

Circuit Breaker for Equipment thermal-magnetic, 1 pole



**Description**

- Thermal-magnetic circuit breaker
- High short circuit performance
- Availability of AC and DC in the same frame size
- DIN-Rail Mounting

**Standards**

- Approval Reference Type: AS168X
- IEC 60934
- UL 1077
- CSA C22.2

**Applications**

- Industrial appliances

**Weblinks**

[pdf-datasheet](#), [html-datasheet](#), [General Product Information](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [REACH](#), [Distributor Stock-Check](#), [Detailed request for product](#), [Product News](#)

**Technical Data**

**General data**

Rated Voltage DC	IEC 180 V UL/CSA 120/180 V
Rated current	0.5 - 50 A , see approbations
Conditional short circuit capacity IEC 60934	Icn: DC 180 V: 4.5 kA (no fuse)
Conditional short circuit capacity UL 1077	Icn: DC 120 V; DF/DG: 0.5A-40A: 10 kA (no fuse) Icn: DC 120 V; DH: 0.5A-40A: 5 kA (no fuse) Icn: DC 180 V; 0.5A-50A: 2 kA (no fuse)
Degree of Protection	from front side IP 40 acc. to IEC 60529
Lifetime	1 x Ir 6000switching cycles
Dielectric Strength	50Hz: > 2kV Impulse 1.2/50 µs
Vibration Resistance	± 0.75 mm @ 5 - 60 Hz acc. to IEC 60068-2-6, test Fc 10 G @ 60 - 500 Hz acc. to IEC 60068-2-6, test Fc
Insulation Resistance	250/440 VAC > 5 MΩ
Shock Resistance	30 G / 18ms acc. to IEC 60068-2-27, test Ea
Ambient temperature	-10°C to 55°C
Weight	100 - 130g

**Tripping Type**

Positively trip free

**Actuation type**

Manual ON/OFF

**Permissible wire cross section**

1.5 - 25 mm<sup>2</sup> / 16 - 4 AWG

**Switched neutral**

**Rated Voltage**

AC 277 V

**Rated current**

AC/DC 65 A

**Function**

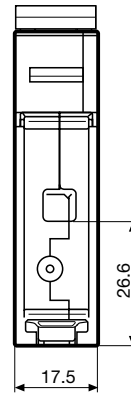
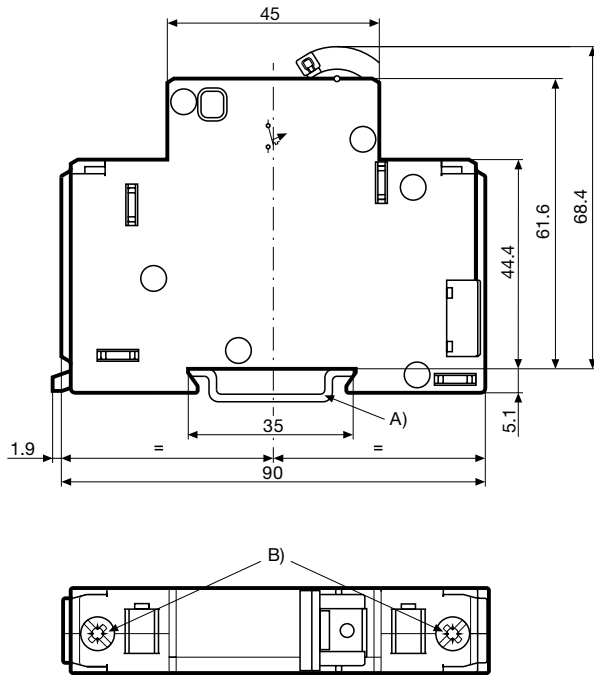
The switched neutral closes with manual closure of the poles and opens automatically with thermal magnetic tripping of the poles.

**Add-on modules**

**Add-on modules**

Technical data for the additional module see separate data sheet

**Dimension**  
AS168X 1 pole

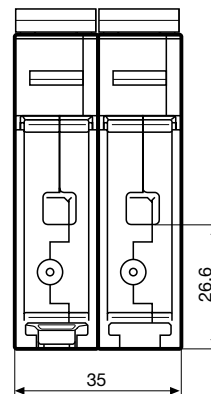
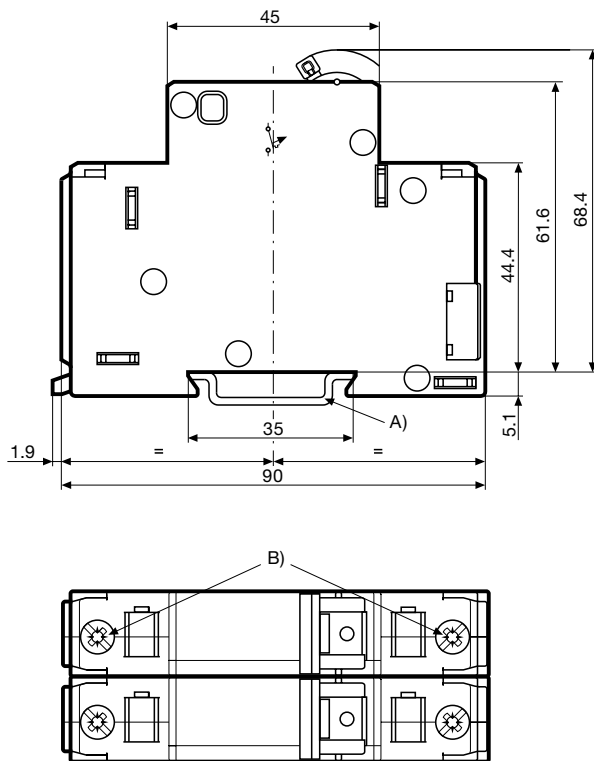


A) 35 mm DIN rail EN 50022

B) Max. torque

Wire crosssection	Max. torque
1.5 ... 10 mm <sup>2</sup>	2.5 Nm
16 ... 25 mm <sup>2</sup>	3.1 Nm
AWG #16 ... 8	20 ... 22 lb-in
AWG #6 ... 4	26 ... 28 lb-in

AS168X 1 pole and switched neutral pole



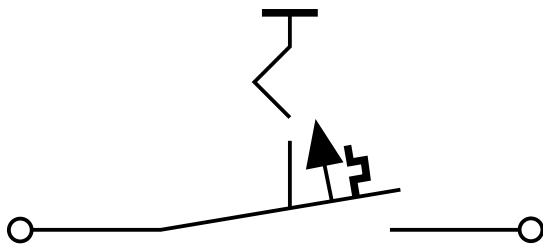
A) 35 mm DIN rail EN 50022

B) Max. torque

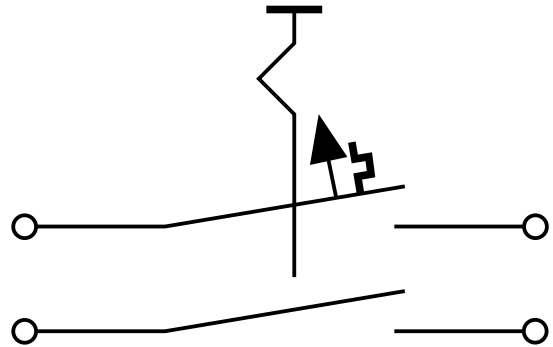
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Diagrams

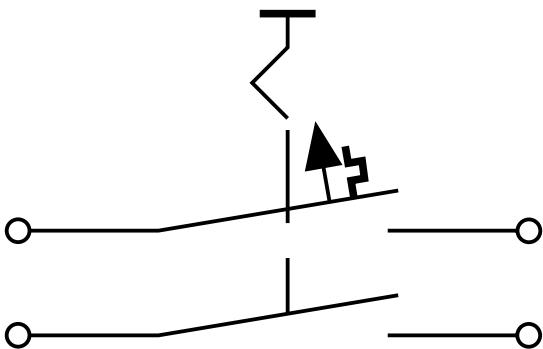
AS168X-CB1...



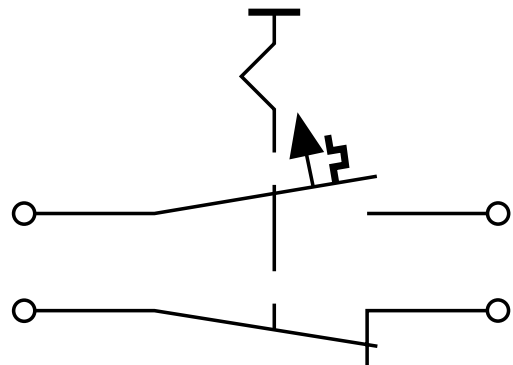
AS168X-CB1...N



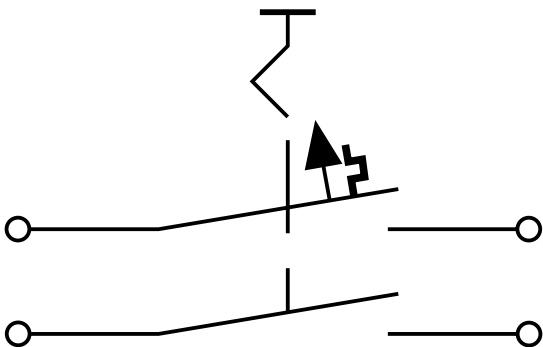
AS168X-CB1... / AS168X-ACBH1



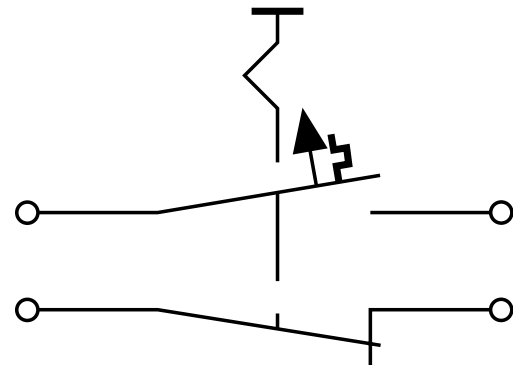
AS168X-CB1... / AS168X-ACBH2



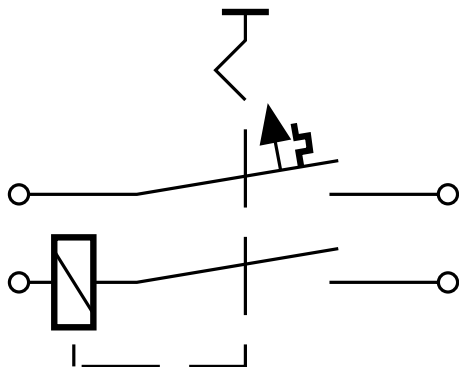
AS168X-CB1... / AS168X-ACBS1







AS168X-CB1... / AS168X-ACBS2



AS168X-CB1... / AS168X-ACBA



Symbol	Standard	Rated current	Rated voltage DC	Conditional short circuit capacity Icn
	UL 508 CSA C22.2 no. 14	-	-	-
	UL 1077	0.5 - 40 A	120 V	10 kA
	CSA C22.2 no. 235	0.5 - 50 A	180 V	2 kA
	EN 60934	0.5 - 50 A	180 V	4.5 kV
	GB 17701	nur Art.-Nr. 4420.0386 (30 A) 4420.0526 (40 A) 4420.0897 (50 A)	120 V	3 kA

### Effect of ambient temperature

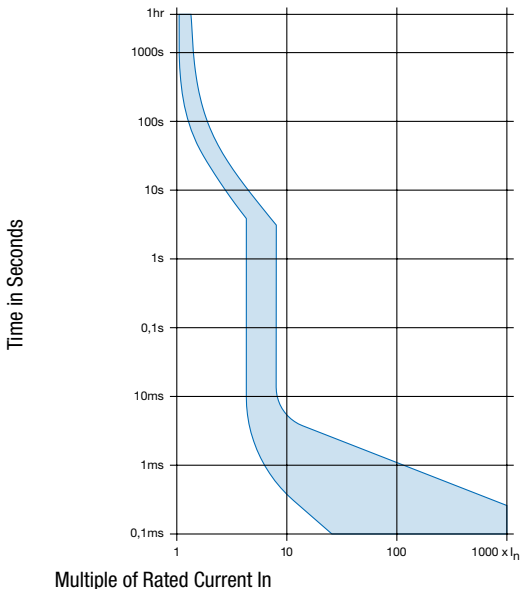
AC-breaker are calibrated for an ambient temperature of +40°C, DC-breakers for +23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor from the table below:

Ambient temperature [°C]	Correction factor AC version	Correction factor DC version
-20	0.78	0.80
-5	0.82	0.87
0	0.83	0.90
+10	0.87	0.95
+23	0.91	1.00
+30	0.95	1.05
+40	1.00	1.10
+50	1.05	1.20
+60	1.11	1.30

Example DC version: Rated current = 10 A; Environmental temperature = 50 °C; --> Correction factor = 1.2; Resulting current = 12 A

### Time-Current-Curves

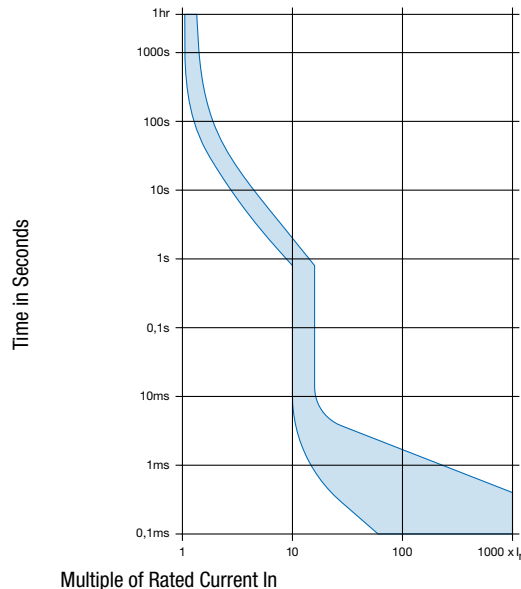
Version DF / Magnetic 4.5-8 x I<sub>n</sub>



Multiple of Rated Current I<sub>n</sub>

Reference Temperature +23°

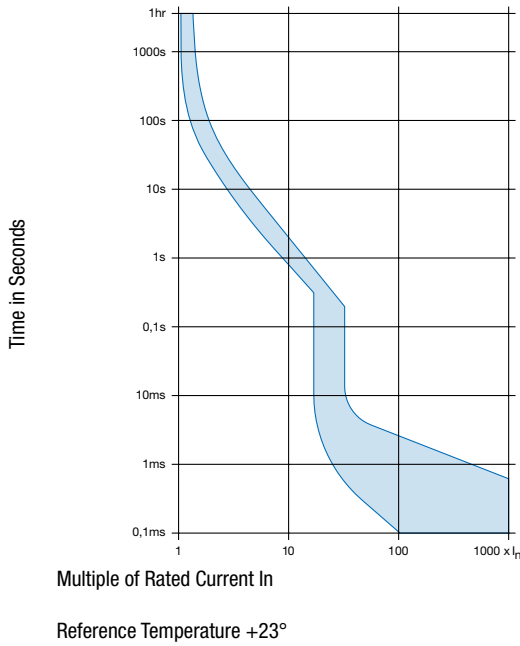
Version DG / Magnetic 9-16 x I<sub>n</sub>



Multiple of Rated Current I<sub>n</sub>

Reference Temperature +23°

Version DH / Magnetic 18-32 xI<sub>n</sub>



### Config. Code

AS168X-CB 1 DG 200 N

The characters are placeholders for the correspondingly keys of selections from the key tables.

AS168X-CB **1** DG 200 N = Number of Poles

Number of Poles	Configuration key
1-pole	1

AS168X-CB 1 **DG** 200 N = Tripping characteristics

Tripping characteristics	Configuration key
1.05-1.35xI <sub>n</sub> / 4.5-8xI <sub>n</sub> / 0.5-50 A	DF
1.05-1.35xI <sub>n</sub> / 9-16xI <sub>n</sub> / 0.5-50 A	DG
1.05-1.35xI <sub>n</sub> / 18-32xI <sub>n</sub> / 6.0-50 A	DH

AS168X-CB 1 DG **200** N = Rated current

Rated current	Configuration key
0.05 A	005
1.0 A	010
1.5 A	015
2.0 A	020
3.0 A	030
4.0 A	040
5.0 A	050
6.0 A	060
7.0 A	070

Other rated currents on request

Rated current	Configuration key
8.0 A	080
9.0 A	090
10.0 A	100
12.0 A	120
15.0 A	150
16.0 A	160
18.0 A	180
20.0 A	200
23.0 A	230
25.0 A	250
27.0 A	270
30.0 A	300
32.0 A	320
35.0 A	350
40.0 A	400
45.0 A	450
50.0 A	500

Other rated currents on request

AS168X-CB 1 DG 200 **N** = Switched neutral

Switched neutral	Configuration key
Switched neutral pole	N

## Variants

Tripping characteristics	Rated current	Switched neutral	Config. Code	Order Number
1.05-1.35xln / 9-16xln / 0.5-50 A	0.05 A		AS168X-CB1DG005	4420.0460
1.05-1.35xln / 9-16xln / 0.5-50 A	1.0 A		AS168X-CB1DG010	4420.0625
1.05-1.35xln / 9-16xln / 0.5-50 A	5.0 A		AS168X-CB1DG050	4420.0354
1.05-1.35xln / 9-16xln / 0.5-50 A	10.0 A		AS168X-CB1DG100	4420.0324
1.05-1.35xln / 9-16xln / 0.5-50 A	20.0 A		AS168X-CB1DG200	4420.0332
1.05-1.35xln / 9-16xln / 0.5-50 A	20.0 A	Switched neutral pole	AS168X-CB1DG200N	4420.0823
1.05-1.35xln / 9-16xln / 0.5-50 A	40.0 A		AS168X-CB1DG400	4420.0530

Availability for all products can be searched real-time:<http://www.schurter.com/Stock-Check/Stock-Check-SCHURTER>

**Packaging Unit** 1 Pcs