AS168XAC4

Manual Motor Controller / Circuit Breaker for Equipment thermal-magnetic, 4 poles



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
- UL508, UL1077
- CSA C22.2

Applications
- Industrial appliances

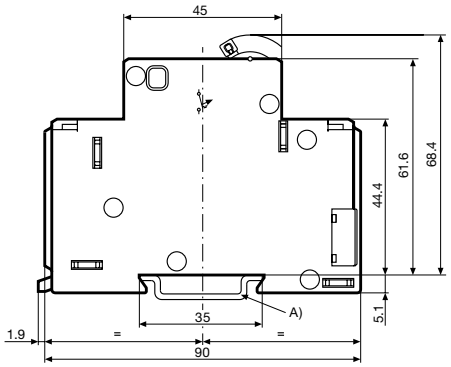
Weblinks
pdf-datasheet, html-datasheet, General Product Information, Approvals, CE declaration of conformity, RoHS, CHINA-RoHS, REACH, Distributor-Stock-Check, Detailed request for product, Product News

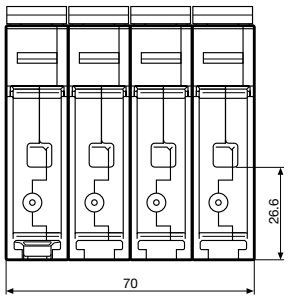
Technical Data

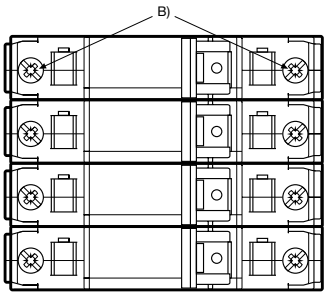
General data	
Rated Voltage AC	IEC : 420 V Y / 240 V; 50/60 Hz UL/CSA : 480 V Y / 277 V; 50/60 Hz
Rated Voltage DC	65 V
Rated current	0.5 - 52 A , see approbations
Conditional short circuit capacity IEC 60934	Icn: AC 420 V Y/240 V / DC 65 V: 5 kA (no fuse)
Conditional short circuit capacity UL 1077	Inc: AC 480 V Y/277 V: 10 kA (with fuse class H/J, 4x rated current (min. 15 A)) Icn: AC 480 V Y/277 V: 5 kA (no fuse) Icn: DC 65 V: 2 kA (no fuse)
Conditional short circuit capacity UL 508	Icn: AC 480 V Y/277 V: 5 kA (no fuse)
Degree of Protection	from front side IP 40 acc. to IEC 60529
Lifetime	1 x Ir 6000 switching cycles
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 / 18 ms acc. to IEC 60068-2-27, test Ea
Ambient temperature	-10 °C to 55 °C
Weight	100 - 130 g

Tripping Type	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 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 4 pole





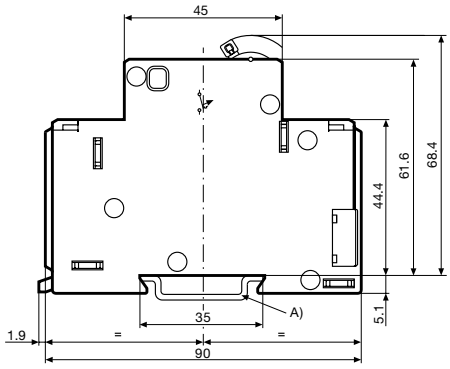


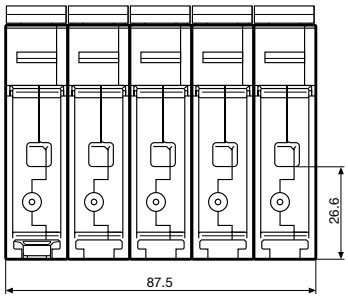
A) 35 mm DIN rail EN 50022

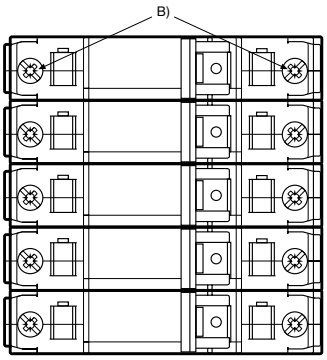
B) Max. torque

Wire crosssection	Max. torque
1.5 ... 10 mm²	2.5 Nm
16 ... 25 mm²	3.1 Nm
AWG #16 ... 8	20 ... 22 lb–in
AWG #6 ... 4	26 ... 28 lb–in

AS168X 4 pole and switched neutral pole







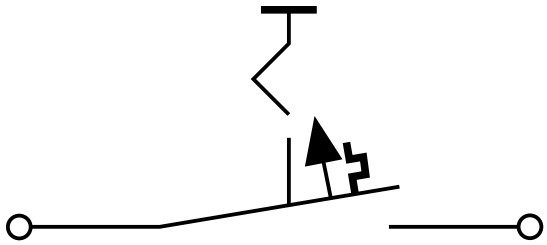
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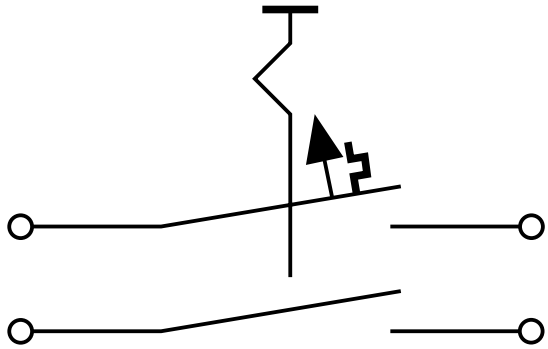
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Diagrams

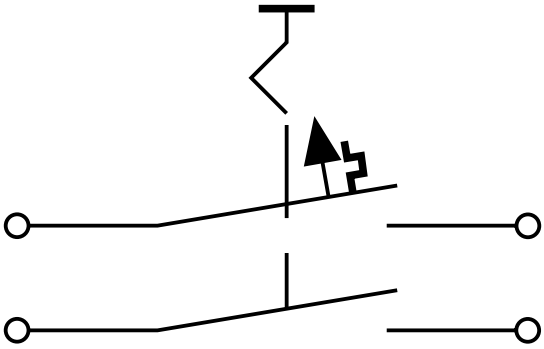
AS168X-CB1...



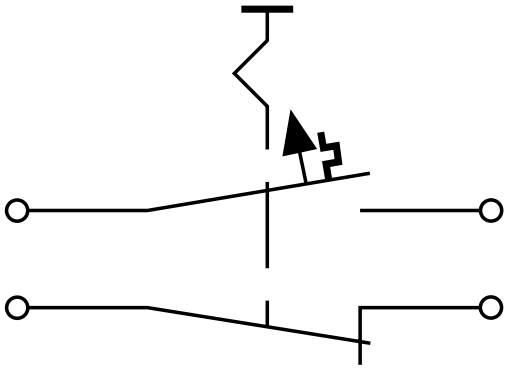
AS168X-CB1...N



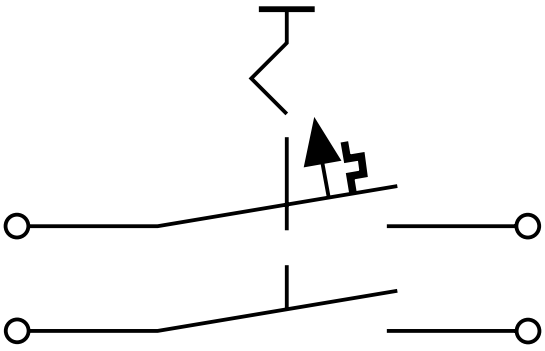
AS168X-CB1... / AS168X-ACBH1



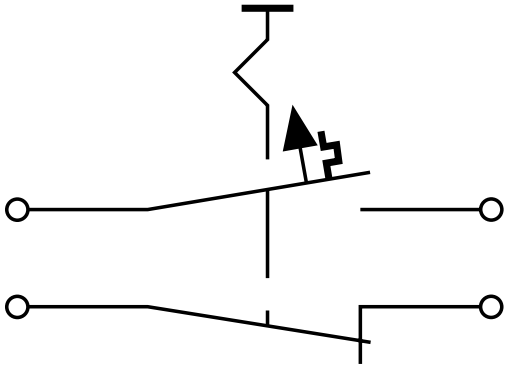
AS168X-CB1... / AS168X-ACBH2



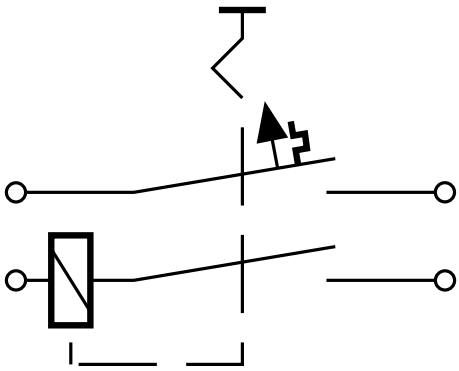
AS168X-CB1... / AS168X-ACBS1



AS168X-CB1... / AS168X-ACBS2



AS168X-CB1... / AS168X-ACBA



Symbol	Standard	Rated current	Rated voltage AC	Conditional short circuit capacity Icn	Rated voltage DC	Conditional short circuit capacity Icn
	UL 508 CSA C22.2 no. 14	05 - 52 A	480Y/277 V	5 kA	-	-
	UL 1077	0.5 - 40 A	480Y/277 V	10 kA	-	-
	CSA C22.2 no. 235	0.5 - 50 A	480Y/277 V	5 kA	-	-
	EN 60934	0.5 - 30 A	240/420 V	4.5 kA	65 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

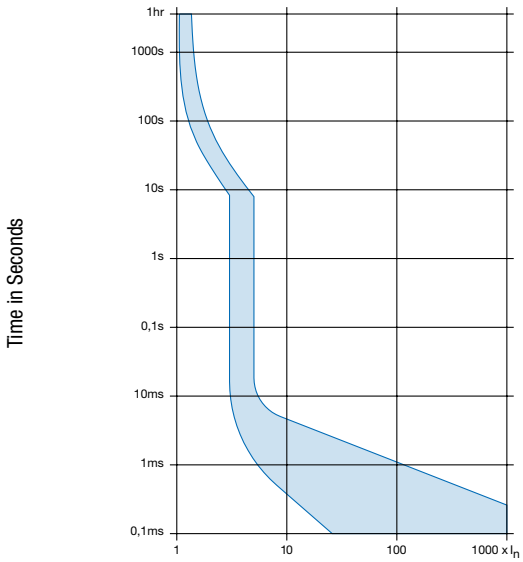
AS168X-CB	Motor Nameplate		Horsepower (FLA & LRC Ratings Apply where no HP Rating is given)							
			Nominal Circuit Voltage, VAC							
			110-120	200	208	220-240	265	**277**	380-415	**440-480**
Rated Current (See Note #1)	FLA Rating	Starting/ LRC Rating						**1 pole**		**2 pole**
0.5A	0.5A	3°								
1A	1A	6°							1/10	
1.5A	1.5A	9°				1/10	1/10	**1/10**	1/6	
2A	2A	12A				1/8	1/6	**1/6**	1/4	
3A	3A	18A	1/10	1/6	1/6	1/4	1/4	**1/3**	1/3	**1/2**
4A	4A	24A	1/8	1/4	1/3	1/3	1/3	**1/3**	1/2	**1**
5A	5A	30A	1/6	1/3	1/3	1/2	1/2	**1/2**	3/4	**1 1/2**
6A	6A	36A	1/4	1/2	1/2	1/2	3/4	**3/4**	1	**2**
7A	7A	42A	1/4	1/2	1/2	3/4	1	**1**	1 1/2	**2**
8A	8A	48A	1/3	3/4	3/4	1	1	**1**	2	**2**
9A	9A	54A	1/3	3/4	1	1	1	**1 1/2**	2	**3**
10A	10A	60A	1/2	1	1	1 1/2	1 1/2	**2**	2	**3**
12A	12A	72A	1/2	1 1/2	1 1/2	2	2	**2**	3	**3**
13A	13A	78A	1/2	1 1/2	1 1/2	2	2	**2**	3	**3**
15A	15A	90A	3/4	2	2	2	3	**3**	3	**5**
16A	16A	96A	1	2	2	2	3	**3**	3	**5**
18A	18A	108A	1	2	2	3	3	**3**	5	**5**
20A	20A	120A	1 1/2	3	3	3	3	**3**	5	**5**
23A	23A	138A	1 1/2	3	3	3	3	**3**	5	**7 1/2**
25A	25A	150A	2	3	3	3	5	**5**	5	**7 1/2**
27A	27A	162A	2	3	3	3	5	**5**	7 1/2	**10**
30A	30A	180A	2	3	3	5	5	**5**	7 1/2	**10**

AS168X-CB	Motor Nameplate		Horsepower (FLA & LRC Ratings Apply where no HP Rating is given)					
			Nominal Circuit Voltage, VAC					
			110-120	200	208	220-240	380-415	**440-480**
Rated Current (See Note #1)	FLA Rating	Starting/ LRC Rating						**3 pole**
0.5A	0.5A							
1A	1A							
1.5A	1.5A	10A					1/2	**1/2**
2A	2A	12.5A					3/4	**3/4**
3A	3A	20A		1/2	1/2	1/2	1	**1 1/2**
4A	4A	25A		3/4	3/4	3/4	1 1/2	**2**
5A	5A	32A	1/2	1	1	1	2	**3**
6A	6A	32A	1/2	1	1	1/2	2	**3**
7A	7A	32A	3/4	1/2	1/2	2	3	**3**
8A	8A	46A	3/4	2	2	2	3	**5**
9A	9A	46A	1	2	2	2	3	**5**
10A	10A	46A	1	2	2	3	5	**5**
12A	12A	63.5A	1 1/2	3	3	3	5	**7 1/2**
13A	13A	63.5A	1 1/2	3	3	3	5	**7 1/2**
15A	15A	81A	2	3	3	3	7 1/2	**10**
16A	16A	81A	2	3	3	5	7 1/2	**10**
18A	18A	81A	2	5	5	5	10	**10**
20A	20A	81A	3	5	5	5	10	**10**
23A	23A	116A	3	5	5	7 1/2	10	**15**
25A	25A	116A	3	5	7 1/2	7 1/2	10	**15**
27A	27A	145A	3	7 1/2	7 1/2	7 1/2	15	**20**
30A	30A	145A	3	7 1/2	7 1/2	10	15	**20**

Note #1: For AC motor circuit nameplate FLA loads, AC general-use loades, AC resistance loads

Time-Current-Curves

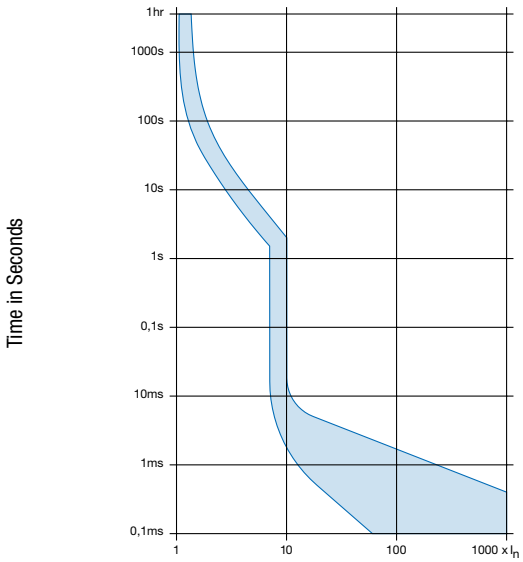
Version F / Magnetic 3-5 xI_n



Multiple of Rated Current In

Reference Temperature +23°

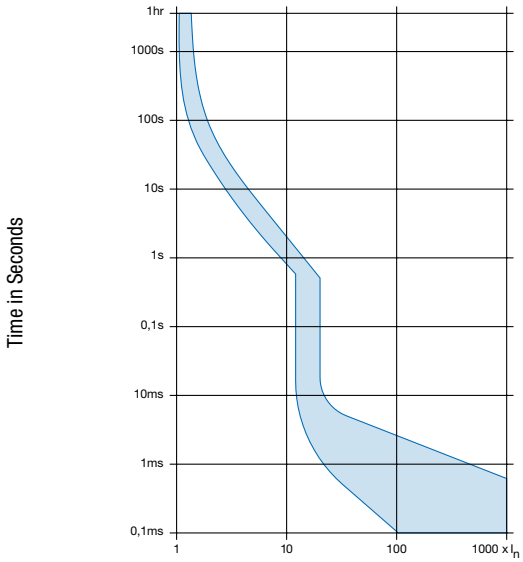
Version G / Magnetic 6-10 xI_n



Multiple of Rated Current In

Reference Temperature +23°

Version H / Magnetic 12-20 xI_n



Multiple of Rated Current In

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
4-pole	4

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

Tripping characteristics	Configuration key
1.0-1.25xIn / 3-5xIn / 0.5-52 A	F
1.0-1.25xIn / 6-10xIn / 0.5-52 A	G
1.0-1.25xIn / 12-20xIn / 0.5-52 A	H

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
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
52.0 A	520

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
1.0-1.25xIn / 6-10xIn / 0.5-52 A	50.0 A		AS168X-CB4G500	4420.0389

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

Packaging Unit 1 Pcs

13.10.2016

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