10	480V/277	5	FAZ-K40/4	279103	3
50	415	10	480V/277	5	FAZ-K50/4	279104	3
63	415	10	480V/277	5	FAZ-K63/4	279105	3

Characteristic S

Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
1-pole							
1	240	10	277	5	FAZ-S1/1	181861	12
2	240	10	277	5	FAZ-S2/1	181862	12
3	240	10	277	5	FAZ-S3/1	181863	12
4	240	10	277	5	FAZ-S4/1	181864	12
6	240	10	277	5	FAZ-S6/1	181865	12
10	240	10	277	5	FAZ-S10/1	181866	12
16	240	10	277	5	FAZ-S16/1	181867	12
20	240	10	277	5	FAZ-S20/1	181868	12
25	240	10	277	5	FAZ-S25/1	181869	12
32	240	10	277	5	FAZ-S32/1	181870	12
40	240	10	277	5	FAZ-S40/1	181871	12
2-pole							
1	415	10	480Y/277	5	FAZ-S1/2	181872	6
2	415	10	480Y/277	5	FAZ-S2/2	181873	6
3	415	10	480Y/277	5	FAZ-S3/2	181874	6
4	415	10	480Y/277	5	FAZ-S4/2	181875	6
6	415	10	480Y/277	5	FAZ-S6/2	181876	6
10	415	10	480Y/277	5	FAZ-S10/2	181877	6
16	415	10	480Y/277	5	FAZ-S16/2	181878	6
20	415	10	480Y/277	5	FAZ-S20/2	181879	6
25	415	10	480Y/277	5	FAZ-S25/2	181880	6
32	415	10	480Y/277	5	FAZ-S32/2	181881	6
40	415	10	480Y/277	5	FAZ-S40/2	181882	6

SG53112



SG55112



Characteristic Z

SG53112



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
1-pole							
0,5	240	10	277	5	FAZ-Z0.5/1	278617	12
1	240	10	277	5	FAZ-Z1/1	278618	12
1.6	240	10	277	5	FAZ-Z1.6/1	278619	12
2	240	10	277	5	FAZ-Z2/1	278620	12
3	240	10	277	5	FAZ-Z3/1	278621	12
4	240	10	277	5	FAZ-Z4/1	278622	12
6	240	10	277	5	FAZ-Z6/1	278623	12
8	240	10	277	5	FAZ-Z8/1	278624	12
10	240	10	277	5	FAZ-Z10/1	278625	12
13	240	10	277	5	FAZ-Z13/1	106020	12
16	240	10	277	5	FAZ-Z16/1	278626	12
20	240	10	277	5	FAZ-Z20/1	278627	12
25	240	10	277	5	FAZ-Z25/1	278628	12
32	240	10	277	5	FAZ-Z32/1	278629	12
40	240	10	277	5	FAZ-Z40/1	278630	12
50	240	10	277	5	FAZ-Z50/1	278631	12
63	240	10	277	5	FAZ-Z63/1	278632	12

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2-pole							
0.5	415	10	480Y/277	5	FAZ-Z0.5/2	278816	6
1	415	10	480Y/277	5	FAZ-Z1/2	278817	6
1.6	415	10	480Y/277	5	FAZ-Z1.6/2	278818	6
2	415	10	480Y/277	5	FAZ-Z2/2	278819	6
3	415	10	480Y/277	5	FAZ-Z3/2	278820	6
4	415	10	480Y/277	5	FAZ-Z4/2	278821	6
6	415	10	480Y/277	5	FAZ-Z6/2	278822	6
8	415	10	480Y/277	5	FAZ-Z8/2	278823	6
10	415	10	480Y/277	5	FAZ-Z10/2	278824	6
13	415	10	480Y/277	5	FAZ-Z13/2	106021	6
16	415	10	480Y/277	5	FAZ-Z16/2	278825	6
20	415	10	480Y/277	5	FAZ-Z20/2	278826	6
25	415	10	480Y/277	5	FAZ-Z25/2	278827	6
32	415	10	480Y/277	5	FAZ-Z32/2	278828	6
40	415	10	480Y/277	5	FAZ-Z40/2	278829	6
50	415	10	480Y/277	5	FAZ-Z50/2	278830	6
63	415	10	480Y/277	5	FAZ-Z63/2	278831	6

Characteristic Z

SG53412



SG55812



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL1077 (V)	Breaking capacity acc. to UL1077 (kA)	Type Designation	Article No.	Units per package
3-pole							
0.5	415	10	480Y/277	5	FAZ-Z0.5/3	278918	4
1	415	10	480Y/277	5	FAZ-Z1/3	278919	4
1.6	415	10	480Y/277	5	FAZ-Z1.6/3	278920	4
2	415	10	480Y/277	5	FAZ-Z2/3	278921	4
3	415	10	480Y/277	5	FAZ-Z3/3	278922	4
4	415	10	480Y/277	5	FAZ-Z4/3	278923	4
6	415	10	480Y/277	5	FAZ-Z6/3	278924	4
8	415	10	480Y/277	5	FAZ-Z8/3	278925	4
10	415	10	480Y/277	5	FAZ-Z10/3	278926	4
13	415	10	480Y/277	5	FAZ-Z13/3	106022	4
16	415	10	480Y/277	5	FAZ-Z16/3	278927	4
20	415	10	480Y/277	5	FAZ-Z20/3	278928	4
25	415	10	480Y/277	5	FAZ-Z25/3	278929	4
32	415	10	480Y/277	5	FAZ-Z32/3	278930	4
40	415	10	480Y/277	5	FAZ-Z40/3	278931	4
50	415	10	480Y/277	5	FAZ-Z50/3	278932	4
63	415	10	480Y/277	5	FAZ-Z63/3	278933	4
4-pole							
0.5	415	10	480Y/277	5	FAZ-Z0.5/4	279106	3
1	415	10	480Y/277	5	FAZ-Z1/4	279107	3
1.6	415	10	480Y/277	5	FAZ-Z1.6/4	279108	3
2	415	10	480Y/277	5	FAZ-Z2/4	279109	3
3	415	10	480Y/277	5	FAZ-Z3/4	279110	3
4	415	10	480Y/277	5	FAZ-Z4/4	279111	3
6	415	10	480Y/277	5	FAZ-Z6/4	279112	3
8	415	10	480Y/277	5	FAZ-Z8/4	279113	3
10	415	10	480Y/277	5	FAZ-Z10/4	279114	3
13	415	10	480Y/277	5	FAZ-Z13/4	106023	3
16	415	10	480Y/277	5	FAZ-Z16/4	279115	3
20	415	10	480Y/277	5	FAZ-Z20/4	279116	3
25	415	10	480Y/277	5	FAZ-Z25/4	279117	3
32	415	10	480Y/277	5	FAZ-Z32/4	279118	3
40	415	10	480Y/277	5	FAZ-Z40/4	279119	3
50	415	10	480Y/277	5	FAZ-Z50/4	279120	3
63	415	10	480Y/277	5	FAZ-Z63/4	279121	3

FAZ Miniature Circuit Breakers (MCBs)

Accessories:

1NO+1NC auxiliary contacts for subsequent installation	ZP-IHK	CBE03223
1NO auxiliary contacts for subsequent installation	ZP-WHK	286053
2NO trip indication contacts for subsequent installation	ZP-NHK	CBE03222
Shunt release	ZP-ASA	248438, 248439
Under-voltage release	Z-USA	258288, 248289, 248290
	Z-USD	248292, 248291
Switch interlocking device	Z-IS/SPE-1TE	274418
Wiring cover		
1-pole	Z7-AK-1TE	750754200
2-pole	Z-CV/SD-2P	221954800
3-pole	Z-CV/SD-3P	221954900
4-pole	Z-CV/SD-4P	221953900

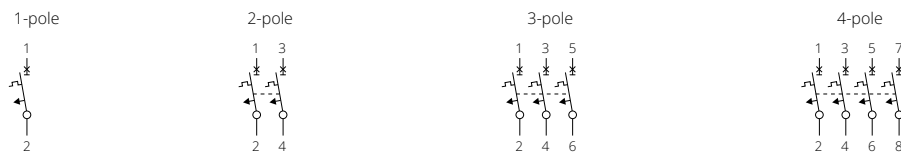
Technical Data

	B Curve		C Curve		D Curve
Electrical					
Approvals	UR (UL 1077), CSA (CSA 22.2 No. 235), CE, CB, CCC				
Standards	IEC/EN 60947-2, IEC/EN 60898-1				
Short-circuit trip response	3–5 I _n		5–10 I _n		10–20 I _n
Supplementary Protectors—UL/CSA					
Current range	1–63A		0.5–63A		0.5–40A
Maximum voltage ratings—UL/CSA					
Single-pole	277 V AC 60 V DC		277 V AC 60 V DC		277 V AC 60 V DC
2, 3, 4-pole	480Y/277 V AC		480Y/277 V AC		480Y/277 V AC
2 poles in series	125 V DC		125 V DC		125 V DC
Thermal tripping characteristics					
Single-pole	< 1 hour @ 1.35 x I _n @ 40°C		< 1 hour @ 1.35 x I _n @ 40°C		< 1 hour @ 1.35 x I _n @ 40°C
Multi-pole, 1 hour	< 1 hour @ 1.45 x I _n @ 40°C		< 1 hour @ 1.45 x I _n @ 40°C		< 1 hour @ 1.45 x I _n @ 40°C
Short-circuit ratings (at max. voltage)					
Single-pole	10 kA (5 kA for 40–63A device)		10 kA (5 kA for 40–63A device)		5 kA
2, 3-pole	10 kA (5 kA for 40–63A device)		10 kA (5 kA for 40–63A device)		5 kA
Single-pole	10 kA @ 60 Vdc		10 kA @ 60 Vdc		10 kA @ 60 Vdc
2 poles in series	10 kA @ 125 Vdc		10 kA @ 125 Vdc		10 kA @ 125 Vdc
Miniature Circuit Breaker—IEC					
Rated current	1–40 A	50–63 A	0.16–40 A	50–63 A	0.5–63A
Maximum voltage - IEC 60947-2					
Single-pole	254 V AC 60 V DC	230 V AC 60 V DC	254 V AC 60 V DC	230 V AC 60 V DC	230 Vac 60 Vdc
2, 3, 4-pole	440 V AC	400 V AC	440 V AC	400 V AC	230/400 Vac
2 poles in series	120V DC	120V DC	120V DC	120V DC	120V DC
Maximum Voltage Ratings—IEC 60898					
Single-pole	240 V AC	240 V AC	240 V AC	240 V AC	240 V AC
2, 3, 4-pole	415 V AC	415 V AC	415 V AC	415 V AC	415 V AC
Thermal tripping characteristics					
	> 1 hour @ 1.05 x I _n @ 40°C		> 1 hour @ 1.05 x I _n @ 40°C		> 1 hour @ 1.05 x I _n @ 40°C
	< 1 hour @ 1.3 x I _n @ 40°C		< 1 hour @ 1.3 x I _n @ 40°C		< 1 hour @ 1.3 x I _n @ 40°C
Interrupt ratings (at max. voltage)					
IEC 60947-2	10KA@254/440V, 15KA@230/400V	15 kA	10KA@254/440V, 15KA@230/400V	15 kA	15 kA (type D50 and D63: 10kA)
IEC 60898-1	10 kA	10 kA	10 kA	10 kA	10 kA (type D50 and D63: 6kA)
Operational switching capacity	7.5 kA	7.5 kA	7.5 kA	7.5 kA	7.5 kA (type D50 and D63: 6kA)
Max. back-up fuse [gL/gG]	125 A	125 A	125 A	125 A	125A
Rated impulse withstand	U _{imp} 4000 V AC	4000 V AC	4000 V AC	4000 V AC	4000 Vac
Rated insulation voltage	U _i 440 V AC	440 V AC	440 V AC	440 V AC	440 Vac
Environmental/General					
Selectivity class	3		3		3
Lifespan (operations)	> 10000 (1 operation = ON/OFF)		> 10000 (1 operation = ON/OFF)		> 10000 (1 operation = ON/OFF)
Shock (IEC 60068-2-22)	10g–120 ms		10g–120 ms		10g–120 ms
Operating temperature range	-40 to +75°C		-40 to +75°C		-40 to +75°C
Mechanical					
Standard front dimension					
Device height	80 mm		80 mm		80 mm
Terminal protection	Finger and back-of-hand proof		Finger and back-of-hand proof		Finger and back-of-hand proof
Mounting width per pole	17.5 mm		17.5 mm		17.5 mm
Mounting	IEC/EN 60715 top-hat rail		IEC/EN 60715 top-hat rail		IEC/EN 60715 top-hat rail
Degree of protection	IP20		IP20		IP20
Terminals top and bottom	Twin-purpose terminals		Twin-purpose terminals		Twin-purpose terminals
Supply connection	Line or load side		Line or load side		Line or load side
Terminal capacity [mm²]	1 x 25 / 2 x 10		1 x 25 / 2 x 10		1 x 25 / 2 x 10
Torque	2.4 Nm		2.4 Nm		2.4 Nm
Thickness of busbar material	0.8–2 mm		0.8–2 mm		0.8–2 mm
Mounting position	As required		As required		As required

Technical Data (continued)

	K Curve	S Curve	Z Curve
Electrical			
Approvals	UR (UL 1077), CE	UR (UL 1077), CSA (CSA 22.2 No. 235) for 1-16 A, CE, CCC, CB	UR (UL 1077), CE, CCC
Standards	IEC/EN 60947-2	IEC/EN 60947-2	IEC/EN 60947-2
Short-circuit trip response	8–12 I_n	13–17 I_n	2–3 I_n
Supplementary Protectors—UL/CSA			
Current range	0.5–63A	0.5–40A	1–63A
Maximum voltage ratings—UL/CSA			
Single-pole	277 Vac 48 Vdc	277 Vac 48 Vdc	277 Vac 48 Vdc
2, 3, 4-pole	480Y/277 Vac	480Y/277 Vac	480Y/277 Vac
2 poles in series	96 Vdc	96 Vdc	96 Vdc
Thermal tripping characteristics			
Single-pole	< 1 hour @ 1.35 x I_n @ 40°C	< 1 hour @ 1.35 x I_n @ 40°C	< 1 hour @ 1.35 x I_n @ 40°C
Multi-pole	< 1 hour @ 1.45 x I_n @ 40°C	< 1 hour @ 1.45 x I_n @ 40°C	< 1 hour @ 1.45 x I_n @ 40°C
Short-circuit ratings (at max. voltage)			
Single-pole	5 kA @ 277 Vac	5 kA @ 277 Vac	5 kA @ 277 Vac
2, 3, 4-pole	5 kA @ 480Y/277 Vac	5 kA @ 480Y/277 Vac	5 kA @ 480Y/277 Vac
Miniature Circuit Breaker—IEC			
Current range	0.5–63A	0.5–40A	1–63A
Maximum voltage ratings—IEC 60947-2			
Single-pole	240 Vac	240 Vac	240 Vac
1-pole	60 Vdc	60 Vdc	60 Vdc
2, 3, 4-pole	240/415 Vac	240/415 Vac	240/415 Vac
Thermal tripping characteristics			
	> 1 hour @ 1.05 x I_n @ 40°C	> 1 hour @ 1.05 x I_n @ 40°C	> 1 hour @ 1.05 x I_n @ 40°C
	< 1 hour @ 1.3 x I_n @ 40°C	< 1 hour @ 1.3 x I_n @ 40°C	< 1 hour @ 1.3 x I_n @ 40°C
Interrupt ratings (at max. voltage)			
IEC 60947-2	10 kA	10 kA	10 kA
Operational switching capacity	5 kA	5 kA	5 kA
Max. back-up fuse [g/L/gG]	125A	125A	125A
Rated impulse withstand	U_{imp} 4000 Vac	4000 Vac	4000 Vac
Rated insulation voltage	U_i 440 Vac	440 Vac	440 Vac
Environmental/General			
Selectivity class	3	3	3
Lifespan (operations)	> 10000 (1 operation = ON/OFF)	> 10000 (1 operation = ON/OFF)	> 10000 (1 operation = ON/OFF)
Shock (IEC 60068-2-22)	10g–120 ms	10g–120 ms	10g–120 ms
Operating temperature range	-40 to +75°C	-40 to +75°C	-40 to +75°C
Mechanical			
Standard front dimension			
Device height	80 mm	80 mm	80 mm
Terminal protection	Finger and back-of-hand proof	Finger and back-of-hand proof	Finger and back-of-hand proof
Mounting width per pole	17.5 mm	17.5 mm	17.5 mm
Mounting	IEC/EN 60715 top-hat rail	IEC/EN 60715 top-hat rail	IEC/EN 60715 top-hat rail
Degree of protection	IP20	IP20	IP20
Terminals top and bottom	Twin-purpose terminals	Twin-purpose terminals	Twin-purpose terminals
Supply connection	Line or load side	Line or load side	Line or load side
Terminal capacity [mm ²]	1 x 25 / 2 x 10	1 x 25 / 2 x 10	1 x 25 / 2 x 10
Torque	2.4 Nm	2.4 Nm	2.4 Nm
Thickness of busbar material	0.8–2 mm	0.8–2 mm	0.8–2 mm
Mounting position	As required	As required	As required

Connection diagram



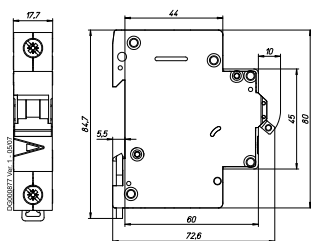
1.1

xEffect Series Miniature Circuit Breakers

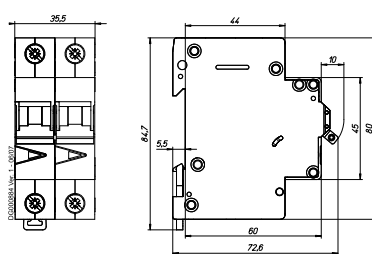
FAZ Miniature Circuit Breakers

FAZ Dimensions (mm)

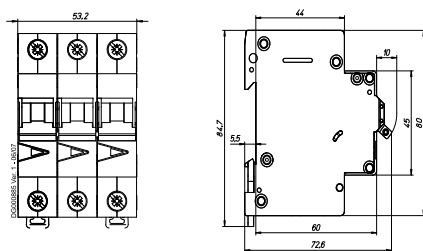
1-pole



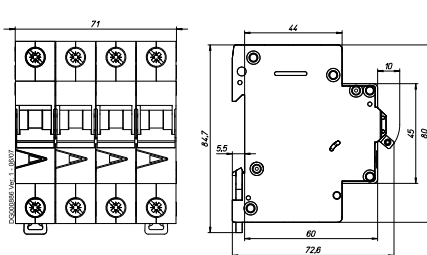
2-pole



3-pole

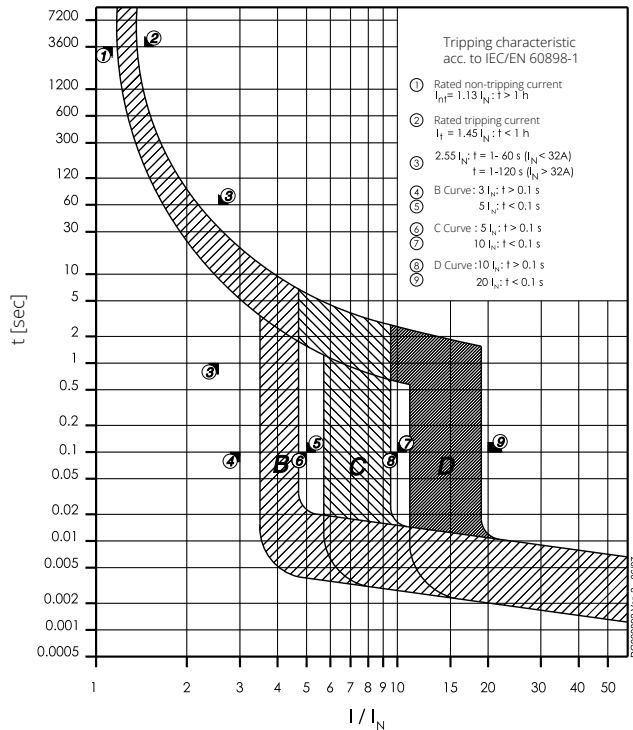


4-pole

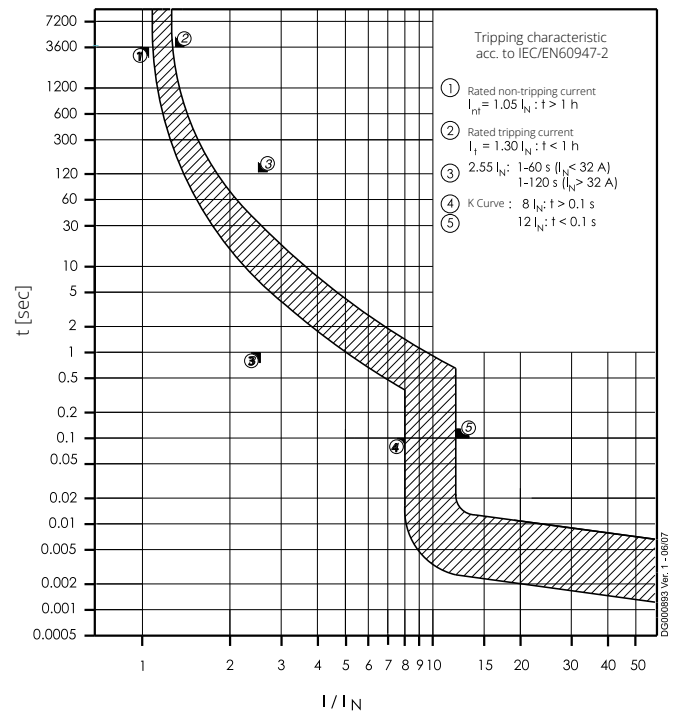


Tripping Characteristic FAZ

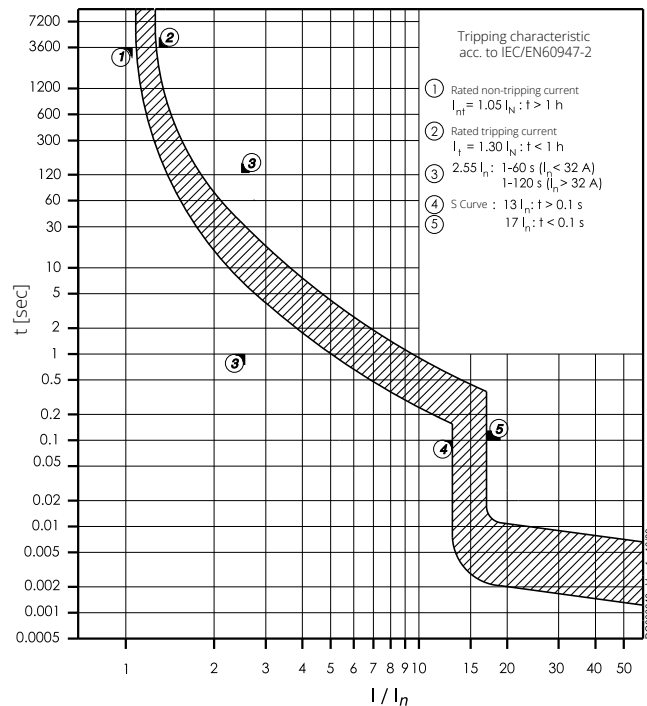
Characteristics B, C and D - IEC/EN60898-1



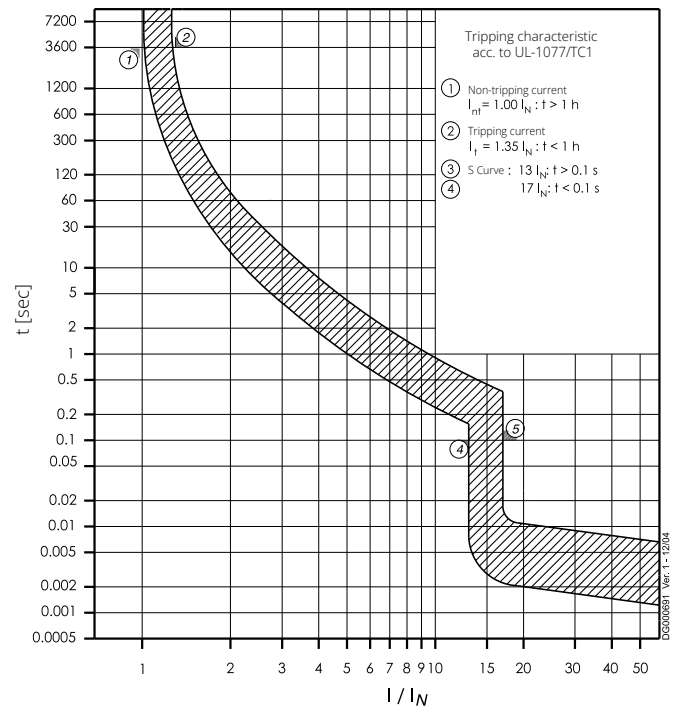
Characteristic K - IEC/EN 60947-2



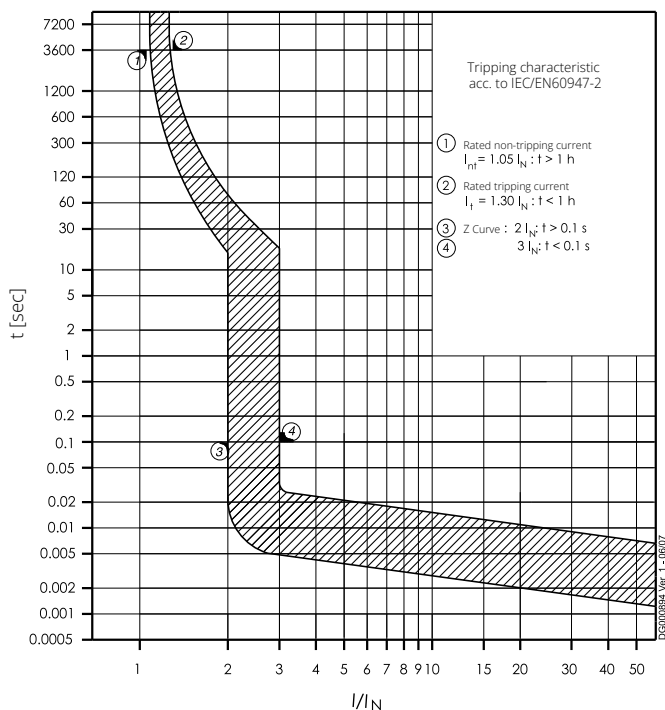
Characteristic S - IEC/EN 60947-2



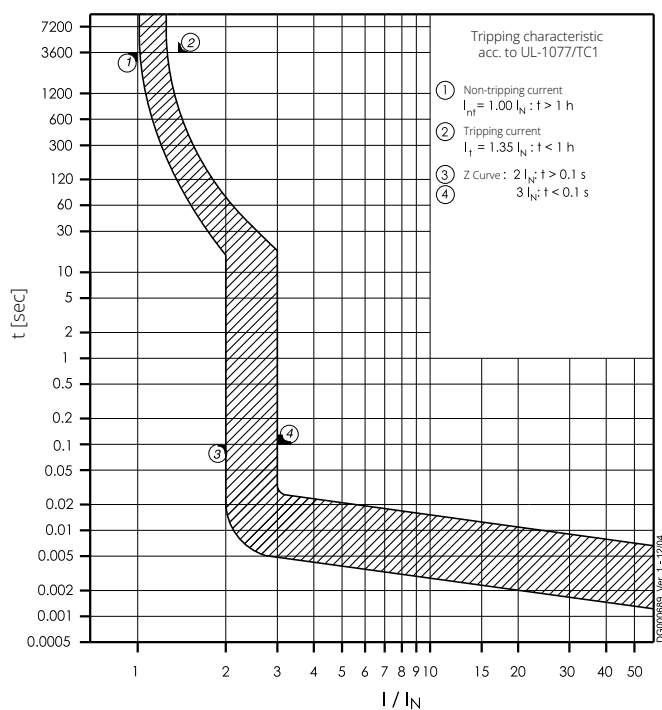
Characteristic S - UL1077



Characteristic Z - IEC/EN 60947-2



Characteristic Z - UL1077



FAZ-T Miniature Circuit Breakers



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FAZ-T Miniature Circuit Breakers

Product Description

- High-performance miniature circuit breakers, widely used in industries and buildings
- Red-green contact position indicator
- Complete accessories are available for subsequent installation
- Rated current up to 40A
- Tripping characteristic: B, C, D
- Rated breaking capacity up to 25KA,
- Complies with IEC/EN 60947-2
- Certification: CCC, CE, UL

FAZ-T Miniature Circuit Breakers

Characteristic B

Rated current I_n (A)	Rated voltage acc. to IEC/EN 60898-1 (V)	Breaking capacity acc. to IEC/EN 60898-1 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Type Designation	Article No.	Units per package
1-pole									
1	240	15	240	25	254	15	FAZT-B1/1	240770	12
2	240	15	240	25	254	15	FAZT-B2/1	240771	12
3	240	15	240	25	254	15	FAZT-B3/1	240772	12
4	240	15	240	25	254	15	FAZT-B4/1	240777	12
6	240	15	240	25	254	15	FAZT-B6/1	240782	12
10	240	15	240	25	254	15	FAZT-B10/1	240787	12
12	240	15	240	25	254	15	FAZT-B12/1	240792	12
13	240	15	240	25	254	15	FAZT-B13/1	240793	12
15	240	15	240	25	254	15	FAZT-B15/1	240794	12
16	240	15	240	25	254	15	FAZT-B16/1	240795	12
20	240	15	240	25	254	15	FAZT-B20/1	240796	12
25	240	15	240	25	254	15	FAZT-B25/1	240797	12
32	240	10	240	20	254	15	FAZT-B32/1	141907	12
40	240	10	240	20	254	15	FAZT-B40/1	141908	12
2-pole									
1	415	15	240/415	25	254/440	15	FAZT-B1/2	240820	6
2	415	15	240/415	25	254/440	15	FAZT-B2/2	240821	6
3	415	15	240/415	25	254/440	15	FAZT-B3/2	240822	6
4	415	15	240/415	25	254/440	15	FAZT-B4/2	240823	6
6	415	15	240/415	25	254/440	15	FAZT-B6/2	240824	6
10	415	15	240/415	25	254/440	15	FAZT-B10/2	240825	6
12	415	15	240/415	25	254/440	15	FAZT-B12/2	240826	6
13	415	15	240/415	25	254/440	15	FAZT-B13/2	240827	6
15	415	15	240/415	25	254/440	15	FAZT-B15/2	240828	6
16	415	15	240/415	25	254/440	15	FAZT-B16/2	240829	6
20	415	15	240/415	25	254/440	15	FAZT-B20/2	240830	6
25	415	15	240/415	25	254/440	15	FAZT-B25/2	240831	6
32	415	10	240/415	20	254/440	15	FAZT-B32/2	142485	6
40	415	10	240/415	20	254/440	15	FAZT-B40/2	142486	6

SG53212



SG53212



Characteristic B

SG53512



SG56012



Rated current I_n (A)	Rated voltage acc. to IEC/EN 60898-1 (V)	Breaking capacity acc. to IEC/EN 60898-1 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Type Designation	Article No.	Units per package
3-pole									
1	415	15	240/415	25	254/440	15	FAZT-B1/3	240874	4
2	415	15	240/415	25	254/440	15	FAZT-B2/3	240875	4
3	415	15	240/415	25	254/440	15	FAZT-B3/3	240876	4
4	415	15	240/415	25	254/440	15	FAZT-B4/3	240877	4
6	415	15	240/415	25	254/440	15	FAZT-B6/3	240878	4
10	415	15	240/415	25	254/440	15	FAZT-B10/3	240879	4
12	415	15	240/415	25	254/440	15	FAZT-B12/3	240880	4
13	415	15	240/415	25	254/440	15	FAZT-B13/3	240881	4
15	415	15	240/415	25	254/440	15	FAZT-B15/3	240882	4
16	415	15	240/415	25	254/440	15	FAZT-B16/3	240883	4
20	415	15	240/415	25	254/440	15	FAZT-B20/3	240884	4
25	415	15	240/415	25	254/440	15	FAZT-B25/3	240885	4
32	415	10	240/415	20	254/440	15	FAZT-B32/3	142493	4
40	415	10	240/415	20	254/440	15	FAZT-B40/3	142494	4
4-pole									
1	415	15	240/415	25	254/440	15	FAZT-B1/4	240922	3
2	415	15	240/415	25	254/440	15	FAZT-B2/4	240927	3
3	415	15	240/415	25	254/440	15	FAZT-B3/4	240930	3
4	415	15	240/415	25	254/440	15	FAZT-B4/4	240931	3
6	415	15	240/415	25	254/440	15	FAZT-B6/4	240932	3
10	415	15	240/415	25	254/440	15	FAZT-B10/4	240933	3
12	415	15	240/415	25	254/440	15	FAZT-B12/4	240934	3
13	415	15	240/415	25	254/440	15	FAZT-B13/4	240935	3
15	415	15	240/415	25	254/440	15	FAZT-B15/4	240936	3
16	415	15	240/415	25	254/440	15	FAZT-B16/4	240937	3
20	415	15	240/415	25	254/440	15	FAZT-B20/4	240938	3
25	415	15	240/415	25	254/440	15	FAZT-B25/4	240939	3
32	415	10	240/415	20	254/440	15	FAZT-B32/4	142501	3
40	415	10	240/415	20	254/440	15	FAZT-B40/4	142502	3

Characteristic C

Rated current I_n (A)	Rated voltage acc. to IEC/EN 60898-1 (V)	Breaking capacity acc. to IEC/EN 60898-1 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Type Designation	Article No.	Units per package
1-pole									
1	240	15	240	25	254	15	FAZT-C1/1	240798	12
2	240	15	240	25	254	15	FAZT-C2/1	240799	12
3	240	15	240	25	254	15	FAZT-C3/1	240800	12
4	240	15	240	25	254	15	FAZT-C4/1	240801	12
6	240	15	240	25	254	15	FAZT-C6/1	240802	12
10	240	15	240	25	254	15	FAZT-C10/1	240803	12
12	240	15	240	25	254	15	FAZT-C12/1	240804	12
13	240	15	240	25	254	15	FAZT-C13/1	240805	12
15	240	15	240	25	254	15	FAZT-C15/1	240806	12
16	240	15	240	25	254	15	FAZT-C16/1	240807	12
20	240	15	240	25	254	15	FAZT-C20/1	240808	12
25	240	15	240	25	254	15	FAZT-C25/1	240809	12
32	240	10	240	20	254	15	FAZT-C32/1	141909	12
40	240	10	240	20	254	15	FAZT-C40/1	142480	12
2-pole									
1	415	15	240/415	25	254/440	15	FAZT-C1/2	240832	6
2	415	15	240/415	25	254/440	15	FAZT-C2/2	240833	6
3	415	15	240/415	25	254/440	15	FAZT-C3/2	240838	6
4	415	15	240/415	25	254/440	15	FAZT-C4/2	240843	6
6	415	15	240/415	25	254/440	15	FAZT-C6/2	240850	6
10	415	15	240/415	25	254/440	15	FAZT-C10/2	240855	6
12	415	15	240/415	25	254/440	15	FAZT-C12/2	240858	6
13	415	15	240/415	25	254/440	15	FAZT-C13/2	240859	6
15	415	15	240/415	25	254/440	15	FAZT-C15/2	240860	6
16	415	15	240/415	25	254/440	15	FAZT-C16/2	240861	6
20	415	15	240/415	25	254/440	15	FAZT-C20/2	240862	6
25	415	15	240/415	25	254/440	15	FAZT-C25/2	240863	6
32	415	10	240/415	20	254/440	15	FAZT-C32/2	142487	6
40	415	10	240/415	20	254/440	15	FAZT-C40/2	142488	6

SG53212



SG53212



Characteristic C

SG53512



SG56012



Rated current I_n (A)	Rated voltage acc. to IEC/EN 60898-1 (V)	Breaking capacity acc. to IEC/EN 60898-1 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Type Designation	Article No.	Units per package
3-pole									
1	415	15	240/415	25	254/440	15	FAZT-C1/3	240886	4
2	415	15	240/415	25	254/440	15	FAZT-C2/3	240887	4
3	415	15	240/415	25	254/440	15	FAZT-C3/3	240888	4
4	415	15	240/415	25	254/440	15	FAZT-C4/3	240889	4
6	415	15	240/415	25	254/440	15	FAZT-C6/3	240890	4
10	415	15	240/415	25	254/440	15	FAZT-C10/3	240891	4
12	415	15	240/415	25	254/440	15	FAZT-C12/3	240892	4
13	415	15	240/415	25	254/440	15	FAZT-C13/3	240893	4
15	415	15	240/415	25	254/440	15	FAZT-C15/3	240894	4
16	415	15	240/415	25	254/440	15	FAZT-C16/3	240895	4
20	415	15	240/415	25	254/440	15	FAZT-C20/3	240896	4
25	415	15	240/415	25	254/440	15	FAZT-C25/3	240897	4
32	415	10	240/415	20	254/440	15	FAZT-C32/3	142495	4
40	415	10	240/415	20	254/440	15	FAZT-C40/3	142496	4
4-pole									
1	415	15	240/415	25	254/440	15	FAZT-C1/4	240940	3
2	415	15	240/415	25	254/440	15	FAZT-C2/4	240941	3
3	415	15	240/415	25	254/440	15	FAZT-C3/4	240945	3
4	415	15	240/415	25	254/440	15	FAZT-C4/4	240949	3
6	415	15	240/415	25	254/440	15	FAZT-C6/4	240955	3
10	415	15	240/415	25	254/440	15	FAZT-C10/4	240959	3
12	415	15	240/415	25	254/440	15	FAZT-C12/4	240962	3
13	415	15	240/415	25	254/440	15	FAZT-C13/4	240963	3
15	415	15	240/415	25	254/440	15	FAZT-C15/4	240964	3
16	415	15	240/415	25	254/440	15	FAZT-C16/4	240965	3
20	415	15	240/415	25	254/440	15	FAZT-C20/4	240966	3
25	415	15	240/415	25	254/440	15	FAZT-C25/4	240967	3
32	415	10	240/415	20	254/440	15	FAZT-C32/4	142503	3
40	415	10	240/415	20	254/440	15	FAZT-C40/4	142504	3

Characteristic D

Rated current I_n (A)	Rated voltage acc.to IEC/EN 60898-1 (V)	Breaking capacity acc. to IEC/EN 60898-1 (kA)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Type Designation	Article No.	Units per package
1-pole							
1	240	15	240	25	FAZT-D1/1	240810	12
2	240	15	240	25	FAZT-D2/1	240811	12
3	240	15	240	25	FAZT-D3/1	240812	12
4	240	15	240	25	FAZT-D4/1	240813	12
6	240	15	240	25	FAZT-D6/1	240814	12
10	240	15	240	25	FAZT-D10/1	240815	12
12	240	15	240	25	FAZT-D12/1	240816	12
13	240	15	240	25	FAZT-D13/1	240817	12
15	240	15	240	20	FAZT-D15/1	240818	12
16	240	15	240	20	FAZT-D16/1	240819	12
20	240	10	240	20	FAZT-D20/1	142481	12
25	240	10	240	15	FAZT-D25/1	142482	12
32	240	10	240	15	FAZT-D32/1	142483	12
40	240	10	240	15	FAZT-D40/1	142484	12
2-pole							
1	415	15	240/415	25	FAZT-D1/2	240864	6
2	415	15	240/415	25	FAZT-D2/2	240865	6
3	415	15	240/415	25	FAZT-D3/2	240866	6
4	415	15	240/415	25	FAZT-D4/2	240867	6
6	415	15	240/415	25	FAZT-D6/2	240868	6
10	415	15	240/415	25	FAZT-D10/2	240869	6
12	415	15	240/415	25	FAZT-D12/2	240870	6
13	415	15	240/415	25	FAZT-D13/2	240871	6
15	415	15	240/415	20	FAZT-D15/2	240872	6
16	415	15	240/415	20	FAZT-D16/2	240873	6
20	415	10	240/415	20	FAZT-D20/2	142489	6
25	415	10	240/415	15	FAZT-D25/2	142490	6
32	415	10	240/415	15	FAZT-D32/2	142491	6
40	415	10	240/415	15	FAZT-D40/2	142492	6

SG53212



SG55212



Characteristic D

SG53512



SG56012

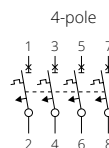
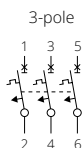
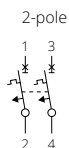


Rated current I_n (A)	Rated voltage acc. to IEC/EN 60898-1 (V)	Breaking capacity acc. to IEC/EN 60898-1 (kA)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Type Designation	Article No.	Units per package
3-pole							
1	415	15	240/415	25	FAZT-D1/3	240898	4
2	415	15	240/415	25	FAZT-D2/3	240899	4
3	415	15	240/415	25	FAZT-D3/3	240900	4
4	415	15	240/415	25	FAZT-D4/3	240901	4
6	415	15	240/415	25	FAZT-D6/3	240902	4
10	415	15	240/415	25	FAZT-D10/3	240903	4
12	415	15	240/415	25	FAZT-D12/3	240904	4
13	415	15	240/415	25	FAZT-D13/3	240905	4
15	415	15	240/415	25	FAZT-D15/3	240910	4
16	415	15	240/415	25	FAZT-D16/3	240915	4
20	415	10	240/415	20	FAZT-D20/3	142497	4
25	415	10	240/415	15	FAZT-D25/3	142498	4
32	415	10	240/415	15	FAZT-D32/3	142499	4
40	415	10	240/415	15	FAZT-D40/3	142500	4
4-pole							
1	415	15	240/415	25	FAZT-D1/4	240968	3
2	415	15	240/415	25	FAZT-D2/4	240969	3
3	415	15	240/415	25	FAZT-D3/4	240970	3
4	415	15	240/415	25	FAZT-D4/4	240971	3
6	415	15	240/415	25	FAZT-D6/4	240975	3
10	415	15	240/415	25	FAZT-D10/4	240979	3
12	415	15	240/415	25	FAZT-D12/4	240985	3
13	415	15	240/415	25	FAZT-D13/4	240989	3
15	415	15	240/415	25	FAZT-D15/4	240992	3
16	415	15	240/415	25	FAZT-D16/4	240993	3
20	415	10	240/415	20	FAZT-D20/4	142505	3
25	415	10	240/415	15	FAZT-D25/4	142506	3
32	415	10	240/415	15	FAZT-D32/4	142507	3
40	415	10	240/415	15	FAZT-D40/4	142508	3

Technical data

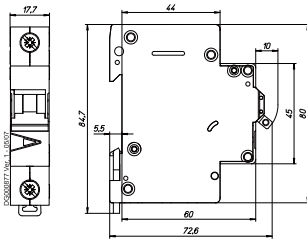
FAZ-T			
Productstandard		IEC/EN 60947-2 IEC/EN 60898-1	
Number of poles		1-pole, 2-pole, 3-pole, 4-pole	
Mechanical specifications			
Device width		17.7 mm (1-pole), 27 mm (1+N-pole), 36 mm (2-pole), 54 mm (3-pole), 72mm (3+N-pole), 72 mm (4-pole)	
Frame size		45 mm	
Socket size		80 mm	
Device depth		60 mm	
Terminals		Lift terminal	
Terminal capacity rigid solid/stranded wire		1-25 mm²	
Terminal screw		M5 (with slotted screw acc. to EN ISO 4757-Z2, PZ2)	
Terminal torque		Max. 2.4 Nm	
Snap on fixing		Tristable (on DIN rail acc. to EN 50022)	
Finger proof		Acc. to VBG4, ÖVE EN-6	
Degree of Protection (DIN VDE 0470)			
Surface mounted		IP 20	
Built-in behind panel		IP 40	
Contact position indicator		Red / green	
Electrical specifications			
Rated voltage	U _n	255/440 V AC (B Curve, C Curve), 240/415 V AC (D Curve) 60Vdc per pole	
Rated current	I _n	Characteristic B, C, D: 1, 2, 3, 4, 6, 10, 12, 13, 15, 16, 20, 25, 32, 40 A	
Rated insulation voltage	U _i	440 V AC	
Rated impulse withstand voltage	U _{imp}	4 kV (1.2/50)µsec	
Tripping characteristic			
Conventional non-tripping current		I _{nt} = 1.13 I _n	
Conventional tripping current		I _t = 1.45 I _n	
Reference temperature		30 °C	
Temperature factor		0.4% /K	
Instantaneous tripping current		I _{mt} Characteristic B: 3 I _n < I _{mt} = 5 I _n ·t (I _{mt}) < 0.1 sec Characteristic C: 5 I _n < I _{mt} = 10 I _n ·t (I _{mt}) < 0.1 sec Characteristic D: 10 I _n < I _{mt} = 20 I _n ·t (I _{mt}) < 0.1 sec	
Rated ultimate short-circuit braking capacity	I _{cu} (IEC/EN 60947-2)	Characteristic B	1-25 A: 25 kA, 32-40 A: 20 kA
		Characteristic C	1-25 A: 25 kA, 32-40 A: 20 kA
		Characteristic D	1p/1p+N/2p - 1-13 A: 25 kA, 15-20 A: 20 kA, 25-40 A: 15 kA 3p/3p+N/4p - 1-16 A: 25 kA, 20 A: 20 kA, 25-40 A: 15 kA
Rated service short-circuit braking capacity	I _{cs} (IEC/EN 60947-2)	I _{cu} = 25 kA --> I _{CS} = 12.5 kA: 240/415 V AC; I _{cu} = 15 kA: 255/440 V AC I _{cu} = 20 kA --> I _{CS} = 10 kA: 240/415 V AC; I _{cu} = 15 kA: 255/440 V AC I _{cu} = 15 kA --> I _{CS} = 7.5 kA	
Rated short-circuit braking capacity	I _{cn} (IEC/EN 60898-1)	Characteristic B	1-25 A: 15 kA, 32-40 A: 10 kA
		Characteristic C	1-25 A: 15 kA, 32-40 A: 10 kA
		Characteristic D	1-16 A: 15 kA, 20-40 A: 10 kA
Selectivity class		3 (acc. to EN 60898)	
Number of electrical operations		> 4000 (IEC/EN 60898)	
Number of mechanical operations		> 10000 (IEC/EN 60947)	
Climatic conditions		Acc. to IEC 68-2 (25..55 °C / 90..95% RH)	
Operating temperature range		-40 °C to +75 °C	

Connection diagram

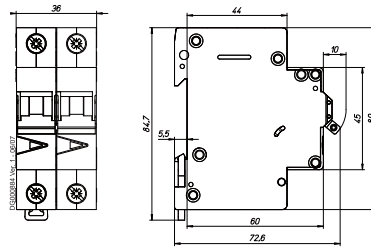


FAZ-T Dimensions (mm)

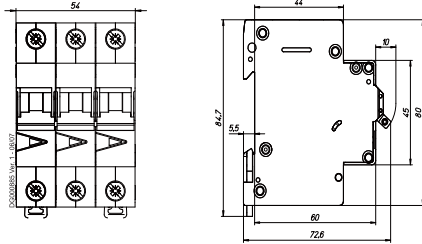
1-pole



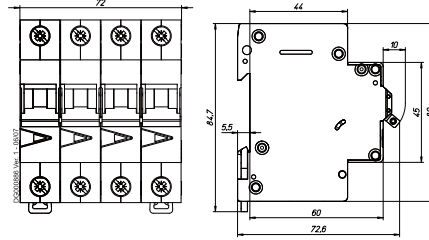
2-pole



3-pole

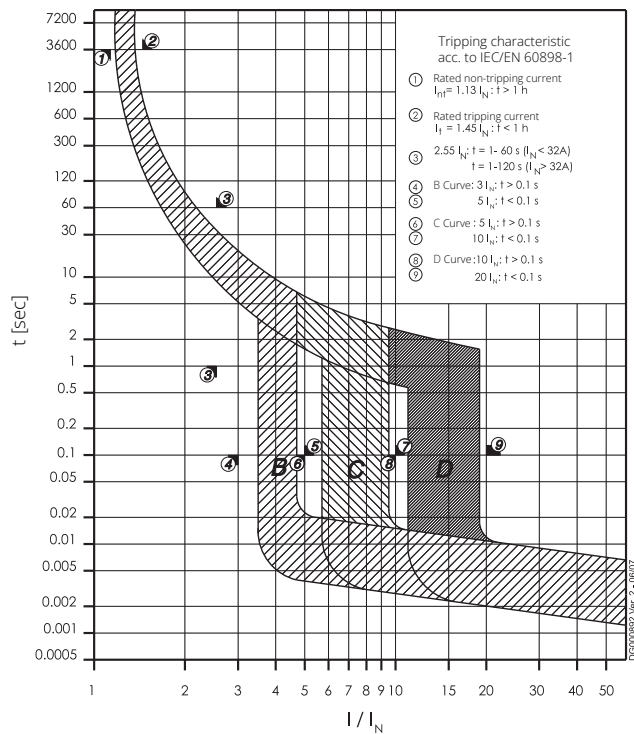


4-pole



FAZ-T Tripping Characteristic

Characteristics B, C and D - EN60898



FAZ-NA, FAZ-RT Miniature Circuit Breakers



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FAZ-NA, FAZ-RT Miniature Circuit Breakers

Product Description

- Complies with UL489, CSA No.5 and IEC 60947-2 standards;
- In with UL 1077 or CSA NO.235 approvals for practical applications;
- Auxiliary switches and voltage releases are suitable for secondary mountings;
- Removable wiring screws (FAZ-..-RT) for use with ring lugs;
- Red-green contact status indicator;
- Rail clips are easy to install and remove;
- Certification: CCC, CB, CE, UL.

FAZ-...-NA Miniature Circuit Breakers (MCBs)

Characteristic B

SG53012



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
1-pole							
1	254	15	277	10	FAZ-B1/1-NA	132414	12
1.5	254	15	277	10	FAZ-B1,5/1-NA	132415	12
2	254	15	277	10	FAZ-B2/1-NA	132416	12
3	254	15	277	10	FAZ-B3/1-NA	132417	12
4	254	15	277	10	FAZ-B4/1-NA	132418	12
5	254	15	277	10	FAZ-B5/1-NA	132419	12
6	254	15	277	10	FAZ-B6/1-NA	132680	12
7	254	15	277	10	FAZ-B7/1-NA	132681	12
8	254	15	277	10	FAZ-B8/1-NA	132682	12
10	254	15	277	10	FAZ-B10/1-NA	132683	12
13	254	15	277	10	FAZ-B13/1-NA	132684	12
15	254	15	277	14	FAZ-B15/1-NA	132685	12
16	254	15	277	14	FAZ-B16/1-NA	132686	12
20	254	15	277	14	FAZ-B20/1-NA	132687	12
25	254	15	277	14	FAZ-B25/1-NA	132688	12
30	254	15	277	10	FAZ-B30/1-NA	132689	12
32	254	15	277	10	FAZ-B32/1-NA	132690	12
35	254	15	240	10	FAZ-B35/1-NA	132691	12
40	254	15	240	10	FAZ-B40/1-NA	132692	12
50	240	15	240	10	FAZ-B50/1-NA	190779	12
63	240	15	240	10	FAZ-B63/1-NA	190780	12

SG56812



2-pole							
1	440	15	480Y/277	10	FAZ-B1/2-NA	132693	6
1.5	440	15	480Y/277	10	FAZ-B1,5/2-NA	132694	6
2	440	15	480Y/277	10	FAZ-B2/2-NA	132695	6
3	440	15	480Y/277	10	FAZ-B3/2-NA	132696	6
4	440	15	480Y/277	10	FAZ-B4/2-NA	132697	6
5	440	15	480Y/277	10	FAZ-B5/2-NA	132698	6
6	440	15	480Y/277	10	FAZ-B6/2-NA	132699	6
7	440	15	480Y/277	10	FAZ-B7/2-NA	132700	6
8	440	15	480Y/277	10	FAZ-B8/2-NA	132701	6
10	440	15	480Y/277	10	FAZ-B10/2-NA	132702	6
13	440	15	480Y/277	10	FAZ-B13/2-NA	132703	6
15	440	15	480Y/277	14	FAZ-B15/2-NA	132704	6
16	440	15	480Y/277	14	FAZ-B16/2-NA	132705	6
20	440	15	480Y/277	14	FAZ-B20/2-NA	132706	6
25	440	15	480Y/277	14	FAZ-B25/2-NA	132707	6
30	440	15	480Y/277	10	FAZ-B30/2-NA	132708	6
32	440	15	480Y/277	10	FAZ-B32/2-NA	132709	6
35	440	15	240	10	FAZ-B35/2-NA	132710	6
40	440	15	240	10	FAZ-B40/2-NA	132711	6
50	415	15	240	10	FAZ-B50/2-NA	190783	6
63	415	15	240	10	FAZ-B63/2-NA	190784	6

Characteristic B

SG56912



wa_sg01017



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
3-pole							
1	440	15	480V/277	10	FAZ-B1/3-NA	132712	4
1.5	440	15	480V/277	10	FAZ-B1,5/3-NA	132713	4
2	440	15	480V/277	10	FAZ-B2/3-NA	132714	4
3	440	15	480V/277	10	FAZ-B3/3-NA	132715	4
4	440	15	480V/277	10	FAZ-B4/3-NA	132716	4
5	440	15	480V/277	10	FAZ-B5/3-NA	132717	4
6	440	15	480V/277	10	FAZ-B6/3-NA	132718	4
7	440	15	480V/277	10	FAZ-B7/3-NA	132719	4
8	440	15	480V/277	10	FAZ-B8/3-NA	132720	4
10	440	15	480V/277	10	FAZ-B10/3-NA	132721	4
13	440	15	480V/277	10	FAZ-B13/3-NA	132722	4
15	440	15	480V/277	14	FAZ-B15/3-NA	132723	4
16	440	15	480V/277	14	FAZ-B16/3-NA	132724	4
20	440	15	480V/277	14	FAZ-B20/3-NA	132725	4
25	440	15	480V/277	14	FAZ-B25/3-NA	132726	4
30	440	15	480V/277	10	FAZ-B30/3-NA	132727	4
32	440	15	480V/277	10	FAZ-B32/3-NA	132728	4
35	440	15	240	10	FAZ-B35/3-NA	132729	4
40	440	15	240	10	FAZ-B40/3-NA	132730	4
50	415	15	240	10	FAZ-B50/3-NA	190787	4
63	415	15	240	10	FAZ-B63/3-NA	190788	4
4-pole							
1	440	15	480V/277	10	FAZ-B1/4-NA	190899	3
1.5	440	15	480V/277	10	FAZ-B1,5/4-NA	190900	3
2	440	15	480V/277	10	FAZ-B2/4-NA	190901	3
3	440	15	480V/277	10	FAZ-B3/4-NA	190902	3
4	440	15	480V/277	10	FAZ-B4/4-NA	190903	3
5	440	15	480V/277	10	FAZ-B5/4-NA	190904	3
6	440	15	480V/277	10	FAZ-B6/4-NA	190905	3
7	440	15	480V/277	10	FAZ-B7/4-NA	190906	3
8	440	15	480V/277	10	FAZ-B8/4-NA	190927	3
10	440	15	480V/277	10	FAZ-B10/4-NA	190928	3
13	440	15	480V/277	10	FAZ-B13/4-NA	190907	3
15	440	15	480V/277	14	FAZ-B15/4-NA	190908	3
16	440	15	480V/277	14	FAZ-B16/4-NA	190909	3
20	440	15	480V/277	14	FAZ-B20/4-NA	190910	3
25	440	15	480V/277	14	FAZ-B25/4-NA	190911	3
30	440	15	480V/277	10	FAZ-B30/4-NA	190912	3
32	440	15	480V/277	10	FAZ-B32/4-NA	190913	3
35	440	15	240	10	FAZ-B35/4-NA	190914	3
40	440	15	240	10	FAZ-B40/4-NA	190915	3
50	415	15	240	10	FAZ-B50/4-NA	190789	3
63	415	15	240	10	FAZ-B63/4-NA	190790	3

Characteristic C

SG53012



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
1-pole							
0.5	254	15	277	10	FAZ-C0,5/1-NA	181883	12
1	254	15	277	10	FAZ-C1/1-NA	181885	12
1.5	254	15	277	10	FAZ-C1,5/1-NA	181887	12
2	254	15	277	10	FAZ-C2/1-NA	181889	12
3	254	15	277	10	FAZ-C3/1-NA	181891	12
4	254	15	277	10	FAZ-C4/1-NA	181893	12
5	254	15	277	10	FAZ-C5/1-NA	181895	12
6	254	15	277	10	FAZ-C6/1-NA	181897	12
7	254	15	277	10	FAZ-C7/1-NA	181899	12
8	254	15	277	10	FAZ-C8/1-NA	181901	12
10	254	15	277	10	FAZ-C10/1-NA	181903	12
13	254	15	277	10	FAZ-C13/1-NA	181905	12
15	254	15	277	14	FAZ-C15/1-NA	181907	12
16	254	15	277	14	FAZ-C16/1-NA	181909	12
20	254	15	277	14	FAZ-C20/1-NA	181911	12
25	254	15	277	14	FAZ-C25/1-NA	181913	12
30	254	15	277	10	FAZ-C30/1-NA	181915	12
32	254	15	277	10	FAZ-C32/1-NA	181917	12
35	254	15	277	10	FAZ-C35/1-NA	CBE07216	12
40	254	15	277	10	FAZ-C40/1-NA	CBE07217	12
50	240	15	240	10	FAZ-C50/1-NA	CBE05776	12
63	240	15	240	10	FAZ-C63/1-NA	CBE05777	12

SG56812



2-pole							
0.5	440	15	480Y/277	10	FAZ-C0,5/2-NA	181923	6
1	440	15	480Y/277	10	FAZ-C1/2-NA	181925	6
1.5	440	15	480Y/277	10	FAZ-C1,5/2-NA	181927	6
2	440	15	480Y/277	10	FAZ-C2/2-NA	181929	6
3	440	15	480Y/277	10	FAZ-C3/2-NA	181931	6
4	440	15	480Y/277	10	FAZ-C4/2-NA	181933	6
5	440	15	480Y/277	10	FAZ-C5/2-NA	181935	6
6	440	15	480Y/277	10	FAZ-C6/2-NA	181937	6
7	440	15	480Y/277	10	FAZ-C7/2-NA	181939	6
8	440	15	480Y/277	10	FAZ-C8/2-NA	181941	6
10	440	15	480Y/277	10	FAZ-C10/2-NA	181943	6
13	440	15	480Y/277	10	FAZ-C13/2-NA	181945	6
15	440	15	480Y/277	14	FAZ-C15/2-NA	181947	6
16	440	15	480Y/277	14	FAZ-C16/2-NA	181949	6
20	440	15	480Y/277	14	FAZ-C20/2-NA	181951	6
25	440	15	480Y/277	14	FAZ-C25/2-NA	181953	6
30	440	15	480Y/277	10	FAZ-C30/2-NA	181955	6
32	440	15	480Y/277	10	FAZ-C32/2-NA	181957	6
35	440	15	480Y/277	10	FAZ-C35/2-NA	CBE07218	6
40	440	15	480Y/277	10	FAZ-C40/2-NA	CBE07219	6
50	415	15	240	10	FAZ-C50/2-NA	CBE05778	6
63	415	15	240	10	FAZ-C63/2-NA	CBE05779	6

Characteristic C

SG56912



Rated current I_n (A)	Rated voltage acc. to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc. to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
3-pole							
0.5	440	15	480V/277	10	FAZ-C0,5/3-NA	181963	4
1	440	15	480V/277	10	FAZ-C1/3-NA	181965	4
1.5	440	15	480V/277	10	FAZ-C1,5/3-NA	181967	4
2	440	15	480V/277	10	FAZ-C2/3-NA	181969	4
3	440	15	480V/277	10	FAZ-C3/3-NA	181971	4
4	440	15	480V/277	10	FAZ-C4/3-NA	181973	4
5	440	15	480V/277	10	FAZ-C5/3-NA	181975	4
6	440	15	480V/277	10	FAZ-C6/3-NA	181977	4
7	440	15	480V/277	10	FAZ-C7/3-NA	181979	4
8	440	15	480V/277	10	FAZ-C8/3-NA	181981	4
10	440	15	480V/277	10	FAZ-C10/3-NA	181983	4
13	440	15	480V/277	10	FAZ-C13/3-NA	181985	4
15	440	15	480V/277	14	FAZ-C15/3-NA	181987	4
16	440	15	480V/277	14	FAZ-C16/3-NA	181989	4
20	440	15	480V/277	14	FAZ-C20/3-NA	181991	4
25	440	15	480V/277	14	FAZ-C25/3-NA	181993	4
30	440	15	480V/277	10	FAZ-C30/3-NA	181995	4
32	440	15	480V/277	10	FAZ-C32/3-NA	181997	4
35	440	15	480V/277	10	FAZ-C35/3-NA	CBE07220	4
40	440	15	480V/277	10	FAZ-C40/3-NA	CBE07221	4
50	415	15	240	10	FAZ-C50/3-NA	CBE05780	4
63	415	15	240	10	FAZ-C63/3-NA	CBE05781	4

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4-pole							
0.5	440	15	480V/277	10	FAZ-C0,5/4-NA	CBE05782	3
1	440	15	480V/277	10	FAZ-C1/4-NA	CBE05783	3
1.5	440	15	480V/277	10	FAZ-C1,5/4-NA	CBE05784	3
2	440	15	480V/277	10	FAZ-C2/4-NA	CBE05785	3
3	440	15	480V/277	10	FAZ-C3/4-NA	CBE05786	3
4	440	15	480V/277	10	FAZ-C4/4-NA	CBE05787	3
5	440	15	480V/277	10	FAZ-C5/4-NA	CBE05788	3
6	440	15	480V/277	10	FAZ-C6/4-NA	CBE05789	3
7	440	15	480V/277	10	FAZ-C7/4-NA	CBE05790	3
8	440	15	480V/277	10	FAZ-C8/4-NA	CBE05791	3
10	440	15	480V/277	10	FAZ-C10/4-NA	CBE05792	3
13	440	15	480V/277	10	FAZ-C13/4-NA	CBE05793	3
15	440	15	480V/277	14	FAZ-C15/4-NA	CBE05794	3
16	440	15	480V/277	14	FAZ-C16/4-NA	CBE05795	3
20	440	15	480V/277	14	FAZ-C20/4-NA	CBE05796	3
25	440	15	480V/277	14	FAZ-C25/4-NA	CBE05797	3
30	440	15	480V/277	10	FAZ-C30/4-NA	CBE05798	3
32	440	15	480V/277	10	FAZ-C32/4-NA	CBE05799	3
35	440	15	480V/277	10	FAZ-C35/4-NA	CBE07222	3
40	440	15	480V/277	10	FAZ-C40/4-NA	CBE07223	3
50	415	15	240	10	FAZ-C50/4-NA	CBE05802	3
63	415	15	240	10	FAZ-C63/4-NA	CBE05803	3

Characteristic D

SG53012



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
1-pole							
0.5	240	15	277	10	FAZ-D0,5/1-NA	182003	12
1	240	15	277	10	FAZ-D1/1-NA	182005	12
1.5	240	15	277	10	FAZ-D1,5/1-NA	182007	12
2	240	15	277	10	FAZ-D2/1-NA	182009	12
3	240	15	277	10	FAZ-D3/1-NA	182011	12
4	240	15	277	10	FAZ-D4/1-NA	182013	12
5	240	15	277	10	FAZ-D5/1-NA	182015	12
6	240	15	277	10	FAZ-D6/1-NA	182017	12
7	240	15	277	10	FAZ-D7/1-NA	182019	12
8	240	15	277	10	FAZ-D8/1-NA	182021	12
10	240	15	277	10	FAZ-D10/1-NA	181831	12
13	240	15	277	14	FAZ-D13/1-NA	181833	12
15	240	15	277	14	FAZ-D15/1-NA	181835	12
16	240	15	277	14	FAZ-D16/1-NA	181837	12
20	240	15	277	14	FAZ-D20/1-NA	181839	12
25	240	15	277	10	FAZ-D25/1-NA	181841	12
30	240	15	277	10	FAZ-D30/1-NA	182023	12
32	240	15	277	10	FAZ-D32/1-NA	182025	12
35	240	15	277	10	FAZ-D35/1-NA	CBE07224	12
40	240	15	277	10	FAZ-D40/1-NA	CBE07225	12

SG56812



2-pole							
0.5	415	15	480Y/277	10	FAZ-D0,5/2-NA	182031	6
1	415	15	480Y/277	10	FAZ-D1/2-NA	182033	6
1.5	415	15	480Y/277	10	FAZ-D1,5/2-NA	182035	6
2	415	15	480Y/277	10	FAZ-D2/2-NA	182037	6
3	415	15	480Y/277	10	FAZ-D3/2-NA	182039	6
4	415	15	480Y/277	10	FAZ-D4/2-NA	182041	6
5	415	15	480Y/277	10	FAZ-D5/2-NA	182043	6
6	415	15	480Y/277	10	FAZ-D6/2-NA	182045	6
7	415	15	480Y/277	10	FAZ-D7/2-NA	182047	6
8	415	15	480Y/277	10	FAZ-D8/2-NA	182049	6
10	415	15	480Y/277	10	FAZ-D10/2-NA	182051	6
13	415	15	480Y/277	14	FAZ-D13/2-NA	182053	6
15	415	15	480Y/277	14	FAZ-D15/2-NA	182055	6
16	415	15	480Y/277	14	FAZ-D16/2-NA	182057	6
20	415	15	480Y/277	14	FAZ-D20/2-NA	182059	6
25	415	15	480Y/277	10	FAZ-D25/2-NA	182061	6
30	415	15	480Y/277	10	FAZ-D30/2-NA	182063	6
32	415	15	480Y/277	10	FAZ-D32/2-NA	182065	6
35	415	15	480Y/277	10	FAZ-D35/2-NA	CBE07226	6
40	415	15	480Y/277	10	FAZ-D40/2-NA	CBE07227	6

Characteristic D

SG56912



wa_sg01017



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
3-pole							
0.5	415	15	480V/277	10	FAZ-D0,5/3-NA	182071	4
1	415	15	480V/277	10	FAZ-D1/3-NA	182073	4
1.5	415	15	480V/277	10	FAZ-D1,5/3-NA	182075	4
2	415	15	480V/277	10	FAZ-D2/3-NA	182077	4
3	415	15	480V/277	10	FAZ-D3/3-NA	182079	4
4	415	15	480V/277	10	FAZ-D4/3-NA	182081	4
5	415	15	480V/277	10	FAZ-D5/3-NA	182083	4
6	415	15	480V/277	10	FAZ-D6/3-NA	182085	4
7	415	15	480V/277	10	FAZ-D7/3-NA	182087	4
8	415	15	480V/277	10	FAZ-D8/3-NA	182089	4
10	415	15	480V/277	10	FAZ-D10/3-NA	182091	4
13	415	15	480V/277	14	FAZ-D13/3-NA	182093	4
15	415	15	480V/277	14	FAZ-D15/3-NA	182095	4
16	415	15	480V/277	14	FAZ-D16/3-NA	182097	4
20	415	15	480V/277	14	FAZ-D20/3-NA	182099	4
25	415	15	480V/277	10	FAZ-D25/3-NA	182101	4
30	415	15	480V/277	10	FAZ-D30/3-NA	182103	4
32	415	15	480V/277	10	FAZ-D32/3-NA	182105	4
35	415	15	480V/277	10	FAZ-D35/3-NA	CBE07228	4
40	415	15	480V/277	10	FAZ-D40/3-NA	CBE07229	4
4-pole							
0.5	415	15	480V/277	10	FAZ-D0,5/4-NA	CBE05832	3
1	415	15	480V/277	10	FAZ-D1/4-NA	CBE05833	3
1.5	415	15	480V/277	10	FAZ-D1,5/4-NA	CBE05834	3
2	415	15	480V/277	10	FAZ-D2/4-NA	CBE05835	3
3	415	15	480V/277	10	FAZ-D3/4-NA	CBE05836	3
4	415	15	480V/277	10	FAZ-D4/4-NA	CBE05837	3
5	415	15	480V/277	10	FAZ-D5/4-NA	CBE05838	3
6	415	15	480V/277	10	FAZ-D6/4-NA	CBE05839	3
7	415	15	480V/277	10	FAZ-D7/4-NA	CBE05840	3
8	415	15	480V/277	10	FAZ-D8/4-NA	CBE05841	3
10	415	15	480V/277	10	FAZ-D10/4-NA	CBE05842	3
13	415	15	480V/277	10	FAZ-D13/4-NA	CBE05843	3
15	415	15	480V/277	14	FAZ-D15/4-NA	CBE05844	3
16	415	15	480V/277	14	FAZ-D16/4-NA	CBE05845	3
20	415	15	480V/277	14	FAZ-D20/4-NA	CBE05846	3
25	415	15	480V/277	14	FAZ-D25/4-NA	CBE05847	3
30	415	15	480V/277	10	FAZ-D30/4-NA	CBE05848	3
32	415	15	480V/277	10	FAZ-D32/4-NA	CBE05849	3
35	415	15	480V/277	10	FAZ-D35/4-NA	CBE07230	3
40	415	15	480V/277	10	FAZ-D40/4-NA	CBE07231	3

FAZ-RT Miniature Circuit Breakers (MCBs)

Characteristic B

SG56412



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
1-pole							
1	254	15	277	10	FAZ-B1/1-RT	132731	12
1,5	254	15	277	10	FAZ-B1,5/1-RT	132732	12
2	254	15	277	10	FAZ-B2/1-RT	132733	12
3	254	15	277	10	FAZ-B3/1-RT	132734	12
4	254	15	277	10	FAZ-B4/1-RT	132735	12
5	254	15	277	10	FAZ-B5/1-RT	132736	12
6	254	15	277	10	FAZ-B6/1-RT	132737	12
7	254	15	277	10	FAZ-B7/1-RT	132738	12
8	254	15	277	10	FAZ-B8/1-RT	132739	12
10	254	15	277	10	FAZ-B10/1-RT	132740	12
13	254	15	277	10	FAZ-B13/1-RT	132741	12
15	254	15	277	14	FAZ-B15/1-RT	132742	12
16	254	15	277	14	FAZ-B16/1-RT	132743	12
20	254	15	277	14	FAZ-B20/1-RT	132744	12
25	254	15	277	14	FAZ-B25/1-RT	132745	12
30	254	15	277	10	FAZ-B30/1-RT	132746	12
32	254	15	277	10	FAZ-B32/1-RT	132747	12
35	254	15	240	10	FAZ-B35/1-RT	132748	12
40	254	15	240	10	FAZ-B40/1-RT	132749	12
50	240	15	240	10	FAZ-B50/1-RT	190795	12
63	240	15	240	10	FAZ-B63/1-RT	190796	12

SG56712



2-pole							
1	440	15	480Y/277	10	FAZ-B1/2-RT	132750	6
1,5	440	15	480Y/277	10	FAZ-B1,5/2-RT	132751	6
2	440	15	480Y/277	10	FAZ-B2/2-RT	132752	6
3	440	15	480Y/277	10	FAZ-B3/2-RT	132753	6
4	440	15	480Y/277	10	FAZ-B4/2-RT	132754	6
5	440	15	480Y/277	10	FAZ-B5/2-RT	132755	6
6	440	15	480Y/277	10	FAZ-B6/2-RT	132756	6
7	440	15	480Y/277	10	FAZ-B7/2-RT	132757	6
8	440	15	480Y/277	10	FAZ-B8/2-RT	132758	6
10	440	15	480Y/277	10	FAZ-B10/2-RT	132759	6
13	440	15	480Y/277	10	FAZ-B13/2-RT	132760	6
15	440	15	480Y/277	14	FAZ-B15/2-RT	132761	6
16	440	15	480Y/277	14	FAZ-B16/2-RT	132762	6
20	440	15	480Y/277	14	FAZ-B20/2-RT	132763	6
25	440	15	480Y/277	14	FAZ-B25/2-RT	132764	6
30	440	15	480Y/277	10	FAZ-B30/2-RT	132765	6
32	440	15	480Y/277	10	FAZ-B32/2-RT	132766	6
35	440	15	240	10	FAZ-B35/2-RT	132767	6
40	440	15	240	10	FAZ-B40/2-RT	132768	6
50	415	15	240	10	FAZ-B50/2-RT	190799	6
63	415	15	240	10	FAZ-B63/2-RT	190800	6

Characteristic B

SG57012



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
3-pole							
1	440	15	480V/277	10	FAZ-B1/3-RT	132769	4
1,5	440	15	480V/277	10	FAZ-B1,5/3-RT	132770	4
2	440	15	480V/277	10	FAZ-B2/3-RT	132771	4
3	440	15	480V/277	10	FAZ-B3/3-RT	132772	4
4	440	15	480V/277	10	FAZ-B4/3-RT	132773	4
5	440	15	480V/277	10	FAZ-B5/3-RT	132774	4
6	440	15	480V/277	10	FAZ-B6/3-RT	132775	4
7	440	15	480V/277	10	FAZ-B7/3-RT	132776	4
8	440	15	480V/277	10	FAZ-B8/3-RT	132777	4
10	440	15	480V/277	10	FAZ-B10/3-RT	132778	4
13	440	15	480V/277	10	FAZ-B13/3-RT	132779	4
15	440	15	480V/277	14	FAZ-B15/3-RT	132780	4
16	440	15	480V/277	14	FAZ-B16/3-RT	132781	4
20	440	15	480V/277	14	FAZ-B20/3-RT	132782	4
25	440	15	480V/277	14	FAZ-B25/3-RT	132783	4
30	440	15	480V/277	10	FAZ-B30/3-RT	132784	4
32	440	15	480V/277	10	FAZ-B32/3-RT	132785	4
35	440	15	240	10	FAZ-B35/3-RT	132786	4
40	440	15	240	10	FAZ-B40/3-RT	132787	4
50	415	15	240	10	FAZ-B50/3-RT	190803	4
63	415	15	240	10	FAZ-B63/3-RT	190804	4

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4-pole							
1	440	15	480V/277	10	FAZ-B1/4-RT	190844	3
1,5	440	15	480V/277	10	FAZ-B1,5/4-RT	190845	3
2	440	15	480V/277	10	FAZ-B2/4-RT	190846	3
3	440	15	480V/277	10	FAZ-B3/4-RT	190847	3
4	440	15	480V/277	10	FAZ-B4/4-RT	190848	3
5	440	15	480V/277	10	FAZ-B5/4-RT	190849	3
6	440	15	480V/277	10	FAZ-B6/4-RT	190850	3
7	440	15	480V/277	10	FAZ-B7/4-RT	190851	3
8	440	15	480V/277	10	FAZ-B8/4-RT	190852	3
10	440	15	480V/277	10	FAZ-B10/4-RT	190853	3
13	440	15	480V/277	10	FAZ-B13/4-RT	190854	3
15	440	15	480V/277	14	FAZ-B15/4-RT	190855	3
16	440	15	480V/277	14	FAZ-B16/4-RT	190856	3
20	440	15	480V/277	14	FAZ-B20/4-RT	190857	3
25	440	15	480V/277	14	FAZ-B25/4-RT	190858	3
30	440	15	480V/277	10	FAZ-B30/4-RT	190859	3
32	440	15	480V/277	10	FAZ-B32/4-RT	190860	3
35	440	15	240	10	FAZ-B35/4-RT	190861	3
40	440	15	240	10	FAZ-B40/4-RT	190862	3
50	415	15	240	10	FAZ-B50/4-RT	190805	3
63	415	15	240	10	FAZ-B63/4-RT	190806	3

Characteristic C

SG56412



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
1-pole							
0.5	254	15	277	10	FAZ-C0,5/1-RT	181884	12
1	254	15	277	10	FAZ-C1/1-RT	181886	12
1,5	254	15	277	10	FAZ-C1,5/1-RT	181888	12
2	254	15	277	10	FAZ-C2/1-RT	181890	12
3	254	15	277	10	FAZ-C3/1-RT	181892	12
4	254	15	277	10	FAZ-C4/1-RT	181894	12
5	254	15	277	10	FAZ-C5/1-RT	181896	12
6	254	15	277	10	FAZ-C6/1-RT	181898	12
7	254	15	277	10	FAZ-C7/1-RT	181900	12
8	254	15	277	10	FAZ-C8/1-RT	181902	12
10	254	15	277	10	FAZ-C10/1-RT	181904	12
13	254	15	277	10	FAZ-C13/1-RT	181906	12
15	254	15	277	14	FAZ-C15/1-RT	181908	12
16	254	15	277	14	FAZ-C16/1-RT	181910	12
20	254	15	277	14	FAZ-C20/1-RT	181912	12
25	254	15	277	14	FAZ-C25/1-RT	181914	12
30	254	15	277	10	FAZ-C30/1-RT	181916	12
32	254	15	277	10	FAZ-C32/1-RT	181918	12
35	254	15	277	10	FAZ-C35/1-RT	CBE07232	12
40	254	15	277	10	FAZ-C40/1-RT	CBE07233	12
50	240	15	240	10	FAZ-C50/1-RT	CBE05804	12
63	240	15	240	10	FAZ-C63/1-RT	CBE05805	12

SG56712



2-pole							
0.5	440	15	480Y/277	10	FAZ-C0,5/2-RT	181924	6
1	440	15	480Y/277	10	FAZ-C1/2-RT	181926	6
1,5	440	15	480Y/277	10	FAZ-C1,5/2-RT	181928	6
2	440	15	480Y/277	10	FAZ-C2/2-RT	181930	6
3	440	15	480Y/277	10	FAZ-C3/2-RT	181932	6
4	440	15	480Y/277	10	FAZ-C4/2-RT	181934	6
5	440	15	480Y/277	10	FAZ-C5/2-RT	181936	6
6	440	15	480Y/277	10	FAZ-C6/2-RT	181938	6
7	440	15	480Y/277	10	FAZ-C7/2-RT	181940	6
8	440	15	480Y/277	10	FAZ-C8/2-RT	181942	6
10	440	15	480Y/277	10	FAZ-C10/2-RT	181944	6
13	440	15	480Y/277	10	FAZ-C13/2-RT	181946	6
15	440	15	480Y/277	14	FAZ-C15/2-RT	181948	6
16	440	15	480Y/277	14	FAZ-C16/2-RT	181950	6
20	440	15	480Y/277	14	FAZ-C20/2-RT	181952	6
25	440	15	480Y/277	14	FAZ-C25/2-RT	181954	6
30	440	15	480Y/277	10	FAZ-C30/2-RT	181956	6
32	440	15	480Y/277	10	FAZ-C32/2-RT	181958	6
35	440	15	480Y/277	10	FAZ-C35/2-RT	CBE07234	6
40	440	15	480Y/277	10	FAZ-C40/2-RT	CBE07235	6
50	415	15	240	10	FAZ-C50/2-RT	CBE05806	6
63	415	15	240	10	FAZ-C63/2-RT	CBE05807	6

Characteristic C

SG57012



wa_sg01017



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
3-pole							
0.5	440	15	480V/277	10	FAZ-C0,5/3-RT	181964	4
1	440	15	480V/277	10	FAZ-C1/3-RT	181966	4
1,5	440	15	480V/277	10	FAZ-C1,5/3-RT	181968	4
2	440	15	480V/277	10	FAZ-C2/3-RT	181970	4
3	440	15	480V/277	10	FAZ-C3/3-RT	181972	4
4	440	15	480V/277	10	FAZ-C4/3-RT	181974	4
5	440	15	480V/277	10	FAZ-C5/3-RT	181976	4
6	440	15	480V/277	10	FAZ-C6/3-RT	181978	4
7	440	15	480V/277	10	FAZ-C7/3-RT	181980	4
8	440	15	480V/277	10	FAZ-C8/3-RT	181982	4
10	440	15	480V/277	10	FAZ-C10/3-RT	181984	4
13	440	15	480V/277	10	FAZ-C13/3-RT	181986	4
15	440	15	480V/277	14	FAZ-C15/3-RT	181988	4
16	440	15	480V/277	14	FAZ-C16/3-RT	181990	4
20	440	15	480V/277	14	FAZ-C20/3-RT	181992	4
25	440	15	480V/277	14	FAZ-C25/3-RT	181994	4
30	440	15	480V/277	10	FAZ-C30/3-RT	181996	4
32	440	15	480V/277	10	FAZ-C32/3-RT	181998	4
35	440	15	480V/277	10	FAZ-C35/3-RT	CBE07236	4
40	440	15	480V/277	10	FAZ-C40/3-RT	CBE07237	4
50	415	15	240	10	FAZ-C50/3-RT	CBE05808	4
63	415	15	240	10	FAZ-C63/3-RT	CBE05809	4
4-pole							
0.5	440	15	480V/277	10	FAZ-C0,5/4-RT	CBE05810	3
1	440	15	480V/277	10	FAZ-C1/4-RT	CBE05811	3
1,5	440	15	480V/277	10	FAZ-C1,5/4-RT	CBE05812	3
2	440	15	480V/277	10	FAZ-C2/4-RT	CBE05813	3
3	440	15	480V/277	10	FAZ-C3/4-RT	CBE05814	3
4	440	15	480V/277	10	FAZ-C4/4-RT	CBE05815	3
5	440	15	480V/277	10	FAZ-C5/4-RT	CBE05816	3
6	440	15	480V/277	10	FAZ-C6/4-RT	CBE05817	3
7	440	15	480V/277	10	FAZ-C7/4-RT	CBE05818	3
8	440	15	480V/277	10	FAZ-C8/4-RT	CBE05819	3
10	440	15	480V/277	10	FAZ-C10/4-RT	CBE05820	3
13	440	15	480V/277	10	FAZ-C13/4-RT	CBE05821	3
15	440	15	480V/277	14	FAZ-C15/4-RT	CBE05822	3
16	440	15	480V/277	14	FAZ-C16/4-RT	CBE05823	3
20	440	15	480V/277	14	FAZ-C20/4-RT	CBE05824	3
25	440	15	480V/277	14	FAZ-C25/4-RT	CBE05825	3
30	440	15	480V/277	10	FAZ-C30/4-RT	CBE05826	3
32	440	15	480V/277	10	FAZ-C32/4-RT	CBE05827	3
35	440	15	480V/277	10	FAZ-C35/4-RT	CBE07238	3
40	440	15	480V/277	10	FAZ-C40/4-RT	CBE07239	3
50	415	15	240	10	FAZ-C50/4-RT	CBE05830	3
63	415	15	240	10	FAZ-C63/4-RT	CBE05831	3

Characteristic D

SG56412



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
1-pole							
0.5	240	15	277	10	FAZ-D0,5/1-RT	182004	12
1	240	15	277	10	FAZ-D1/1-RT	182006	12
1,5	240	15	277	10	FAZ-D1,5/1-RT	182008	12
2	240	15	277	10	FAZ-D2/1-RT	182010	12
3	240	15	277	10	FAZ-D3/1-RT	182012	12
4	240	15	277	10	FAZ-D4/1-RT	182014	12
5	240	15	277	10	FAZ-D5/1-RT	182016	12
6	240	15	277	10	FAZ-D6/1-RT	182018	12
7	240	15	277	10	FAZ-D7/1-RT	182020	12
8	240	15	277	10	FAZ-D8/1-RT	182022	12
10	240	15	277	10	FAZ-D10/1-RT	181832	12
13	240	15	277	14	FAZ-D13/1-RT	181834	12
15	240	15	277	14	FAZ-D15/1-RT	181836	12
16	240	15	277	14	FAZ-D16/1-RT	181838	12
20	240	15	277	14	FAZ-D20/1-RT	181840	12
25	240	15	277	10	FAZ-D25/1-RT	181842	12
30	240	15	277	10	FAZ-D30/1-RT	182024	12
32	240	15	277	10	FAZ-D32/1-RT	182026	12
35	240	15	277	10	FAZ-D35/1-RT	CBE07240	12
40	240	15	277	10	FAZ-D40/1-RT	CBE07241	12

SG56712



2-pole							
0.5	415	15	480Y/277	10	FAZ-D0,5/2-RT	182032	6
1	415	15	480Y/277	10	FAZ-D1/2-RT	182034	6
1,5	415	15	480Y/277	10	FAZ-D1,5/2-RT	182036	6
2	415	15	480Y/277	10	FAZ-D2/2-RT	182038	6
3	415	15	480Y/277	10	FAZ-D3/2-RT	182040	6
4	415	15	480Y/277	10	FAZ-D4/2-RT	182042	6
5	415	15	480Y/277	10	FAZ-D5/2-RT	182044	6
6	415	15	480Y/277	10	FAZ-D6/2-RT	182046	6
7	415	15	480Y/277	10	FAZ-D7/2-RT	182048	6
8	415	15	480Y/277	10	FAZ-D8/2-RT	182050	6
10	415	15	480Y/277	10	FAZ-D10/2-RT	182052	6
13	415	15	480Y/277	14	FAZ-D13/2-RT	182054	6
15	415	15	480Y/277	14	FAZ-D15/2-RT	182056	6
16	415	15	480Y/277	14	FAZ-D16/2-RT	182058	6
20	415	15	480Y/277	14	FAZ-D20/2-RT	182060	6
25	415	15	480Y/277	10	FAZ-D25/2-RT	182062	6
30	415	15	480Y/277	10	FAZ-D30/2-RT	182064	6
32	415	15	480Y/277	10	FAZ-D32/2-RT	182066	6
35	415	15	480Y/277	10	FAZ-D35/2-RT	CBE07242	6
40	415	15	480Y/277	10	FAZ-D40/2-RT	CBE07243	6

1.3

xEffect Series Miniature Circuit Breakers

FAZ-NA, FAZ-RT Miniature Circuit Breakers

Characteristic D

SG57012



wa_sg01017



Rated current I_n (A)	Rated voltage acc.to IEC/EN 60947-2 (V)	Breaking capacity acc. to IEC/EN 60947-2 (kA)	Rated voltage acc.to UL489 (V)	Breaking capacity acc. to UL489 (kA)	Type Designation	Article No.	Units per package
3-pole							
0,5	415	15	480V/277	10	FAZ-D0,5/3-RT	182072	4
1	415	15	480V/277	10	FAZ-D1/3-RT	182074	4
1,5	415	15	480V/277	10	FAZ-D1,5/3-RT	182076	4
2	415	15	480V/277	10	FAZ-D2/3-RT	182078	4
3	415	15	480V/277	10	FAZ-D3/3-RT	182080	4
4	415	15	480V/277	10	FAZ-D4/3-RT	182082	4
5	415	15	480V/277	10	FAZ-D5/3-RT	182084	4
6	415	15	480V/277	10	FAZ-D6/3-RT	182086	4
7	415	15	480V/277	10	FAZ-D7/3-RT	182088	4
8	415	15	480V/277	10	FAZ-D8/3-RT	182090	4
10	415	15	480V/277	10	FAZ-D10/3-RT	182092	4
13	415	15	480V/277	14	FAZ-D13/3-RT	182094	4
15	415	15	480V/277	14	FAZ-D15/3-RT	182096	4
16	415	15	480V/277	14	FAZ-D16/3-RT	182098	4
20	415	15	480V/277	14	FAZ-D20/3-RT	182100	4
25	415	15	480V/277	10	FAZ-D25/3-RT	182102	4
30	415	15	480V/277	10	FAZ-D30/3-RT	182104	4
32	415	15	480V/277	10	FAZ-D32/3-RT	182106	4
35	415	15	480V/277	10	FAZ-D35/3-RT	CBE07244	4
40	415	15	480V/277	10	FAZ-D40/3-RT	CBE07245	4
4-pole							
0,5	415	15	480V/277	10	FAZ-D0,5/4-RT	CBE05852	3
1	415	15	480V/277	10	FAZ-D1/4-RT	CBE05853	3
1,5	415	15	480V/277	10	FAZ-D1,5/4-RT	CBE05854	3
2	415	15	480V/277	10	FAZ-D2/4-RT	CBE05855	3
3	415	15	480V/277	10	FAZ-D3/4-RT	CBE05856	3
4	415	15	480V/277	10	FAZ-D4/4-RT	CBE05857	3
5	415	15	480V/277	10	FAZ-D5/4-RT	CBE05858	3
6	415	15	480V/277	10	FAZ-D6/4-RT	CBE05859	3
7	415	15	480V/277	10	FAZ-D7/4-RT	CBE05860	3
8	415	15	480V/277	10	FAZ-D8/4-RT	CBE05861	3
10	415	15	480V/277	10	FAZ-D10/4-RT	CBE05862	3
13	415	15	480V/277	10	FAZ-D13/4-RT	CBE05863	3
15	415	15	480V/277	14	FAZ-D15/4-RT	CBE05864	3
16	415	15	480V/277	14	FAZ-D16/4-RT	CBE05865	3
20	415	15	480V/277	14	FAZ-D20/4-RT	CBE05866	3
25	415	15	480V/277	14	FAZ-D25/4-RT	CBE05867	3
30	415	15	480V/277	10	FAZ-D30/4-RT	CBE07246	3
32	415	15	480V/277	10	FAZ-D32/4-RT	CBE07247	3
35	415	15	480V/277	10	FAZ-D35/4-RT	CBE05870	3
40	415	15	480V/277	10	FAZ-D40/4-RT	CBE05871	3

FAZ-NA, -RT Miniature Circuit Breakers (MCBs)

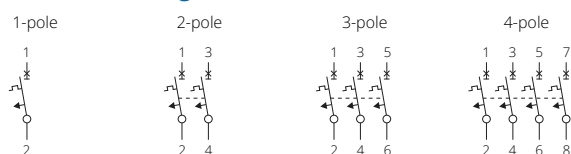
Accessories:

Auxiliary switch for subsequent installation	Z-IHK-NA	CBE03224
Tripping signal contact for subsequent installation	Z-NHK	248434
Shunt trip release	FAZ-XAA-NA12-110V AC	102037
	FAZ-XAA-NA110-415V AC	102036
Switching interlock	Z-IS/SPE-1TE	274418

Technical data IEC/EN

FAZ-...-NA, -RT		
Productstandard		IEC/EN 60947-2
Number of poles		1, 2, 3, 4
Mechanical specifications		
Device width		17.7mm (1-pole), 35.4 mm (2-pole), 53.1 mm (3-pole), 70.8 mm (4-pole)
Frame size		45 mm
Socket size		105 mm
Device depth		60 mm
Terminals		Lift terminal / ring-tongue
Terminal capacity rigid solid/stranded wire		1-25 mm ²
Terminal screw		M5 (with slotted screw Pozidriv PZ2)
Terminal torque		Max. 2.4 Nm
Snap on fixing		Tristable (on DIN Rail acc. to IEC/EN 60715)
Degree of Protection (DIN VDE 0470)		
Surface mounted		IP 20
Built-in behind panel		IP 40
Contact position indicator		Red / green
Electrical specifications		
Rated voltage	U _n	B and C Curves (up to 40A): 255/440 V AC B and C Curves (50A and 63A), and D Curve : 240/415 V AC
Rated current	I _n	0.5, 1, 1.5, 2, 3, 4, 5, 6, 7, 8, 10, 13, 15, 16, 20, 25, 30, 32, 35, 40, 50, 63 A
Rated insulation voltage	U _i	440 V AC
Rated impulse withstand voltage	U _{imp}	4 kV (1.2/50)µsec
Tripping characteristic		
Conventional non-tripping current		I _{nt} = 1.05 I _n
Conventional tripping current		I _t = 1.30 I _n
Reference temperature		30 °C
Temperature factor		0.5% /K
Instantaneous tripping current	I _{mt}	Characteristic B: 3 I _n < I _{mt} = 5 I _n ·t (I _{mt}) < 0.1 sec Characteristic C: 5 I _n < I _{mt} = 10 I _n ·t (I _{mt}) < 0.1 sec Characteristic D: 10 I _n < I _{mt} = 20 I _n ·t (I _{mt}) < 0.1 sec
Rated short-circuit braking capacity	I _{cu}	15 kA
Service short circuit capacity	I _{cs}	7.5 kA
Selectivity class		3 (acc. to EN 60898)
Number of electrical operations		> 1500
Number of mechanical operations		> 10000
Climatic conditions		Acc. to IEC 68-2 (25..55°C / 90..95% RH)
Operating temperature range		-40°C to +75°C

Connection diagram



1.3

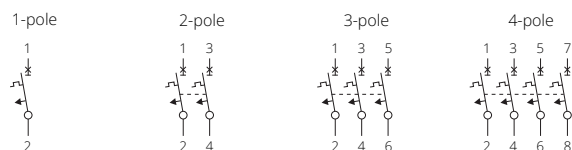
xEffect Series Miniature Circuit Breakers

FAZ-NA, FAZ-RT Miniature Circuit Breakers

Technical data UL

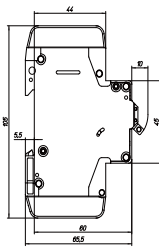
FAZ-...-NA, -RT		
Product standard		UL 489 CSA C22.2 No. 5-02
Number of poles		1, 2, 3, 4
Mechanical specifications		
Device width		0.697 in. (1-pole), 1.394 in. (2-pole), 2.090 in. (3-pole), 2.788 in. (4-pole)
Frame size		1.772 in.
Socket size		4.134 in.
Device depth		2.362 in.
Terminals		Lift terminal / ring-tongue
Terminal capacity		1 Wire: #18-6 AWG (Cu only) 2 Wires: #18-10 AWG (Cu only)
Terminal screw		M5 (with slotted screw Pozidriv PZ2)
Terminal torque		#18-12 AWG: 2.4 Nm (21 lb-in) #10-8 AWG: 2.8 Nm (25 lb-in) # 6 AWG: 4 Nm (36 lb-in)
Snap on fixing		Tristable (on DIN Rail acc. to IEC/EN 60715)
Contact position indicator		Red / green
Electrical specifications		
Rated voltage	U_n	0.5-32A: 35-40A (C/D curve) 480Y/277 V AC 35-40A(B curve) 50-63A: 240 V AC 60V DC (only for 1P), 125V DC (only for 2P)
Rated current	I_n	0.5, 1, 1.5, 2, 3, 4, 5, 6, 7, 8, 10, 13, 15, 16, 20, 25, 30, 32, 35, 40, 50 (not D), 63 (not D) A
Tripping characteristic		
Conventional non-tripping current		$I_{nt} = 1.00 I_n$
Conventional tripping current		$I_t = 1.35 I_n$
Reference temperature		40 °C
Temperature factor		0.5% /K
Instantaneous tripping current	I_{mt}	Characteristic B: $3 I_n < I_{mt} = 5 I_n \cdot t (I_{mt}) < 0.1 \text{ sec}$ Characteristic C: $5 I_n < I_{mt} = 10 I_n \cdot t (I_{mt}) < 0.1 \text{ sec}$ Characteristic D: $10 I_n < I_{mt} = 20 I_n \cdot t (I_{mt}) < 0.1 \text{ sec}$
Current interrupting rating		
10 KA		B0.5-13A, B30-63A, C0.5-13A, C30-63A, D0.5-10A, D25-40A
14 KA		B15-25A, C15-25A, D13-20A
Current limiting		
High breaking current 240V/10kA		$I^2t = 42 \text{ kA}^2\text{s}$ and $I_{peak} = 6.2 \text{ kA}$
Medium breaking current 240V/5kA		$I^2t = 24 \text{ kA}^2\text{s}$ and $I_{peak} = 4.2 \text{ kA}$
Threshold current 240V/2.6kA		$I^2t = 18 \text{ kA}^2\text{s}$ and $I_{peak} = 2.9 \text{ kA}$
High breaking current 480Y/277V/10kA		$I^2t = 60 \text{ kA}^2\text{s}$ and $I_{peak} = 6.2 \text{ kA}$
High breaking current 480Y/277V/14kA		$I^2t = 65 \text{ kA}^2\text{s}$ and $I_{peak} = 7.5 \text{ kA}$
Medium breaking current 480Y/277V/5kA		$I^2t = 36 \text{ kA}^2\text{s}$ and $I_{peak} = 4.6 \text{ kA}$
Threshold current 480Y/277V /2.08kA		$I^2t = 15 \text{ kA}^2\text{s}$ and $I_{peak} = 2.2 \text{ kA}$
Selectivity class		3 (acc. to EN 60898)
Number of electrical operations		6000
Number of mechanical operations		10000
Climatic conditions		Acc. to IEC 68-2 (25..55 °C / 90..95% RH)
Operating temperature range		-5 °C to +40 °C

Connection diagram

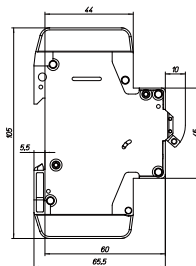


FAZ-...-NA, -RT Dimensions (mm)

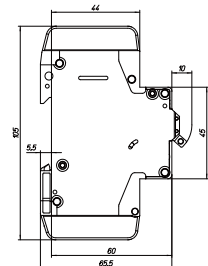
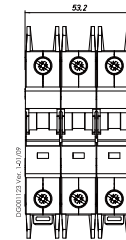
1-pole



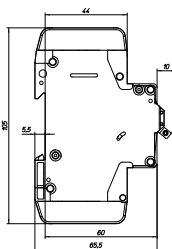
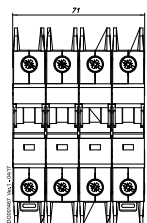
2-pole



3-pole

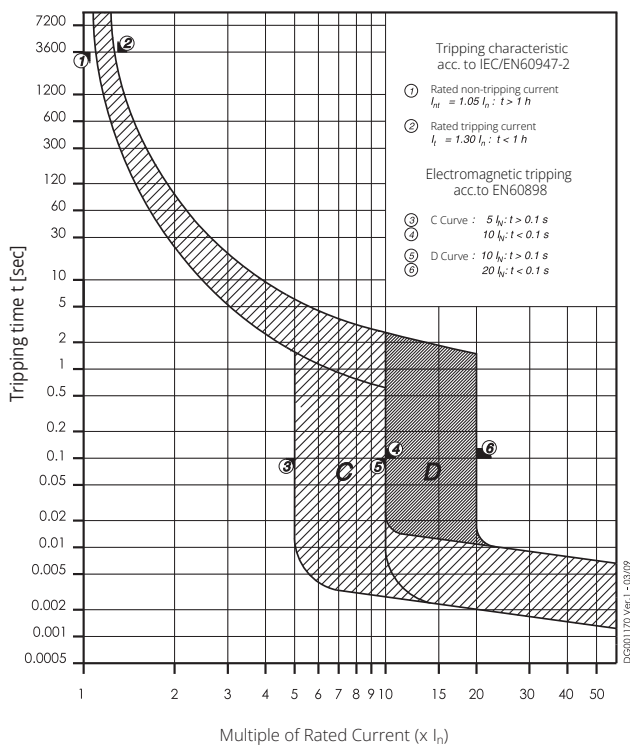


4-pole

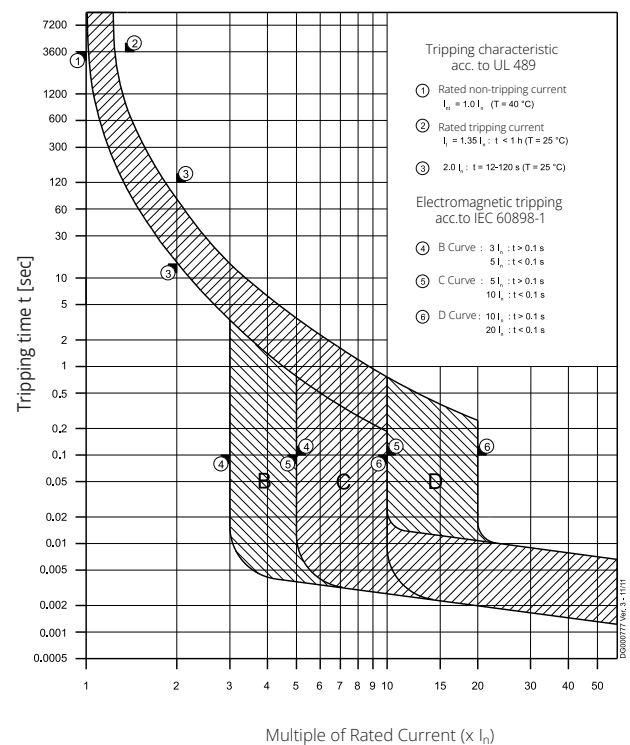


FAZ-...-NA, -RT Tripping Characteristic

Characteristic C and D – EN/IEC 60947-2



Characteristic B, C and D – UL489



Accessories for RCDs, MCBs, Combined RCD/MCB Devices



Contents

Description

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Accessories for Protective Devices

Product Description

- Auxiliary switch;
- Rcbo-tripping module;
- Shunt trip release;
- Undervoltage release;
- Remote ON/OFF controller;
- Switching interlocks;
- Terminal covers.

Accessories for Protective Devices

Auxiliary Switch Z-HK, Z-AHK; Tripping Signal Switch Z-NHK

Design: for screwing

	For Protective Device / Function	Type Designation	Article No.	Units per package
 SG34812	RCCB / 1NO+1NC	Z-HK	248432	4/120
 SG60911	RCBO, RCCB / 1NO+1NC	Z-AHK	248433	4/120
 SG61011	RCBO, RCCB / 2CO	Z-NHK	248434	4/120
 SG34412	RCCB / 1CO+1NC	Z-HD	265620	1

Specifications | Auxiliary Switch Z-HK, Z-AHK; Tripping Signal Switch Z-NHK

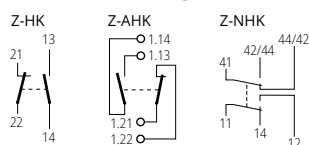
Product Description

- Design according to IEC/EN 60947-5-1, IEC/EN 62019;
- **Z-AHK, NHK:** Contact function with relative movement (selfcleaning contacts);
- **Z-NHK:** The function of one of the two change-over contacts can be switched from “auxiliary switch” to “tripping signal switch”
- Tripping signal contact transmits message of electric tripping, not mechanical switch-off.

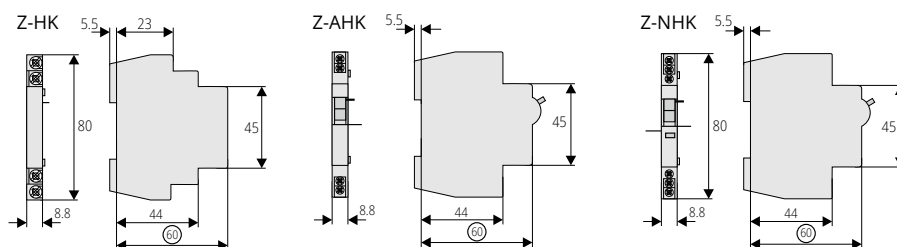
Technical Data

		Z-HK	Z-AHK	Z-NHK
Electrical				
Contact function		1NO + 1NC	1NO + 1NC	2CO
Rated voltage		250 V	250 V	250 V
Frequency		50/60 Hz	50/60 Hz	50/60 Hz
Rated current		8 A	4 A	4 A
Rated thermal current	I_{th}	8 A	4 A	4 A
Utilisation category AC13				
Rated operational current	I_e	6A/250V AC 2A/440V AC	3A/250V AC –	3A/250V AC –
Utilisation category AC15				
Rated operational current	I_e	–	2A/250V AC	2A/250V AC
Utilisation category DC12				
Rated operational current	I_e	–	0.5A/110V DC	0.5A/110V DC
Utilisation category DC13				
Rated operational current	I_e	0.5A/230V DC 2A/110V DC 4A/60V DC	– – –	– – –
Rated insulation voltage	U_i	250 V AC	250 V AC	250 V AC
Minimum operational voltage per contact	U_{min}	24 V AC/DC	5 V DC	5 V DC
Minimum operational current	I_{min}	50 mA AC/DC	10 mA DC	10 mA DC
Rated peak withstand voltage	U_{imp} (1.2/50μ)	2.5 kV	2.5 kV	2.5 kV
Conditional short circuit current (with back-up fuse 6A or FAZ-B4-HS)	I_k	1 kA	1 kA	1 kA
Max. back-up fuse, overload and short circuit		6 A gL / FAZ-4/.../B-HS	4 A gL / FAZ-4/.../B-HS	4 A gL / FAZ-4/.../B-HS
Mechanical				
Can be mounted from the left onto		RCCB	RCBO	RCBO
Can be mounted from the right onto		–	–	RCCB
Tripping indicator "electrical tripping"		–	–	Blue/White
Frame size		45 mm	45 mm	45 mm
Device height		80 mm	80 mm	80 mm
Device width		8.8 mm (0.5MU)	8.8 mm (0.5MU)	8.8 mm (0.5MU)
Mounting		Onto switching device	Onto switching device	Onto switching device
Degree of protection, built-in		IP40	IP40	IP40
Terminal protection		Finger and hand touch safe according to BGV A3, ÖVE-EN 6		
Terminals		Lift terminals	Lift terminals	Lift terminals
Terminal capacity		0.5-2.5 mm ²	0.5-2.5 mm ²	0.5-2.5 mm ²
Terminal screws		M3 (Pozidrive Z0)	M3 (Pozidrive Z0)	M3 (Pozidrive Z0)
Fastening torque of terminal screws		Max. 0.8-1.0 Nm	Max. 0.8-1.0 Nm	Max. 0.8-1.0 Nm

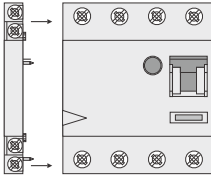
Connection diagram



Dimensions (mm)

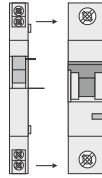


Mounting example: Z-HK+RCCB



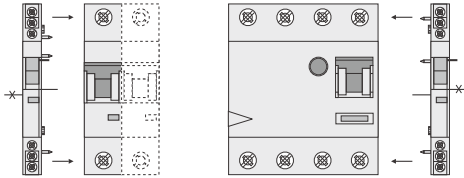
1NO+1NC 24V 50mA min.

Mounting example: Z-AHK+RCCB



1NO+1NC 5V 10mA min.

Mounting example: Z-NHK RCCB+Z-NHK



2CO 5V 10mA min.

Auxiliary Switch ZP-AHK, ZP-IHK, ZP-WHK; Tripping Signal Switch ZP-NHK

Design: for snapping

SG60811



For Protective Device / Function	Type Designation	Article No.	Units per package
MCB *), RCBO / 1NO+1NC	ZP-IHK	CBE03223	4/120

SG34612



MCB *), RCBO / 1CO	ZP-WHK	286053	4/120
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SG34512



MCB *), RCBO / 2CO	ZP-NHK	CBE03222	4/120
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*) The MCBs here refer to the FAZ series

Specifications | Auxiliary Switch ZP-AHK, ZP-IHK, ZP-WHK; Tripping Signal Switch ZP-NHK

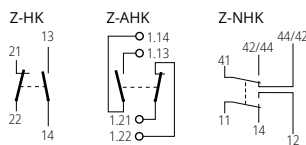
Product Description

- Design according to IEC/EN 62019;
- No screws required. Can be snapped onto MCB/RCBO;
- The specified minimum voltages are per contact - take into account particularly in case of series connection;
- Contact material and design particularly suitable for extra low voltage;
- Contacts have relative movement function (auto reset);
- **ZP-NHK:** The function of one of the two change-over contacts can be switched from "auxiliary switch" to "tripping signal switch";
- Tripping signal contact transmits message of electric tripping, not mechanical switch-off;
- **ZP-NHK:** "Operating Button" is used to check whether the auxiliary switch is wired properly at the Tripped-Signal Indication -Switched Off position. This button cannot be used to test the inter-action with the MCBs.

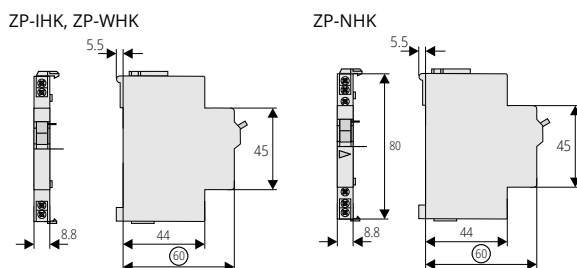
Technical Data

	ZP-IHK	ZP-WHK	ZP-NHK
Electrical			
Contact function	1NO + 1NC	1CO	2CO
Rated voltage	250 V	250 V	250 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Rated current	6 A	6 A	4 A
Rated thermal current I_{th}	6 A	6 A	4 A
Utilisation category AC13			
Rated operational current I_e	3A/250V AC	3A/250V AC	3A/250V AC
Utilisation category AC15			
Rated operational current I_e	2A/250V AC	2A/250V AC	2A/250V AC
Utilisation category DC12			
Rated operational current I_e	0.5A/110V DC	0.5A/110V DC	0.5A/110V DC
Rated insulation voltage U_i	250 V AC	250 V AC	250 V AC
Minimum operational voltage (per contact) U_{min}	5 V DC	5 V DC	5 V DC
Minimum operational current I_{min}	10 mA DC	10 mA DC	10 mA DC
Rated peak withstand voltage U_{imp} (1.2/50μ)	2.5 kV	2.5 kV	2.5 kV
Conditional short circuit current I_k (with back-up fuse FAZ-B4-HS)	1 kA	1 kA	1 kA
Max. back-up fuse, overload and short circuit	6 A gL / FAZ-B4-HS	6 A gL / FAZ-B4-HS	6 A gL / FAZ-B4-HS
Mechanical			
Can be mounted from the left onto	MCB, RCBO	MCB, RCBO	MCB, RCBO
Accessories	ZP-ASA	ZP-ASA	ZP-ASA
Tripping indicator (electrical tripping)	–	–	Blue/white
Frame size	45 mm	45 mm	45 mm
Device height	80 mm	80 mm	80 mm
Device width	8.8 mm (0.5MU)	8.8 mm (0.5MU)	8.8 mm (0.5MU)
Degree of protection (built-in)	IP40	IP40	IP40
Terminal protection	Finger and hand touch safe according to BGV A3, ÖVE-EN 6		
Terminals	Lift terminal	Lift terminal	Lift terminal
Terminal capacity	0.5-2.5 mm ²	0.5-2.5 mm ²	0.5-2.5 mm ²
Terminal screws	M4 (Pozidrive Z2)	M4 (Pozidrive Z2)	M3 (Pozidrive Z0)
Fastening torque of terminal screws	Max. 1.2 Nm	Max. 1.2 Nm	Max. 0.8-1.0 Nm

Connection diagram



Dimensions (mm)

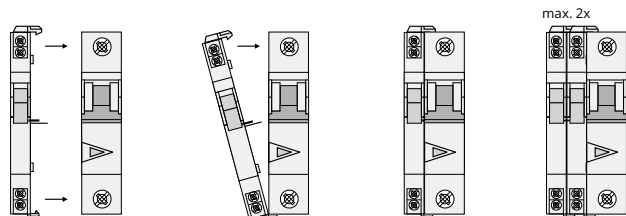


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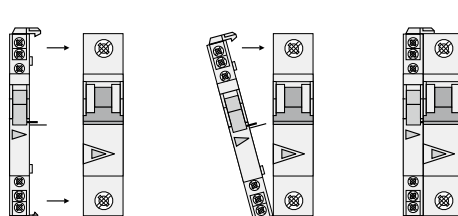
xEffect Series Miniature Circuit Breakers

Accessories for Protective Devices

Mounting example: ZP-IHK/(ZP-WHK)+MCB



Mounting example: ZP-NHK+MCB



Shunt Trip Release Z-ASA, ZP-ASA

SG00712



SG00212



Operational voltage range (V~)	Type Designation	Article No.	Units per package
To be glued on			
12-110	Z-ASA/24	248286	1/60
110-415	Z-ASA/230	248287	1/60
To be snapped on			
12-110	ZP-ASA/24	248438	1/60
110-415	ZP-ASA/230	248439	1/60

Specifications | Shunt Trip Release Z-ASA, ZP-ASA

Product Description

- Z-ASA...release for subsequent mounting onto FAZ MCBs, and ZP-ASA...release for subsequent mounting onto FAZ MCBs;
- Module width 1MU;
- Additional installation of standard auxiliary switch is possible
- Position indicator red - green
- Type ZP-ASA for snap-on mounting

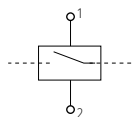
Technical Data

	Z-ASA24	Z-ASA230	ZP-ASA24	ZP-ASA230
Electrical				
Minimum pulse duration	15 ms	10 ms	15 ms	10 ms
Internal resistance	2.2 Ω	215 Ω	2.2 Ω	215 Ω
Duty cycle	100%	100%	100%	100%
Tripping time	< 20 ms	< 20 ms	< 20 ms	< 20 ms
Rated peak withstand voltage (1.2/50μs)	2.5 kV	2.5 kV	2.5 kV	2.5 kV
Endurance	> 4000 operating cycles	> 4000 operating cycles	> 4000 operating cycles	> 4000 operating cycles
AC voltage range				
Operating limit	10 V	60 V	10 V	60 V
Operational voltage range	12-110 V	110-415 V	12-110 V	110-415 V
Maximum current consumption during switch-on	15 A	2.1 A	15 A	2.1 A
Current flow time at max. current consumption	10 ms	10 ms	10 ms	10 ms
DC voltage range				
Operating limit	9 V	72 V	9 V	72 V
Operational voltage range	10-60 V	110-220 V	10-60 V	110-220 V
Maximum current consumption during switch-on	21 A	1 A	21 A	1 A
Current flow time at max. current consumption	2 ms	2 ms	2 ms	2 ms
Mechanical				
Frame size	45 mm	45 mm	45 mm	45 mm
Device height	80 mm	80 mm	80 mm	80 mm
Device width	17.5 mm (1MU)	17.5 mm (1MU)	17.5 mm (1MU)	17.5 mm (1MU)
Mounting	Bonding	Bonding	To snap on	To snap on
Degree of protection (built-in)	IP40	IP40	IP40	IP40
Terminals (above/below)	Open mouthed/lift	Open mouthed/lift	open mouthed/lift with guide	open mouthed/lift with guide
Klemmquerschnitt	1-25 mm ²	1-25 mm ²	1-25 mm ²	1-25 mm ²
Fastening torque of terminal screws	Max. 2.4 Nm	Max. 2.4 Nm	Max. 2.4 Nm	Max. 2.4 Nm

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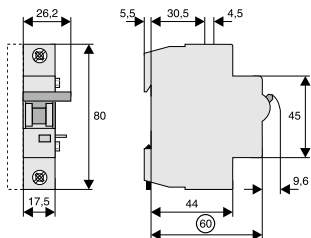
xEffect Series Miniature Circuit Breakers Accessories for Protective Devices

Connection diagram

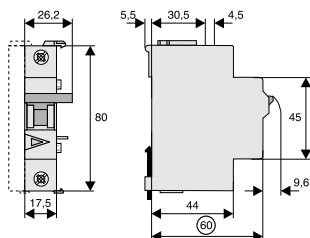


Dimensions (mm)

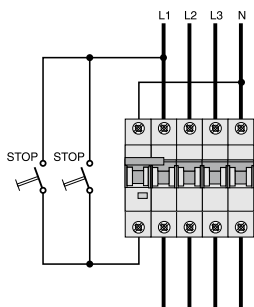
Z-ASA



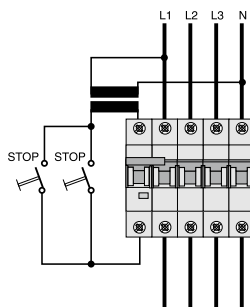
ZP-ASA



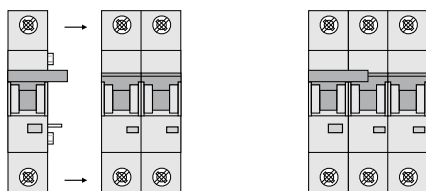
Connection Example 230 V



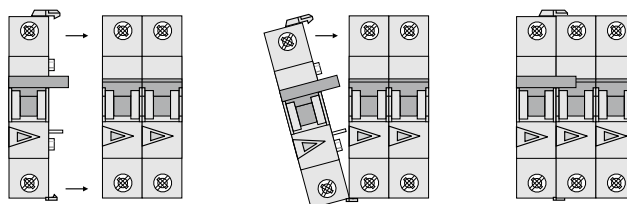
Connection Example 24 V



Mounting example: Z-ASA + MCB



Mounting example: ZP-ASA + MCB



SG78811



Undervoltage Release Z-USA, Z-USD

Operational voltage range (V~) / Function	Type Designation	Article No.	Units per package
To be screwed on			
115 / undelayed	Z-USA/115	248288	1/60
230 / undelayed	Z-USA/230	248289	1/60
400 / undelayed	Z-USA/400	248290	1/60
115 / delayed 0.4s	Z-USD/115	248292	1/60
230 / delayed 0.4s	Z-USD/230	248291	1/60

Specifications | Undervoltage Release Z-USA, Z-USD

Product Description

- Instantaneous tripping: Z-USA;
- Delay tripping: Z-USD, typ. 0,4 sec;
- Voltage control indicator blue/white;
- Can be used with FAZ MCB.

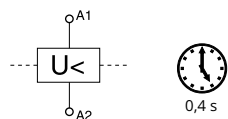
Technical Data

	Z-US./115	Z-US./230	Z-US./400
Electrical			
Rated voltage	U_n 115 V AC	230 V AC	400 V AC
Frequency	50-60 Hz	50-60 Hz	50-60 Hz
Making threshold	80% U_n	80% U_n	80% U_n
Tripping threshold	50% U_n	50% U_n	50% U_n
Mechanical			
Frame size	45 mm	45 mm	45 mm
Device height	80 mm	80 mm	80 mm
Device width	17.5 mm (1MU)	17.5 mm (1MU)	17.5 mm (1MU)
Mounting	Quick fastening on DIN rail IEC/EN 60715		
Degree of protection (built-in)	IP40	IP40	IP40
Terminals	Open mouthed/lift	Open mouthed/lift	Open mouthed/lift
Terminal capacity	1 - 2x2.5 mm ²	1 - 2x2.5 mm ²	1 - 2x2.5 mm ²
Terminal protection	Finger and hand touch safe, according to bgv a3, öve-en 6		

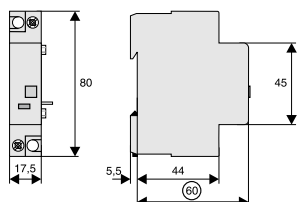
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xEffect Series Miniature Circuit Breakers Accessories for Protective Devices

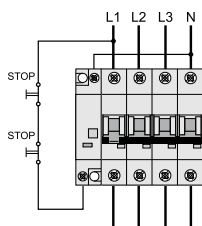
Connection diagram



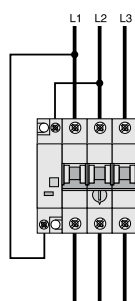
Dimensions (mm)



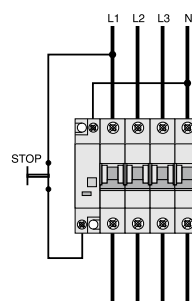
Connection Example Release



Connection Examples 400V and 230V



Connection example:
Z-USA/400 + Z-MS



Connection example:
Z-USA/230 + MCB

SG47812



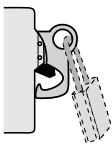
Switching Interlocks Z-IS/SPE-1TE

Description	Type Designation	Article No.	Units per package
Switching interlock without lock for MCBs and Circuit Breaker ZP-A	Z-IS/SPE-1TE	274418	5/30

Specifications | Switching Interlocks Z-IS/SPE-1TE

Product Description

- Lock is not included, and additional padlock device is required;
- Suitable for use with MCBs.



SG60711



Accessories for Miniature Circuit Breaker FAZ-...-NA, -RT

Operational Voltage Range	Type Designation	Article No.	Units per package
Auxiliary Contact Z-IHK-NA			
250 V AC	Z-IHK-NA	CBE03224	1

Specifications | Auxiliary Contact Z-IHK-NA

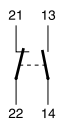
Product Description

- Design according to IEC/EN 60947-5-1, IEC/EN 62019;
- The specified minimum voltages are per contact—take into account particularly in case of series connection;
- Contact material and design particularly suitable for extra low voltage;
- Tripping signal contact transmits message of electric tripping, not mechanical switch-off;
- Will allow for > 480Y/277 VAC rating.

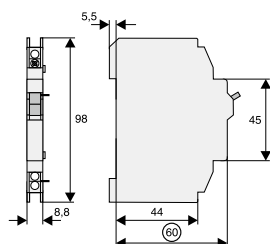
Technical Data

Z-IHK-NA		
Electrical		
Contact function		1NO + 1NC
Rated voltage		250V
Rated current		6A
Rated thermal current	I_{th}	6A
Utilization category AC13		
Rated operational current	I_e	3A/250 Vac
Utilization category AC15		
Rated operational current	I_e	2A/250 Vac
Utilization category DC12		
Rated operational current	I_e	0.5A/110 Vdc
Rated insulation voltage	U_i	250 Vac
Minimum operational voltage (per contact)	U_{min}	5 Vdc
Minimum operational current	I_{min}	10 mA AC/DC
Rated peak withstand voltage	U_{imp} (1.2/50μ)	4 kV
Conditional short circuit current (with 6A back-up fuse FAZ-B4-HS)	I_k	1 kA
Max. back-up fuse, overload and short circuit		6 A gL / FAZ-4/.../B-HS
Mechanical		
Tripping indicator (electrical tripping)		—
Frame size		45 mm
Device height		80 mm
Device width		8.8 mm (0.5MU)
Mounting		—
Degree of protection (built-in)		IP40
Terminal protection		Finger and hand touch safe according to BGV A3, ÖVE-EN 6
Terminals		Lift terminals
Terminal capacity		0.5-2.5 mm ²
Terminal screws		M3 (Pozidrive Z2)
Tightening torque of terminal screws		Max. 1.2 Nm

Connection diagram



Dimensions (mm)



SG13511



Accessories for Miniature Circuit Breaker FAZ-...-NA, -RT

Operational Voltage Range	Type Designation	Article No.	Units per package
Shunt Trip FAZ-XAA-NA			
12–110 V AC 12–60 V DC	FAZ-XAA-NA12-110VAC	102037	1
110–415 V AC 110–230 V DC	FAZ-XAA-NA110-415VAC	102036	1

Specifications | Shunt Trip FAZ-XAA-NA

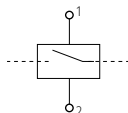
Product Description

- FAZ-NA adjacent mounting to remote trips;
- Standard auxiliary switch can be additionally installed on its left side;
- Red-green position indicator.

Technical Data

	FAZ-XAA-NA12-110VAC	FAZ-XAA-NA110-415VAC
Electrical		
Can be mounted onto	FAZ-NA / FAZ-NA-DC / FAZ-RT	FAZ-NA / FAZ-NA-DC / FAZ-RT
Operational voltage range	12–110 Vac 12–60 Vdc	12–110 Vac 12–60 Vdc
Frequency	50/60 Hz	50/60 Hz
Mechanical		
Frame size	45 mm	45 mm
Device height	105 mm	105 mm
Device width	17.5 mm	17.5 mm
Mounting	According to EN50022	
Degree of protection, built-in	IP40	IP40
Terminal protection	Finger and hand touch safe according to BGV A3 and ÖVE-EN 6	
Terminals	Open mouthed/lift	Open mouthed/lift
Terminal capacity, one and two wires	18–10 AWG	18–10 AWG

Connection diagram



Terminal Covers

Description	Type Designation	Article No.	Units per package
Terminal Covers for RCDs			
2-pole	Z-RC/AK-2TE	285385	10
4-pole	Z-RC/AK-4TE	101062	10
Terminal Covers for Add-on Device			
2-pole	Z-CV/AO-2P	221957600	10
3+4-pole	Z-CV/AO-3-4P	221957500	10
Terminal Covers for MCB, RCBO			
2-pole	Z-CV/SD-2P	221954800	10
3-pole	Z-CV/SD-3P	221954900	10
4-pole	Z-CV/SD-4P	221953900	10
Terminal Cover for MCB			
1-pole	Z7-AK-1TE	750754200	10

1.4

xEffect Series Miniature Circuit Breakers

Accessories for Protective Devices



Remote ON/OFF Controllers ZX-FW-LP

Operational Voltage Range	Type Designation	Article No.
AC230V/DC220V	ZX-FW-LPE	90000025000994
DC24V	ZX-FW-LPS	90000025000995
AC230V/DC220V	ZX-FW-FPE	90000080100106
DC24V	ZX-FW-FPS	90000080100107

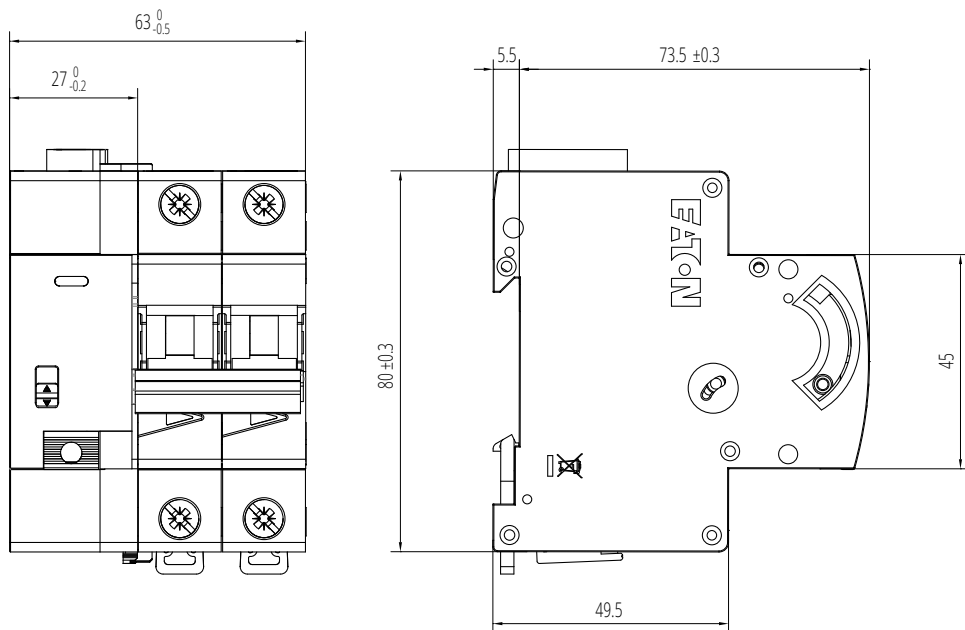
Product Features

- Modular design, and horizontal mounting side by side;
- Manual operated electric switching device is available;
- Equipped with padlock devices;
- Offers reliable anti-misoperation function;
- Closing action time <1 second, and opening action time <0.5 seconds (excluding signal triggering time);
- Fully enclosed with plastic casings, without obvious impact and noise during operation;
- Working principle: The motor is driven with an operation command to rotate the handle, to ensure the MCB to open and close. Through innovative technology, the handle in case of sudden jumps is not caught by the motor during the opening process. The motor is disengaged from the handle after the completion of electric opening and closing operations, causing no effect on its operation in manual state;
- Applies to:
 - FAZ series.

Operating and Mounting Conditions

- Operating environment temperature: -25°C - +60°C;
- Altitude: no more than 2000m;
- Maximum relative humidity: 90%;
- Power and control voltage ranges:
 - ZX-FW-LPE: 150~270V;
 - ZX-FW-FPE: 150~270V;
 - ZX-FW-LPS: 18~28V;
 - ZX-FW-FPS: 18~28V;
- Power consumption:
 - Static: 1.5W;
 - Opening and closing operation: 50W;
- Number of operations: 10,000
- Terminal wiring specification: AWG12-26 (0.13~3.3mm²);
- Terminal tightening torque: M3/0.56 Nm;
- Pollution degree: Class 2.

Dimensions (mm)





Self-Recovery Over/Under-Voltage Protector eROUA

Rated current (A)	Type Designation	Poles
40	eROUA-2-40	1P+N
63	eROUA-2-63	1P+N
40	eROUA-4-40	3P+N
63	eROUA-4-63	3P+N

General Description

The eROUA series self-recovery over/under-voltage protectors are the latest intelligent protection device specially developed by Eaton. With modular standard design, the protectors can switch off power supply circuits quickly and safely under sustained high voltage impulses when over-voltage or under-voltage events occur, to avoid accidents due to abnormal voltage feeding into terminal electrical appliances. When the voltage returns back to normal, the protectors will automatically switch back on the circuits within the specified time period, ensuring the terminal electrical appliances to operate normally when no operator is on duty.

The eROUA series protectors are applicable for users or loads with 220V AC single-phase voltage, 50Hz frequency, 63A and below rated operating current. They are mainly used for residential household incoming or power distribution protection in single-phase electrical equipment.

Product Features

- Switch off single-phase lines due to over/under-voltage faults, and switch back on the lines when the single-phase line voltage returns back to normal, with no manual operation required;
- No mal-action will be actuated by the protector due to transient or temporary over-voltage faults;
- The electrical line will not be switched back on by the protector under unstable voltage due to loosened contacts or other faults, or when the power supply is suddenly resumed after a sudden outage;
- The protector itself will not be damaged at the maximum fault voltage;

- The protector offers inverse time action characteristics, with its over-voltage action time less than 3s and under-voltage action time less than 0.3s;
- Impulse withstand voltage: 4kV (acc. to Class III electrical safety standard);
- The protector uses a light-emitting diode to indicate the operating status: Green for normal voltage indication, Red 1 for over-voltage indication, Red 2 for under-voltage indication, and Green blinking for delay recovery switch-back indication;
- Modular design, and rail mounting.

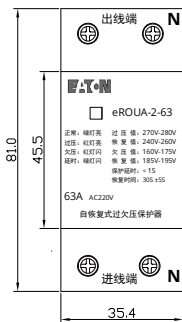
Major technical Parameters and Performances

- Operating voltage: AC230V/400V, 50Hz;
- Rated operating current: 40A, 63A;
- Overvoltage action switch-off value: 270~280Vac;
- Overvoltage recovery value: 240~260Vac;
- Undervoltage action switch-off value: 160~175Vac;
- Undervoltage recovery value: 185~195Vac;
- Delay reset switch-on time: 30±5s;
- Electrical and mechanical life: ≥50,000 operations;
- Power consumption: ≤ 2W;
- Wiring capacity: <35mm².

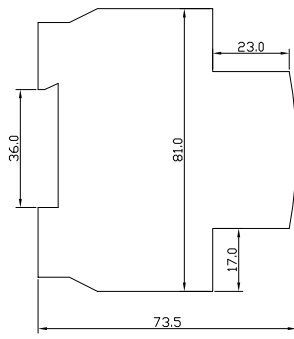
Operating Environment and Mounting Conditions

- Relative air humidity: the relative air humidity should not exceed 90% at +20°C, the relative air humidity should not exceed 50% at +40°C;
- Altitudes ≤ 2000m;
- Pollution degree: 2;
- In places with no significant vibration and shock.

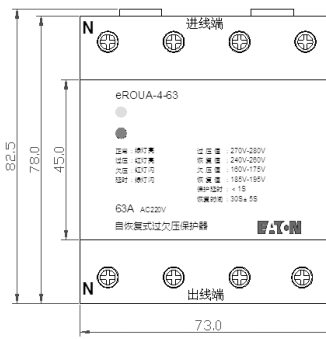
Dimensions (mm)



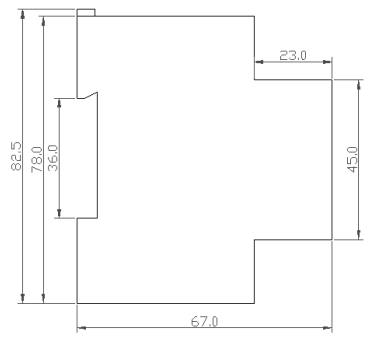
Front view



Side view



Front view



Side view

Eaton is an intelligent power management company dedicated to protecting the environment and improving the quality of life for people everywhere. We make products for the data center, utility, industrial, commercial, machine building, residential, aerospace and mobility markets. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power - today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're helping to solve the world's most urgent power management challenges and building a more sustainable society for people today and generations to come.

Founded in 1911, Eaton has continuously evolved to meet the changing and expanding needs of our stakeholders. With revenues of nearly \$25 billion in 2024, the company serves customers in more than 160 countries. Eaton entered the Chinese market in 1993 and has grown significantly since then. In 2004, Eaton moved its Asia-Pacific headquarters from Hong Kong to Shanghai. Today, Eaton has nearly 8,000 employees and 19 manufacturing facilities in China.

For more information about Eaton China, visit www.eaton.com.cn
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06-2025

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