

Circuit Breaker for Equipment thermal-magnetic, 3 poles



See below:
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

References

Last order possibility: 31.08.2018
 Last delivery date: 30.09.2018

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 360 V UL/CSA 360 V
Rated current	0.5 - 50 A , see approbations
Conditional short circuit capacity IEC 60934	Icn: DC 360 V: 4.5 kA (no fuse)
Conditional short circuit capacity UL 1077	Icn: DC 360 V: 10 kA (no fuse)
Degree of Protection	from front side IP 40 acc. to IEC 60529
Dielectric Strength	50Hz: > 2 kV 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	250/440VAC > 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
Manual ON/OFF
1.5 - 25 mm ² / 16 - 4 AWG
Switched neutral
AC 277 V
AC/DC 65 A
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
	VDE Approvals	VDE	VDE Certificate Number: 40005743
	UL Approvals	UL	UL File Number: E216629 / E71572
	UL Approvals	UL	UL File Number: E216629 / E71572

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
 IEC	Designed according to	IEC 60934	Circuit-breakers for equipment (CBE)
 UL	Designed according to	UL 1077	Standard for Supplementary Protectors for Use in Electrical Equipment
 CSA Group	Designed according to	CSA C22.2	Supplementary Protectors

Application standards

Application standards where the product can be used

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

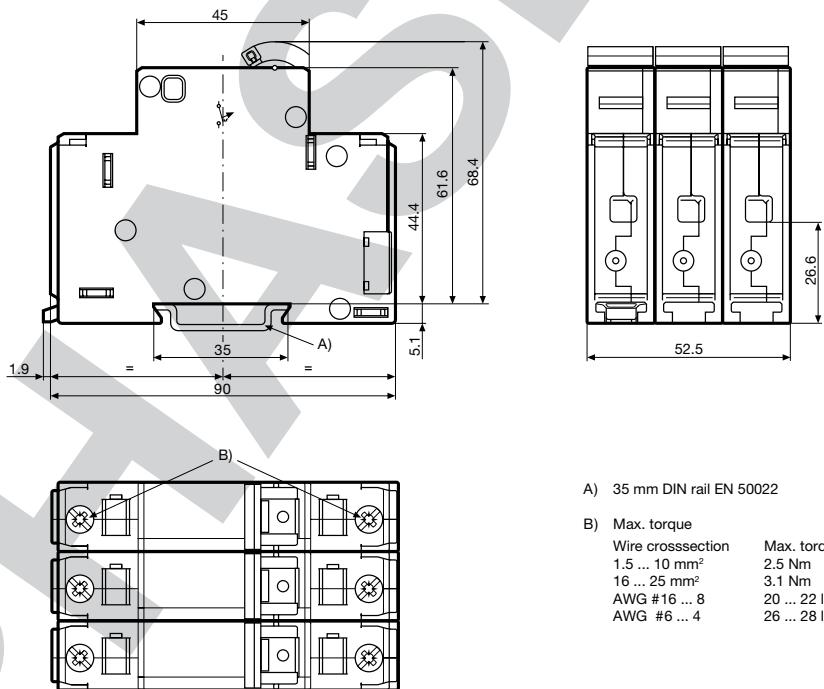
Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
 CE	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
 RoHS	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
 China RoHS	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	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 3 pole

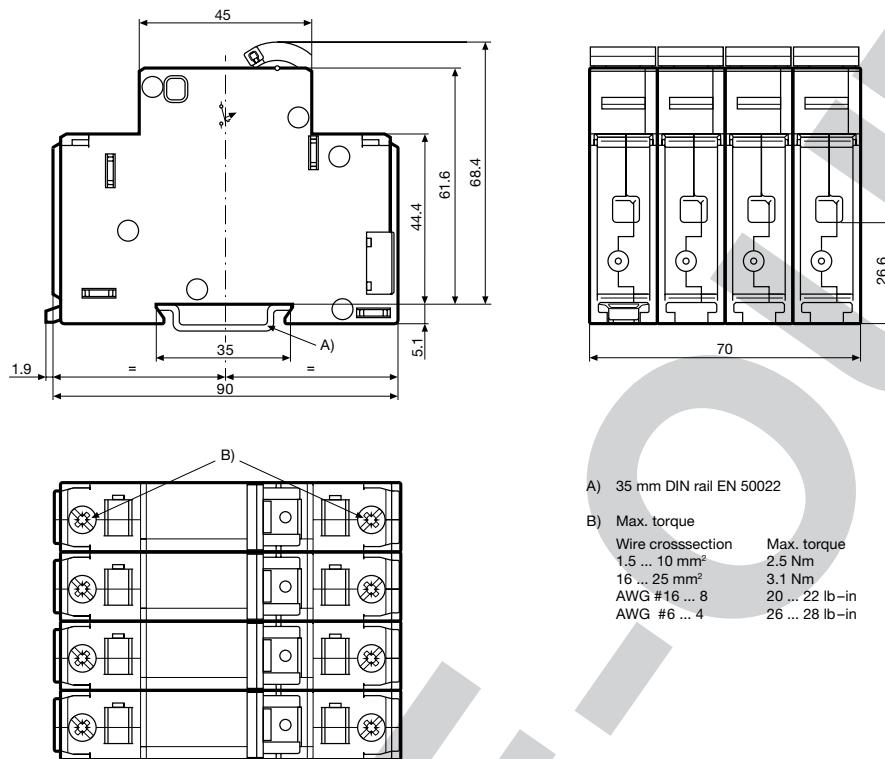


A) 35 mm DIN rail EN 50022

B) Max. torque

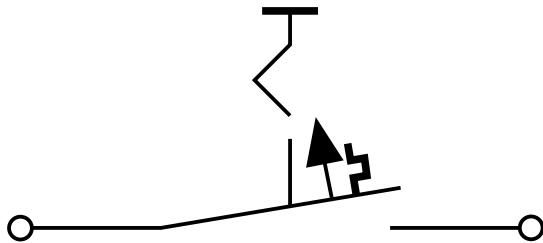
Wire crosssection	Max. torque
1.5 ... 10 mm ²	2.5 Nm
16 ... 25 mm ²	3.1 Nm
AWG #16 ... 8	20 ... 22 lb-in
AWG #6 ... 4	26 ... 28 lb-in

AS168X 3 pole and switched neutral pole

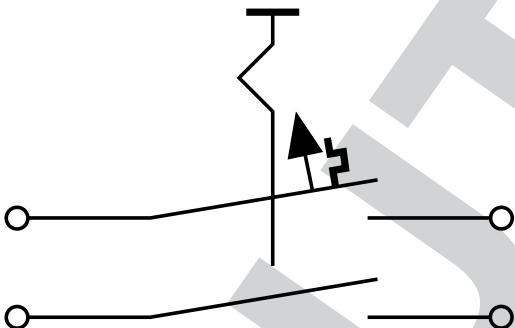


Diagrams

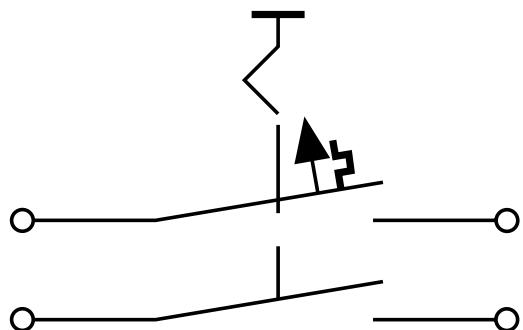
AS168X-CB1...



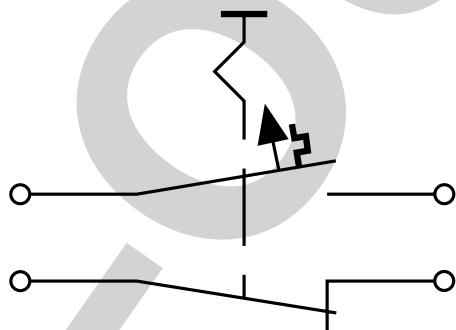
AS168X-CB1...N



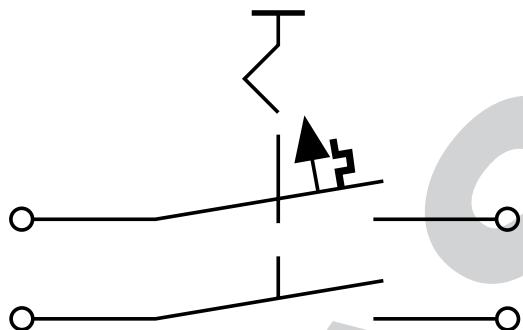
AS168X-CB1... / AS168X-ACBH1



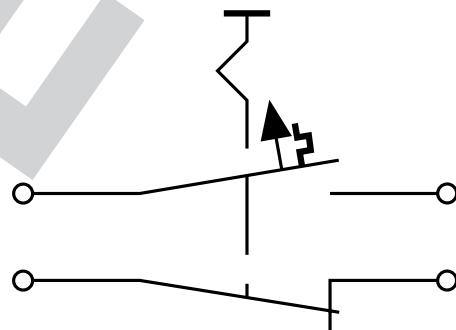
AS168X-CB1... / AS168X-ACBH2



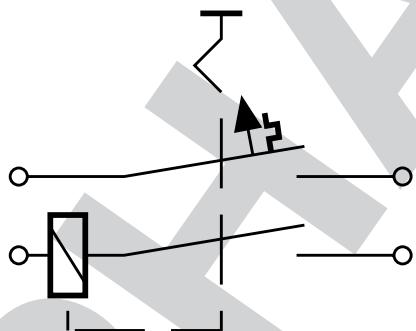
AS168X-CB1... / AS168X-ACBS1



AS168X-CB1... / AS168X-ACBS2



AS168X-CB1... / AS168X-ACBA



Symbol	Standard	Rated current	Rated voltage DC	Conditional short circuit capacity I_{cn}
	UL 508 CSA C22.2 no. 14	-	-	-
	UL 1077 CSA C22.2 no. 235	0.5 - 40 A	360 V	10 kA
	EN 60934	0.5 - 50 A	360 V	4.5 kA
	GB 17701	-	-	-

Effect of ambient temperature

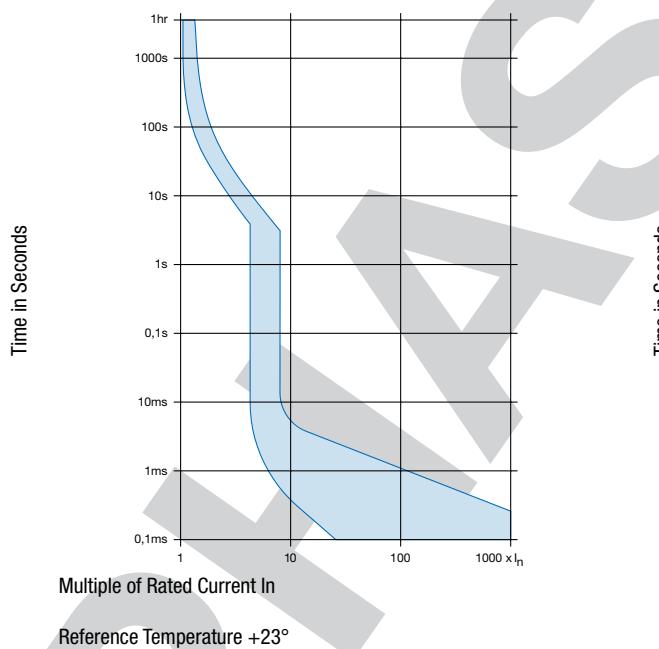
AC-breaker are calibrated for an ambient temperature of +40°C, DC-breakers for +23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor from the table below:

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

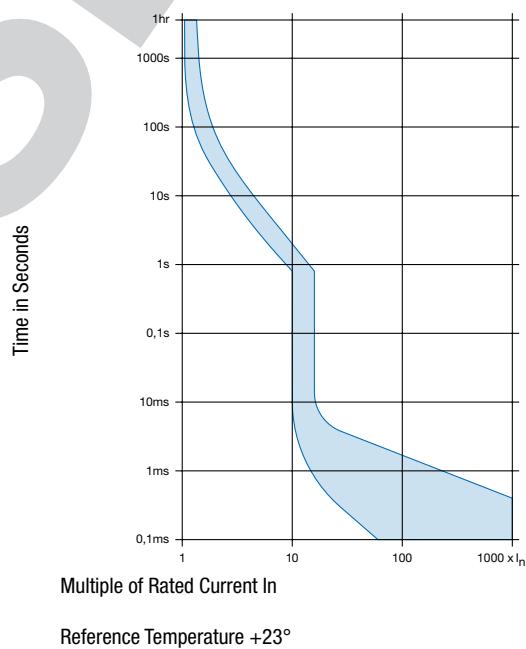
Example DC version: Rated current = 10 A; Environmental temperature = 50 °C; --> Correction factor = 1.2; Resulting current = 12 A

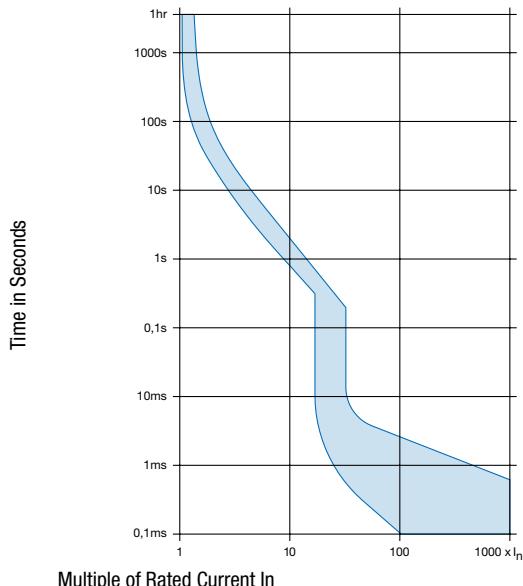
Time-Current-Curves

Version DF / Magnetic 4.5-8 $x I_n$



Version DG / Magnetic 9-16 $x I_n$



Version DH / Magnetic 18-32 xI_n

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

3-pole

Configuration key

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

AS168X-CB 1 DG 200 N = Tripping characteristics

Tripping characteristics

1.05-1.35xI_n / 4.5-8xI_n / 0.5-50 A

Configuration key

DF	
1.05-1.35xI _n / 9-16xI _n / 0.5-50 A	DG
1.05-1.35xI _n / 18-32xI _n / 6.0-50 A	DH

AS168X-CB 1 DG 200 N = Rated current

Rated current

Configuration key

0.05 A

Other rated currents on request

1.0 A

AS168X-CB 1 DG 200 N = Switched neutral

1.5 A

005	
010	
015	
020	
030	
040	
050	
060	
070	

2.0 A

Switched neutral

3.0 A

Configuration key

4.0 A

Switched neutral pole

5.0 A

N

6.0 A

Other rated currents on request

Variants

Tripping characteristics	Rated current	Switched neutral	Config. Code	Order Number
1.05-1.35xIn / 9-16xIn / 0.5-50 A	2.0 A		AS168X-CB3DG020	4420.0607
1.05-1.35xIn / 9-16xIn / 0.5-50 A	20.0 A		AS168X-CB3DG200	4420.0940

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