

## General Information

Extended Product Type:	AF30Z-30-00-21
Product ID:	1SBL276001R2100
EAN:	3471523114418
Catalog Description:	AF30Z-30-00-21 24-60V50/60HZ 20-60VDC Contactor
Long Description:	AF30Z 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. ... $U_c$ 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, 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: AC or DC operated - Accessories: a wide range of accessories is available.

## Categories

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

## Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85369085
EAN:	3471523114418

## Dimensions

Product Net Depth:	86 mm
Product Net Height:	86 mm
Product Net Weight:	0.350 kg
Product Net Width:	45 mm

## Container Information

Package Level 1 Width:	87 mm
Package Level 1 Length:	87 mm
Package Level 1 Height:	47 mm
Package Level 1 Gross Weight:	0.35 kg
Package Level 1 EAN:	3471523114418
Package Level 2 Units:	45 piece
Package Level 2 Width:	250 mm
Package Level 2 Length:	300 mm
Package Level 2 Height:	315 mm
Package Level 3 Units:	1080 piece
Package Level 1 Units:	1 piece

## Technical

Number of Main Contacts NC:	0
Number of Auxiliary Contacts NO:	0
Number of Auxiliary Contacts NC:	0
Standards:	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N°14
Rated Operational Voltage:	Main Circuit 690 V
Rated Frequency (f):	Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ ):	acc. to IEC 60947-4-1, Open Contactors $q = 40$ °C 50 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 ( $I_e$ ):	(220 / 230 / 240 V) 60 °C 33 A (380 / 400 V) 60 °C 32 A (415 V) 60 °C 32 A (440 V) 60 °C 32 A (500 V) 60 °C 28 A (690 V) 60 °C 21 A

<b>Rated Operational Power AC-3 (P<sub>e</sub>):</b>	(220 / 230 / 240 V) 9 kW (380 / 400 V) 15 kW (400 V) 15 kW (415 V) 15 kW (440 V) 18.5 kW (500 V) 18.5 kW (690 V) 18.5 kW
<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 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
<b>Maximum Breaking Capacity:</b>	cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 500 A cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 200 A
<b>Maximum Electrical Switching Frequency:</b>	AC-1 600 cycles per hour AC-2 / AC-4 150 cycles per hour AC-3 1200 cycles per hour
<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>	50 Hz 24 ... 60 V 60 Hz 24 ... 60 V DC Operation 20 ... 60 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 1.5...10 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 1.5...4 mm <sup>2</sup> Flexible with Ferrule 1/2x 1.5...10 mm <sup>2</sup> Rigid 1/2x 2.5...10 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>	Control Circuit 10 mm Main Circuit 14 mm
<b>Degree of Protection:</b>	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
<b>Number of Main Contacts NO:</b>	3

## Environmental

<b>Climatic Withstand:</b>	Category B according to IEC 60947-1 Annex Q
<b>Maximum Operating Altitude Permissible:</b>	3000 m
<b>Resistance to Vibrations acc. to IEC 60068-2-6:</b>	5 ... 300 Hz 4 g closed position / 2 g open position
<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>RoHS Status:</b>	Planned to follow EU Directive 2002/95/EC August 18, 2005 and amendment after 2008 Q1
<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

## Technical UL/CSA

<b>General Use Rating UL/CSA:</b>	(600 V AC) 50 A
<b>Horsepower Rating UL/CSA:</b>	(120 V AC) Single Phase 2 Hp (240 V AC) Single Phase 5 Hp (200 ... 208 V AC) Three Phase 10 Hp (220 ... 240 V AC) Three Phase 10 Hp (440 ... 480 V AC) Three Phase 20 Hp (550 ... 600 V AC) Three Phase 25 Hp
<b>Tightening Torque UL/CSA:</b>	Control Circuit 11 in·lb Main Circuit 22 in·lb

## Certificates and Declarations (Document Number)

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Instructions and Manuals:	1SBC101027M6801
ABS Certificate:	ABS_15-GE1349500-PDA_90682247
CB Certificate:	CB_SE_70856M1
CCC Certificate:	CCC_2010010304445623
Data Sheet, Technical Information:	1SBC101411D0201
Declaration of Conformity - CE:	1SBD250000U1000
DNV Certificate:	DNV-GL_E13871
EAC Certificate:	EAC_RU C-FR ME77 B01010
GL Certificate:	DNV-GL_E13871
GOST Certificate:	GOST_POCCFR.ME77.B07175.pdf
LR Certificate:	LRS_1300087E1
RINA Certificate:	RINA_ELE084013XG
RMRS Certificate:	RMRS_1400682124
RoHS Information:	1SBD251012E1000
UL Certificate:	UL_20140305-E312527_7_1
UL Listing Card:	UL_E312527

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## Classifications

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E-nummer:	3211380
ETIM 4:	EC000066 - Magnet contactor, AC-switching
ETIM 5:	EC000066 - Magnet contactor, AC-switching
ETIM 6:	EC000066 - Power contactor, AC switching
UNSPSC:	39121529
Object Classification Code:	Q

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