

PRODUCT-DETAILS

AFS400-30-12-69

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General Information

Extended Product Type	AFS400-30-12-69
Product ID	1SFL577081R6912
EAN	7320500540923
Catalog Description	AFS400-30-12-69

Long Description

The AFS400-30-12-69 is a 3 pole - 1000 V IEC or 600 V UL contactor with pre-mounted 1 left (1 N.O + 1 N.C.) and fixed 1 right (1 N.C.) side mounted auxiliary contact blocks with Main Circuit Bars connections, controlling motors up to 200 kW / 400 V AC (AC-3) or 350 hp / 480 V UL and switching power circuits up to 600 A (AC-1) or 550 A UL general use. AFS contactors can be easily integrated in machine manufacturer's systems complying with main standards EN ISO 13849 and EN 62061 - guaranteeing the safe use of your machinery and equipment. An easily identifiable yellow low energy auxiliary contact block ensures the status feedback circuits required in machine safety applications. Thanks to the AF technology, the contactor has a wide control voltage range (48-130 V 50/60 Hz and DC), managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks. Furthermore, surge protection is built-in, offering a compact solution. AF contactors have a block type design, can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

Data Sheet, Technical Information	1SBC100208C02__
Instructions and Manuals	1SFC380023-en
CAD Dimensional Drawing	2CDC001079B0201

## Dimensions

Product Net Width	186 mm
Product Net Depth / Length	216 mm
Product Net Height	278 mm
Product Net Weight	10.6 kg

## Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	1
Number of Auxiliary Contacts NC	2
Rated Operational Voltage	Main Circuit 1000 V
Rated Frequency (f)	Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ )	acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 600 A
Rated Operational Current AC-1 ( $I_e$ )	(1000 V) 40 °C 600 A (1000 V) 55 °C 500 A (1000 V) 70 °C 400 A (690 V) 40 °C 600 A (690 V) 55 °C 500 A (690 V) 70 °C 400 A
Rated Operational Current AC-3 ( $I_e$ )	(415 V) 55 °C 400 A (440 V) 55 °C 400 A (500 V) 55 °C 400 A (690 V) 55 °C 350 A (1000 V) 55 °C 155 A (380 / 400 V) 55 °C 400 A (220 / 230 / 240 V) 55 °C 400
Rated Operational Power AC-3 ( $P_e$ )	(415 V) 220 kW (440 V) 220 kW (500 V) 250 kW (690 V) 315 kW (1000 V) 220 kW (380 / 400 V) 200 kW (220 / 230 / 240 V) 110 kW
Rated Breaking Capacity AC-3	8 x $I_e$ AC-3
Rated Making Capacity AC-3	10 x $I_e$ AC-3
Short-Circuit Protective Devices	gG Type Fuses 630 A
Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 4400 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 840 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 2500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 4600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 3100 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 4000 A cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 3500 A
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-2 / AC-4) 60 cycles per hour (AC-3) 300 cycles per hour

Rated Operational Current DC-1 ( $I_e$ )	(110 V) 1-Pole, 40 °C 600 A (110 V) 2 Poles in Series, 40 °C 600 A (220 V) 3 Poles in Series, 40 °C 600 A (600 V) 3 Poles in Series, 40 °C 600 A
Rated Operational Current DC-3 ( $I_e$ )	(110 V) 1-Pole, 40 °C 600 A (110 V) 2 Poles in Series, 40 °C 600 A (220 V) 3 Poles in Series, 40 °C 600 A (600 V) 3 Poles in Series, 40 °C 600 A
Rated Operational Current DC-5 ( $I_e$ )	(110 V) 1-Pole, 40 °C 600 A (110 V) 2 Poles in Series, 40 °C 600 A (220 V) 3 Poles in Series, 40 °C 600 A (600 V) 3 Poles in Series, 40 °C 600 A
Rated Insulation Voltage ( $U_i$ )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage ( $U_{imp}$ )	Main Circuit 8 kV
Mechanical Durability	5 million
Maximum Mechanical Switching Frequency	300 cycles per hour
Coil Operating Limits	(acc. to IEC 60947-4-1) 0.85 x $U_c$ Min. ... 1.1 x $U_c$ Max. (at $\theta \leq 70$ °C)
Rated Control Circuit Voltage ( $U_c$ )	50 Hz 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage DC 7.5 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 1215 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 1215 V·A Pull-in at Max. Rated Control Circuit Voltage DC 1150 V·A
Operate Time	Between Coil De-energization and NC Contact Closing 45 ... 55 ms Between Coil De-energization and NO Contact Opening 48 ... 58 ms Between Coil Energization and NC Contact Opening 45 ... 115 ms Between Coil Energization and NO Contact Closing 50 ... 120 ms
Connecting Capacity Main Circuit	Bar 47 mm <sup>2</sup> Rigid Al-Cable 240 mm <sup>2</sup> Rigid Cu-Cable 240 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 1x0.75 ... 2.5 mm <sup>2</sup> Solid 2 x 1 ... 4 mm <sup>2</sup> Stranded 2 x 1 ... 4 mm <sup>2</sup>
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00
Terminal Type	Main Circuit: Bars

## Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 550 A
Horsepower Rating UL/CSA	(200 ... 208 V AC) Three Phase 125 hp (220 ... 240 V AC) Three Phase 150 hp (440 ... 480 V AC) Three Phase 350 hp (550 ... 600 V AC) Three Phase 400 hp

## Environmental

Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -25 ... 50 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -40 ... 70 °C Close to Contactor for Storage -40 ... 70 °C
Maximum Operating Altitude Permissible	Without Derating 3000 m
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

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## Circular Value

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ABB EcoSolutions	Yes
Circular Design Principles Recyclability Rate	Design for Closing Resource Loops - Standard EN45555 - 63.1 %
End of Life Instructions	1SFC100112M0001
Group Waste to Landfill Target	Non-hazardous waste is sent to a landfill, where there is no alternative option available within 100km of a facility
Improved Resource Efficiency for Customers	Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line
Sustainable Material Content	Recycled Metal - 37 %

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## Eco Transparency

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Environmental Product Declaration - EPD	1SFC100105D0201
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## Certificates and Declarations

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CB Certificate	SE-82316
CQC Certificate	CQC2007010304256683
Declaration of Conformity - CCC	2020980304001300
Declaration of Conformity - CE	2CMT2018-005695
Declaration of Conformity - UKCA	2CMT2020-006125
EAC Certificate	1SFC101360D1101
SUVA Certificate	2CMT2019-005859
UL Certificate	20121207-E36588

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## Container Information

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Package Level 1 Units	box 1 piece
Package Level 1 Width	280 mm
Package Level 1 Depth / Length	375 mm
Package Level 1 Height	310 mm
Package Level 1 Gross Weight	12 kg
Package Level 1 EAN	7320500540923

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## Classifications

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Object Classification Code	Q
ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 5	EC000066 - Magnet contactor, AC-switching
ETIM 6	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 8	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003
UNSPSC	39121529

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IDEA Granular Category  
Code (IGCC)

4755 >> Contactors

E-Number (Finland)

3709037

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## Categories

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Low Voltage Products and Systems → Control Products → Contactors → Block Contactors

