

Circuit Breaker for Equipment thermal-magnetic, 2 poles



Approvals and Compliances

Description

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

Applications

- Industrial appliances

Weblinks

[pdf datasheet](#), [html-datasheet](#), [General Product Information](#), [Distributor-Stock-Check](#), [Detailed request for product](#), [Product News](#)

Technical Data

General data

Rated Voltage DC	IEC 240 V UL/CSA 240/360 V
Rated current	0.5 - 50 A , see approbations
Conditional short circuit capacity IEC 60934	Icn: DC 240 V: 4.5 kA (no fuse)
Conditional short circuit capacity UL 1077	Icn: DC 240 V; DF/DG: 0.5A-40A: 10 kA (no fuse) Icn: DC 240 V; DH: 0.5A-40A: 5 kA (no fuse) Icn: DC 360 V; 0.5A-50A: 2 kA (no fuse)
Degree of Protection	from front side IP 40 acc. to IEC 60529
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
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Approvals and Compliances

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [Details about Approvals](#)

Approvals


The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products.

Approval Reference Type: AS168X

Approval Logo	Certificates	Certification Body	Description
	<a href="#">VDE Approvals</a>	VDE	VDE Certificate Number:
	<a href="#">UL Approvals</a>	UL	UL File Number:
	<a href="#">UL Approvals</a>	UL	UL File Number:
	<a href="#">CQC Approvals</a>	CQC	CCC File Number:




## Application standards

Application standards where the product can be used

Organization	Design	Standard	Description
	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technology equipment.

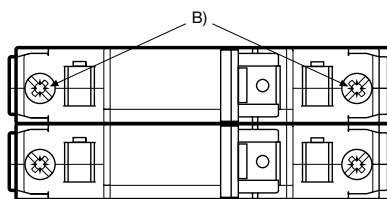
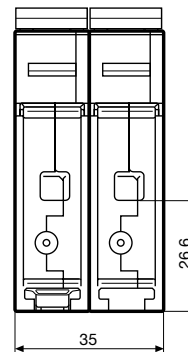
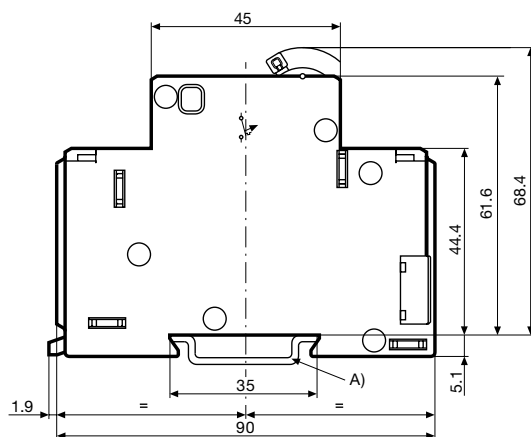
## Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
	China RoHS	SCHURTER AG	The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.
	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

## Dimension [mm]

AS168X 2 pole

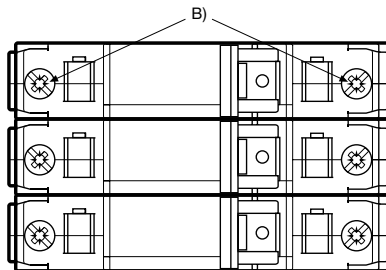
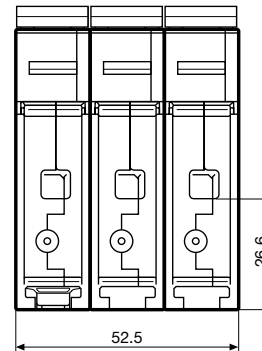
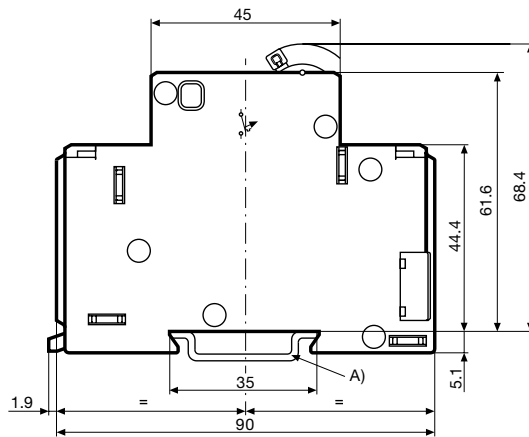


A) 35 mm DIN rail EN 50022

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 2 pole and switched neutral pole



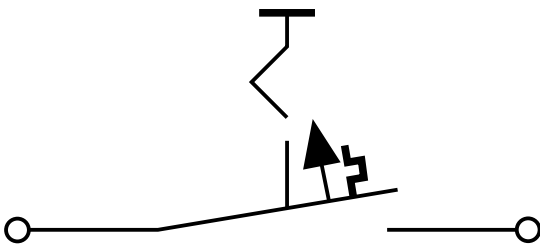
A) 35 mm DIN rail EN 50022

B) Max. torque

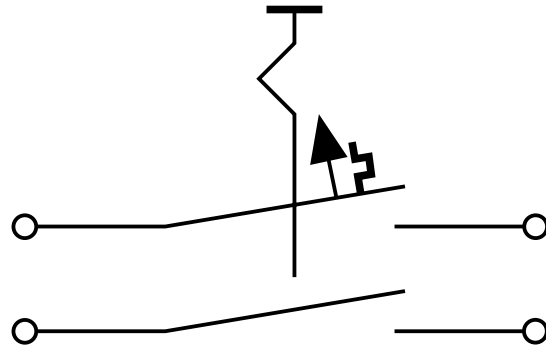
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## Diagrams

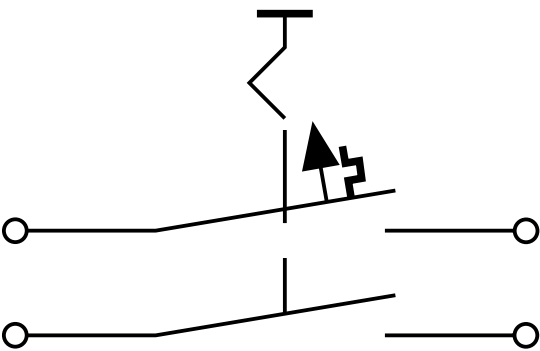
AS168X-CB1...



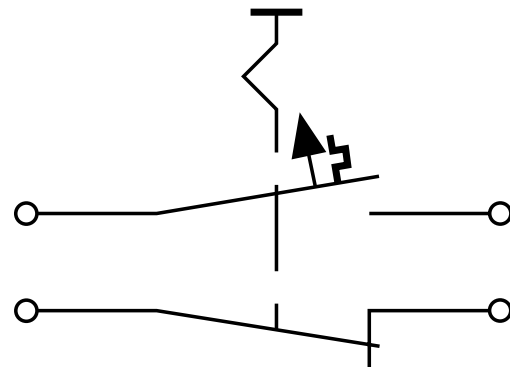
AS168X-CB1...N



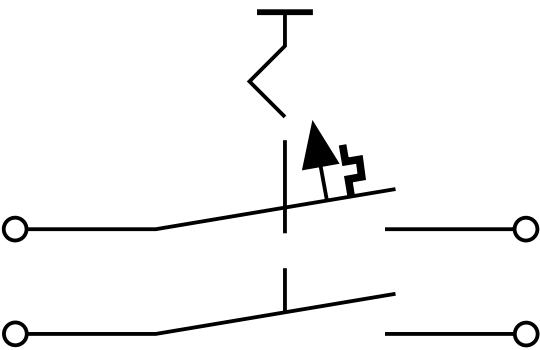
AS168X-CB1... / AS168X-ACBH1



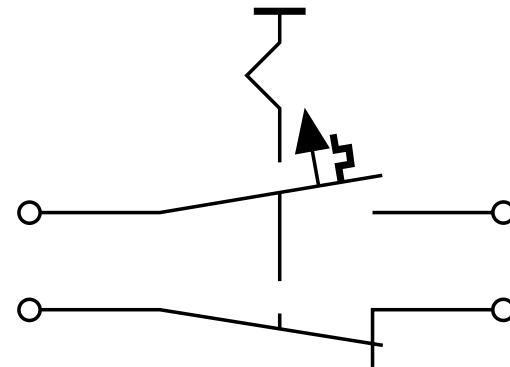
AS168X-CB1... / AS168X-ACBH2



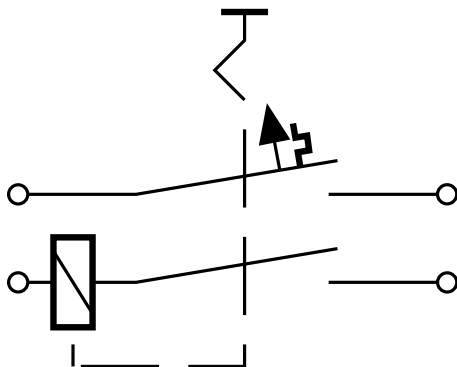
AS168X-CB1... / AS168X-ACBS1







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	240 V	10 kA
	CSA C22.2 no. 235	0.5 - 50 A	360 V	2 kA
	EN 60934	0.5 - 50 A	240 V	4.5 kA
	GB 17701	nur Art.-Nr. 4420.0386 (30 A) 4420.0367 (40 A)	240 V	3 kA

### Effect of ambient temperature

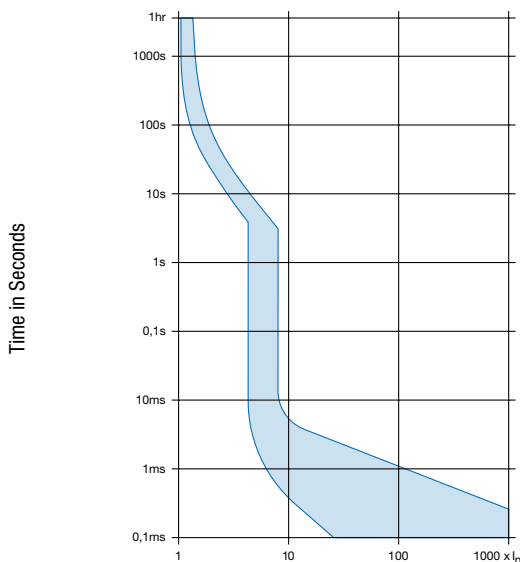
AC-breaker are calibrated for an ambient temperature of +40°C, DC-breakers for +23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor from the table below:

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

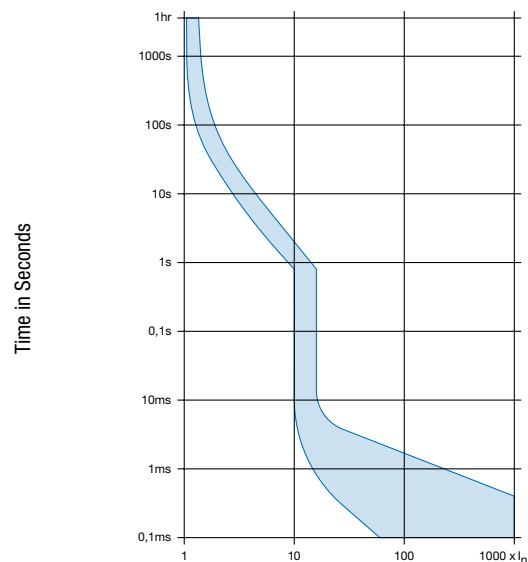
Version DF / Magnetic 4.5-8 xI<sub>n</sub>



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

Reference Temperature +23°

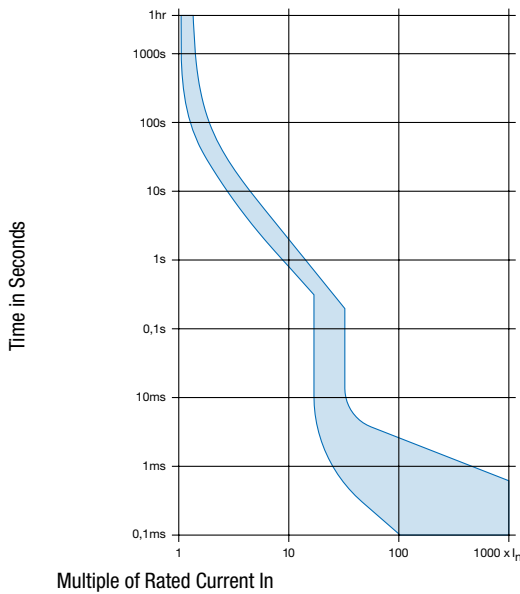
Version DG / Magnetic 9-16 xI<sub>n</sub>



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

Reference Temperature +23°

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



Reference Temperature +23°

## 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
2-pole	2

### 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

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
1.05-1.35xIn / 9-16xIn / 0.5-50 A	1.0 A		AS168X-CB2DG010	4420.0356
1.05-1.35xIn / 9-16xIn / 0.5-50 A	2.0 A		AS168X-CB2DG020	4420.0519
1.05-1.35xIn / 9-16xIn / 0.5-50 A	5.0 A		AS168X-CB2DG050	4420.0357
1.05-1.35xIn / 9-16xIn / 0.5-50 A	6.0 A		AS168X-CB2DG060	4420.0459
1.05-1.35xIn / 9-16xIn / 0.5-50 A	10.0 A		AS168X-CB2DG100	4420.0358
1.05-1.35xIn / 9-16xIn / 0.5-50 A	15.0 A		AS168X-CB2DG150	4420.0359
1.05-1.35xIn / 9-16xIn / 0.5-50 A	20.0 A		AS168X-CB2DG200	4420.0360
1.05-1.35xIn / 9-16xIn / 0.5-50 A	25.0 A		AS168X-CB2DG250	4420.0280
1.05-1.35xIn / 9-16xIn / 0.5-50 A	30.0 A		AS168X-CB2DG300	4420.0361
1.05-1.35xIn / 9-16xIn / 0.5-50 A	50.0 A		AS168X-CB2DG500	4420.0362
1.05-1.35xIn / 18-32xIn / 6.0-50 A	15.0 A		AS168X-CB2DH150	4420.0394
1.05-1.35xIn / 18-32xIn / 6.0-50 A	30.0 A		AS168X-CB2DH300	4420.0386

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