

PRODUCT-DETAILS

# AFS96-30-22-11

## AFS96-30-22-11 24-60V50/60HZ 20-60VDC

### Contactors



#### General Information

Extended Product Type	AFS96-30-22-11
Product ID	1SBL407082R1122
EAN	3471523158016
Catalog Description	AFS96-30-22-11 24-60V50/60HZ 20-60VDC Contactor

Long Description	<p>The AFS96-30-22-11 is a 3 pole - 1000 V IEC or 600 V UL contactor with fixed 2 N.O + 2 N.C. front mounted auxiliary contact blocks with screw connections, controlling motors up to 45 kW / 400 V AC (AC-3) or 60 hp / 480 V UL and switching power circuits up to 130 A (AC-1) or 115 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 (24 ... 60 V), 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.</p>
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#### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

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## Popular Downloads

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Instructions and Manuals

1SBC101052M6801

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## Dimensions

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Product Net Width	70 mm
Product Net Depth / Length	149 mm
Product Net Height	125.5 mm
Product Net Weight	1.27 kg

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## Technical

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Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	2
Number of Auxiliary Contacts NC	2
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 1000 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ )	acc. to IEC 60947-4-1, Open Contactors $q = 40\text{ °C}$ 130 A acc. to IEC 60947-5-1, $q = 40\text{ °C}$ 16 A
Rated Operational Current AC-1 ( $I_e$ )	(690 V) 40 °C 130 (690 V) 60 °C 105 A (690 V) 70 °C 90
Rated Operational Current AC-3 ( $I_e$ )	(415 V) 60 °C 96 A (440 V) 60 °C 96 A (500 V) 60 °C 80 A (690 V) 60 °C 57 A (1000 V) 60 °C 30 A (380 / 400 V) 60 °C 96 A (220 / 230 / 240 V) 60 °C 96 A
Rated Operational Power AC-3 ( $P_e$ )	(400 V) 45 kW (415 V) 55 kW (440 V) 55 kW (500 V) 55 kW (690 V) 55 kW (380 / 400 V) 45 kW (220 / 230 / 240 V) 25 kW
Rated Operational Current AC-15 ( $I_e$ )	(500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A
Rated Short-time Withstand Current ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 780 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 140 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 450 A for 0.1 s 140 A for 1 s 100 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for $I_e > 100\text{ A}$ ) at 440 V 1150 A cos phi=0.45 (cos phi=0.35 for $I_e > 100\text{ A}$ ) at 690 V 750 A

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Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour (AC-15) 1200 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 1200 cycles per hour (DC-13) 900 cycles per hour
Rated Operational Current DC-13 ( $I_{\theta}$ )	(24 V) 6 A / 144 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (250 V) 0.27 A / 68 W (400 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W
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 ( $U_{imp}$ )	8 kV
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage ( $U_c$ )	50 Hz 24 ... 60 V 50 Hz / 60 Hz 24 ... 60 V 60 Hz 24 ... 60 V DC Operation 20 ... 60 V
Operate Time	Between Coil De-energization and NC Contact Closing 19 ... 105 ms Between Coil De-energization and NO Contact Opening 17 ... 100 ms Between Coil Energization and NC Contact Opening 38 ... 95 ms Between Coil Energization and NO Contact Closing 42 ... 100 ms
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 6 ... 50 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 6 ... 50 mm <sup>2</sup> Rigid 1x 6 ... 70 mm <sup>2</sup> Rigid 2x 6 ... 50 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1/2x 1 ... 2.5 mm <sup>2</sup>
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Rigid 1/2x 1 ... 2.5 mm <sup>2</sup>
Wire Stripping Length	Auxiliary Circuit 10 mm Control Circuit 10 mm Main Circuit 17 mm
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP40 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10
Terminal Type	Screw Terminals

## Technical UL/CSA

General Use Rating UL/CSA	(600 V AC) 115 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 7-1/2 hp (200 ... 208 V AC) Three Phase 30 hp (220 ... 240 V AC) Three Phase 30 hp (240 V AC) Single Phase 20 hp (440 ... 480 V AC) Three Phase 60 hp (550 ... 600 V AC) Three Phase 75 hp
Tightening Torque UL/CSA	Auxiliary Circuit 11 IA Control Circuit 11 IA Main Circuit 53 IA

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## Environmental

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Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °C Close to Contactor without Thermal O/L Relay -40 ... +70 °C Close to Contactor for Storage -60 ... +80 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating Altitude Permissible	3000 m
Resistance to Vibrations acc. to IEC 60068-2-6	5 ... 300 Hz 3 g closed position / 3 g open position
Resistance to Shock acc. to IEC 60068-2-27	Closed, Shock Direction: A 25 K40 Closed, Shock Direction: B1 25 K40 Closed, Shock Direction: B2 15 K40 Closed, Shock Direction: C1 25 K40 Closed, Shock Direction: C2 25 K40
RoHS Status	Following EU Directive 2011/65/EU

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## Certificates and Declarations (Document Number)

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BV Certificate	BV_2634H36994A
CB Certificate	CB_SE-96557
CCC Certificate	CCC_2013010304646569
CQC Certificate	CQC2013010304646569
cUL Certificate	UL_20170607-E312527-14-1
Declaration of Conformity - CCC	2020980304001255
Declaration of Conformity - CE	1SBD250022U1000
DNV Certificate	DNV-GL_TAE00001AF-3
DNV GL Certificate	DNV-GL_TAE00001AF-3
EAC Certificate	EAC_RUC-FRME77B03199
GL Certificate	DNV-GL_TAE00001AF-3
Instructions and Manuals	1SBC101052M6801
RMRS Certificate	RMRS_1802705280
RoHS Information	1SBD250022U1000
UL Listing Card	E312527

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## Container Information

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Package Level 1 Units	box 1 piece
Package Level 1 Width	167 mm
Package Level 1 Depth / Length	180 mm
Package Level 1 Height	97 mm
Package Level 1 Gross Weight	1.41 kg
Package Level 1 EAN	3471523158016
Package Level 2 Units	box 6 piece
Package Level 2 Width	250 mm
Package Level 2 Depth /	300 mm

Length	
Package Level 2 Height	300 mm
Package Level 2 Gross Weight	8.46 kg
Package Level 3 Units	144 piece

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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
eClass	V11.0 : 27371003
E-Number (Finland)	3708061
E-Number (Sweden)	3210675

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## Categories

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

