

PRODUCT-DETAILS

AFS38Z-30-22-30

AFS38Z-30-22-30 24VDC Contactor



General Information

Extended Product Type	AFS38Z-30-22-30
Product ID	1SBL296082R3022
EAN	3471523158696
Catalog Description	AFS38Z-30-22-30 24VDC Contactor

Long Description

The AFS38Z-30-22-30 is a 3 pole - 690 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 18,5 kW / 400 V AC (AC-3) or 25 hp / 480 V UL and switching power circuits up to 50 A (AC-1) or 50 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 (100 ... 250 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.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

Instructions and Manuals	1SBC101052M6801
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CAD Dimensional
Drawing

2CDC001079B0201

Dimension Diagram

DNV_TAE00001AF-4

Dimensions

Product Net Width	45 mm
Product Net Depth / Length	139.5 mm
Product Net Height	86 mm
Product Net Weight	0.54 kg

Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	2
Number of Auxiliary Contacts NC	2
Standards	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N° 14
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 690 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 $q = 40^\circ\text{C}$ 50 A acc. to IEC 60947-5-1, $q = 40^\circ\text{C}$ 16 A
Rated Operational Current AC-1 (I_e)	(690 V) 40°C 50 A (690 V) 60°C 42 A (690 V) 70°C 37 A
Rated Operational Current AC-3 (I_e)	(415 V) 60°C 38 A (440 V) 60°C 38 A (500 V) 60°C 33 A (690 V) 60°C 24 A (380 / 400 V) 60°C 38 A (220 / 230 / 240 V) 60°C 40 A
Rated Operational Current AC-3e (I_e)	(415 V) 60°C 38 A (440 V) 60°C 38 A (500 V) 60°C 33 A (690 V) 60°C 24 A (380 / 400 V) 60°C 38 A (220 / 230 / 240 V) 60°C 40 A
Rated Operational Power AC-3 (P_e)	(400 V) 18.5 kW (415 V) 18.5 kW (440 V) 22 kW (500 V) 22 kW (690 V) 22 kW (380 / 400 V) 18.5 kW (220 / 230 / 240 V) 11 kW
Rated Operational Power AC-3e (P_e)	(415 V) 18.5 kW (440 V) 22 kW (500 V) 22 kW (690 V) 22 kW (380 / 400 V) 18.5 kW (220 / 230 / 240 V) 11 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 Low Voltage (I_{cw})	at 40°C Ambient Temp, in Free Air, from a Cold State 10 s 350 A at 40°C Ambient Temp, in Free Air, from a Cold State 15 min 50 A at 40°C Ambient Temp, in Free Air, from a Cold State 1 min 150 A at 40°C Ambient Temp, in Free Air, from a Cold State 1 s 700 A at 40°C Ambient Temp, in Free Air, from a Cold State 30 s 225 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 A) at 440 V 500 A cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 200 A
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 _o)	(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) 690 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U _{imp})	6 kV
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U _c)	DC Operation 24 V
Operate Time	Between Coil De-energization and NC Contact Closing 22 ... 57 ms Between Coil De-energization and NO Contact Opening 17 ... 29 ms Between Coil Energization and NC Contact Opening 20 ... 35 ms Between Coil Energization and NO Contact Closing 27 ... 53 ms
Mounting on DIN Rail	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715
Mounting by Screws (not supplied)	2 x M4 screws placed diagonally
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 1.5 ... 10 mm ² Flexible with Insulated Ferrule 1x 1.5 ... 10 mm ² Flexible with Insulated Ferrule 2x 1.5 ... 4 mm ² Rigid 1/2x 2.5 ... 10 mm ²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Rigid 1/2x 1 ... 2.5 mm ²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid 1/2x 1 ... 2.5 mm ²
Wire Stripping Length	Auxiliary Circuit 10 mm Control Circuit 10 mm Main Circuit 14 mm
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20
Terminal Type	Screw Terminals

Technical UL/CSA

General Use Rating UL/CSA	(600 V AC) 50 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 2 hp (200 ... 208 V AC) Three Phase 10 hp (220 ... 240 V AC) Three Phase 10 hp (240 V AC) Single Phase 5 hp (440 ... 480 V AC) Three Phase 25 hp (550 ... 600 V AC) Three Phase 30 hp
Tightening Torque UL/CSA	Auxiliary Circuit 11 in-lb Control Circuit 11 in-lb Main Circuit 22 in-lb

Environmental

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	Without Derating 3000 m
Resistance to Vibrations acc. to IEC 60068-2-6	5 ... 300 Hz 4 g closed position / 2 g open position
Resistance to Shock acc. to IEC 60068-2-27	Closed, Shock Direction: A 30 g Closed, Shock Direction: B1 25 g Closed, Shock Direction: B2 15 g Closed, Shock Direction: C1 25 g Closed, Shock Direction: C2 25 g
RoHS Status	Following EU Directive 2011/65/EU

Certificates and Declarations (Document Number)

ABS Certificate	ABS_20-2060694-PDA
CB Certificate	CB_SE-96552
CCC Certificate	CCC_2010010304445623
CQC Certificate	CQC2010010304445623
Declaration of Conformity - CCC	2020980304001254
Declaration of Conformity - CE	1SBD250022U1000
Declaration of Conformity - UKCA	1SBD250044U1000
EAC Certificate	EAC_RUC-FRME77B03199
GL Certificate	DNV-GL_TAE00001AF-3
Instructions and Manuals	1SBC101052M6801
REACH Declaration	2CMT2021-006202
RINA Certificate	RINA_ELE240318XG
RMRS Certificate	RMRS_1802705280
RoHS Information	2CMT2021-006277
UL Certificate	UL_20191021-E312527_7_1
UL Listing Card	E312527

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	96 mm
Package Level 1 Depth / Length	145 mm
Package Level 1 Height	50 mm
Package Level 1 Gross Weight	0.591 kg
Package Level 1 EAN	3471523158696
Package Level 2 Units	crate 12 piece
Package Level 2 Width	51 mm
Package Level 2 Depth / Length	98 mm
Package Level 2 Height	148 mm
Package Level 2 Gross Weight	7.092 kg
Package Level 3 Units	576 piece

Classifications

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
E-Number (Finland)	3708050
E-Number (Sweden)	3210682

Categories

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

