Circuit Breaker for Equipment thermal-magnetic, 3 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

References

Last order possibility: 31.08.2018 Last delivery date: 30.09.2018

Weblinks

Tripping Type

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	50 Hz: > 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	250/440 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

rripping type	
3	Positively trip free
Actuation Type	Manual ON/OFF
Permissible wire cross section	1.5 - 25 mm² / 16 - 4 AWG
Switched neutral	
Rated Voltage	AC 277 V
Rated current	AC/DC 65 A
Function	The switched neutral closes with ma- nual 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
7	

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
©VE .	VDE Approvals	VDE	VDE Certificate Number: 40005743
c UL us	UL Approvals	UL	UL File Number: E216629 / E71572
c FL us	UL Approvals	UL	UL File Number: E216629 / E71572

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
<u>IEC</u>	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
<u>IEC</u>	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technologyequipment.

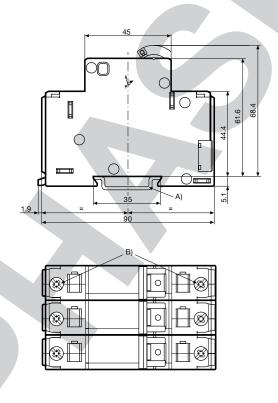
Compliances

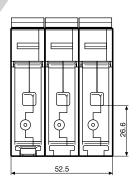
The product complies with following Guide Lines

The product complies w	nti i lollowii ig 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
50	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, Évaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

Dimension [mm]

AS168X 3 pole

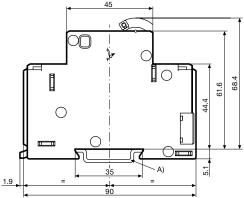


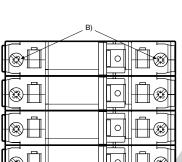


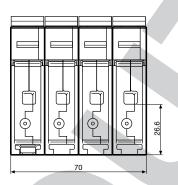
- A) 35 mm DIN rail EN 50022
- B) Max. torque

 Wire crosssection
 1.5 ... 10 mm²
 16 ... 25 mm²
 AWG #16 ... 8
 20 ... 22 lb-in
 AWG #6 ... 4
 26 ... 28 lb-in

AS168X 3 pole and switched neutral pole







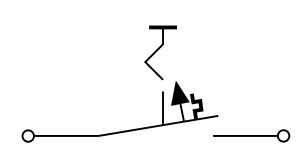
A) 35 mm DIN rail EN 50022

B) Max. torque

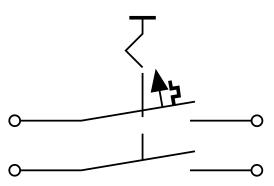
Wire crosssection	Max. torque
1.5 10 mm ²	2.5 Nm
16 25 mm ²	3.1 Nm
AWG #16 8	20 22 lb-in
AWG #6 4	26 28 lb-in

Diagrams

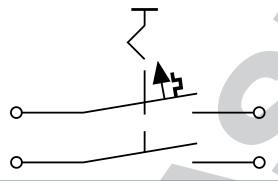
AS168X-CB1...



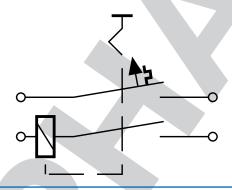
AS168X-CB1... / AS168X-ACBH1



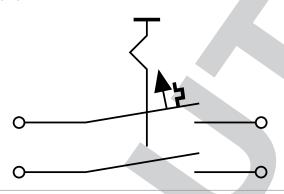
AS168X-CB1... / AS168X-ACBS1



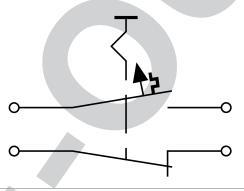
AS168X-CB1... / AS168X-ACBA



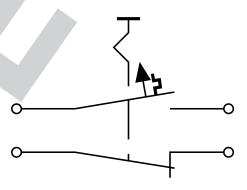
AS168X-CB1...N



AS168X-CB1... / AS168X-ACBH2



AS168X-CB1... / AS168X-ACBS2



Symbol	Standard	Rated current	Rated voltage DC	Conditional short circuit capacity Icn
c UL us	UL 508 CSA C22.2 no. 14	-	-	-
c Fli us	UL 1077	0.5 - 40 A	360 V	10 kA
	CSA C22.2 no. 235	-	-	-
₽ P	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:

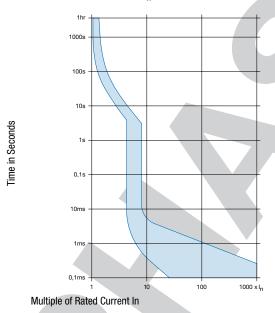
Ambient temperature [°C]	Correction factor AC version	Correction factor DC version
-20	0.78	0.80
-5	0.82	0.87
0	0.83	0.90
+10	0.87	0.95
+23	0.91	1.00
+30	0.95	1.05
+40	1.00	1.10
+50	1.05	1.20
+60	1.11	1.30

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

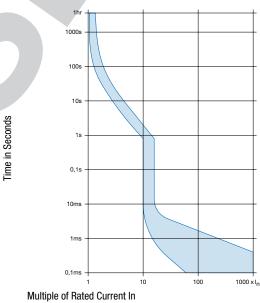
Time-Current-Curves

Version DF / Magnetic 4.5-8 xI_n

Reference Temperature +23°

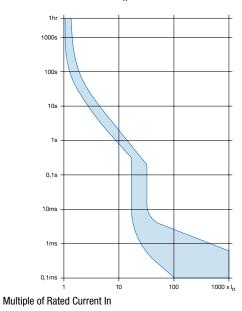


Version DG / Magnetic 9-16 xl_n



Reference Temperature +23°

Version DH / Magnetic 18-32 xl_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	Configuration key
3-pole	3

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

Tripping characteristics	Configuration key
1.05-1.35xln / 4.5-8xln / 0.5-50 A	DF
1.05-1.35xln / 9-16xln / 0.5-50 A	DG
1.05-1.35xln / 18-32xln / 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

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	2.0 A		AS168X-CB3DG020	4420.0607
1.05-1.35xln / 9-16xln / 0.5-50 A	20.0 A		AS168X-CB3DG200	4420.0940

Availability for all products can be searched real-time: https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER

Packaging Unit 1 Pcs

