



**Automatización Eléctrica**

Especialistas en Automatización

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## General Information

Extended Product Type:	AF09Z-30-01-20
Product ID:	1SBL136001R2001
EAN:	3471523113305
Catalog Description:	AF09Z-30-01-20 12-20VDC Contactor
Long Description:	AF09Z contactors are used for controlling power circuits up to 690 V AC and 220 V DC. They are mainly used for controlling 3-phase motors, non-inductive or slightly inductive loads. AF..Z contactors include an electronic coil interface accepting a wide control voltage $U_c \min. \dots U_c \max.$ Only four coils cover control voltages between 24...250 V 50/60 Hz or 12...250 V DC. AF..Z contactors can manage large control voltage variations. One coil can be used for different control voltages used worldwide without any coil change. AF..Z contactors allow direct control by PLC-output $\geq 24$ V DC 500 mA and obtain a reduced holding coil consumption. AF..Z contactors withstand short voltage dips and voltage sags (SEMI F47-0706 compliance) between 24...250 V 50/60 Hz AF..Z contactors have built-in surge protection and do not require additional surge suppressors The AF... series 1-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles, 1 built-in auxiliary contact, front and side-mounted add-on auxiliary contact blocks. (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1. N.C. mirror contacts compliant with Annex F of IEC 60947-4-1) - Control circuit: DC operated for AF..Z-30-..-20 contactors. Only AF..Z-30-..-20 contactors need to respect the polarity on the coil terminals (A1+ and A2-). - Accessories: a wide range of accessories is available.

## Categories

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

## Ordering

EAN:	3471523113305
Minimum Order Quantity:	1 piece
Customs Tariff Number:	85369085

## Dimensions

Product Net Width:	45 mm
Product Net Depth:	77 mm
Product Net Height:	86 mm
Product Net Weight:	0.310 kg

## Container Information

Package Level 1 Units:	1 piece
Package Level 1 Width:	87 mm
Package Level 1 Length:	79 mm
Package Level 1 Height:	47 mm
Package Level 1 Gross Weight:	0.31 kg
Package Level 1 EAN:	3471523113305
Package Level 2 Units:	54 piece
Package Level 2 Width:	250 mm
Package Level 2 Length:	300 mm
Package Level 2 Height:	315 mm
Package Level 3 Units:	1296 piece

## Technical

Number of Main Contacts NO:	3
Number of Main Contacts NC:	0
Number of Auxiliary Contacts NO:	0
Number of Auxiliary Contacts NC:	1
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 $q = 40^\circ\text{C}$ 35 A acc. to IEC 60947-5-1, $q = 40^\circ\text{C}$ 16 A
Rated Operational Current AC-1 ( $I_e$ ):	(690 V) $40^\circ\text{C}$ 25 A (690 V) $60^\circ\text{C}$ 25 A (690 V) $70^\circ\text{C}$ 22 A
Rated Operational Current AC-3 ( $I_e$ ):	(220 / 230 / 240 V) $60^\circ\text{C}$ 9 A

	(380 / 400 V) 60 °C 9 A (415 V) 60 °C 9 A (440 V) 60 °C 9 A (500 V) 60 °C 9.5 A (690 V) 60 °C 7 A
<b>Rated Operational Power AC-3 (P<sub>e</sub>):</b>	(220 / 230 / 240 V) 2.2 kW (380 / 400 V) 4 kW (415 V) 4 kW (440 V) 4 kW (500 V) 5.5 kW (690 V) 5.5 kW
<b>Rated Operational Current AC-15 (I<sub>e</sub>):</b>	(220 / 240 V) 4 A (24 / 127 V) 6 A (400 / 440 V) 3 A (500 V) 2 A (690 V) 2 A
<b>Rated Short-time Withstand Current (I<sub>cw</sub>):</b>	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 150 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 35 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 60 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 80 A for 0.1 s 140 A for 1 s 100 A
<b>Maximum Breaking Capacity:</b>	cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 250 A cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 106 A
<b>Maximum Electrical Switching Frequency:</b>	AC-1 600 cycles per hour AC-15 1200 cycles per hour AC-2 / AC-4 300 cycles per hour AC-3 1200 cycles per hour DC-13 900 cycles per hour
<b>Rated Operational Current DC-13 (I<sub>e</sub>):</b>	(110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (24 V) 6 A / 144 W (250 V) 0.27 A / 68 W (400 V) 0.15 A / 60 W (48 V) 2.8 A / 134 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W (72 V) 1 A / 72 W
<b>Rated Insulation Voltage (U<sub>i</sub>):</b>	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V
<b>Rated Impulse Withstand Voltage (U<sub>imp</sub>):</b>	6 kV
<b>Maximum Mechanical Switching Frequency:</b>	3600 cycles per hour
<b>Rated Control Circuit Voltage (U<sub>c</sub>):</b>	DC Operation 12 ... 20 V
<b>Operate Time:</b>	Between Coil De-energization and NC Contact Closing 13...98 ms Between Coil De-energization and NO Contact Opening 11...95 ms Between Coil Energization and NC Contact Opening 38...90 ms Between Coil Energization and NO Contact Closing 40...95 ms
<b>Connecting Capacity-Main Circuit:</b>	Flexible with Insulated Ferrule 1x 0.75...4 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75...2.5 mm <sup>2</sup> Flexible with Ferrule 1/2x 0.75...6 mm <sup>2</sup> Rigid 1/2x 1...6 mm <sup>2</sup>
<b>Connecting Capacity-Auxiliary Circuit:</b>	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>
<b>Connecting Capacity-Control Circuit:</b>	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>
<b>Wire Stripping Length:</b>	Auxiliary Circuit 10 mm Control Circuit 10 mm Main Circuit 10 mm
<b>Degree of Protection:</b>	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
<b>Terminal Type:</b>	Screw Terminals

## Environmental

<b>Ambient Air Temperature:</b>	Close to Contactor for Storage -60...+80 °C Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °C Close to Contactor without Thermal O/L Relay -40 ... +70 °C
<b>Maximum Operating Altitude</b>	3000 m

<b>Permissible:</b>	
<b>Resistance to Shock acc. to IEC 60068-2-27:</b>	Closed, Shock Direction: B1 25 g Open, Shock Direction: B1 5 g Shock Direction: A 30 g Shock Direction: B2 15 g Shock Direction: C1 25 g Shock Direction: C2 25 g
<b>Resistance to Vibrations acc. to IEC 60068-2-6:</b>	5...300 Hz 4 g closed position / 2 g open position
<b>RoHS Status:</b>	Planned to follow EU Directive 2002/95/EC August 18, 2005 and amendment after 2008 Q1

#### Technical UL/CSA

<b>General Use Rating UL/CSA:</b>	(600 V AC) 25 A
<b>Horsepower Rating UL/CSA:</b>	(120 V AC) Single Phase 3/4 Hp (240 V AC) Single Phase 1-1/2 Hp (200 ... 208 V AC) Three Phase 2 Hp (220 ... 240 V AC) Three Phase 2 Hp (440 ... 480 V AC) Three Phase 5 Hp (550 ... 600 V AC) Three Phase 7-1/2 Hp
<b>Tightening Torque UL/CSA:</b>	Auxiliary Circuit 11 in·lb Control Circuit 11 in·lb Main Circuit 13 in·lb

#### Certificates and Declarations (Document Number)

<b>ABS Certificate:</b>	ABS_15-GE1349500-PDA_90682247
<b>CB Certificate:</b>	CB_SE_70855M1
<b>CCC Certificate:</b>	CCC_2010010304445624
<b>cUL Certificate:</b>	UL_20091124-E312527-7-1
<b>Declaration of Conformity - CE:</b>	1SBD250164C3000
<b>DNV Certificate:</b>	DNV-GL_E13871
<b>EAC Certificate:</b>	EAC_RU C-FR ME77 B01010
<b>GL Certificate:</b>	DNV-GL_E13871
<b>GOST Certificate:</b>	GOST_POCCFR.ME77.B07175.pdf
<b>LR Certificate:</b>	LRS_1300087E1
<b>RINA Certificate:</b>	RINA_ELE084013XG
<b>RMRS Certificate:</b>	RMRS_1400682124
<b>RoHS Information:</b>	1SBD251013E1000

#### Classifications

<b>ETIM 5:</b>	EC000066 - Magnet contactor, AC-switching
<b>UNSPSC:</b>	39121529





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Product	Code	Reference	Product link
AF09Z-30-01-20 12-20VDC Contactor	1SBL136001R2001	AF09Z-30-01-20	<a href="#">Buy on EAN</a>