

PRODUCT-DETAILS

# AF30Z-30-00-20

## AF30Z-30-00-20 12-20VDC Contactor



### General Information

Extended Product Type	AF30Z-30-00-20
Product ID	1SBL276001R2000
EAN	3471523114401
Catalog Description	AF30Z-30-00-20 12-20VDC Contactor
Long Description	The AF30Z-30-00-20 is a 3 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 15 kW / 400 V AC (AC-3) or 20 hp / 480 V UL and switching power circuits up to 50 A (AC-1) or 50 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (12-20 V 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

Instructions and Manuals	1SBC101027M6801
CAD Dimensional Drawing	2CDC001079B0201

## Dimensions

Product Net Width	45 mm
Product Net Depth / Length	86 mm
Product Net Height	86 mm
Product Net Weight	0.35 kg

## Technical

Number of Main Contacts NO	3
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 ( $I_e$ )	(415 V) 60 °C 32 A (440 V) 60 °C 32 A (500 V) 60 °C 28 A (690 V) 60 °C 21 A (380 / 400 V) 60 °C 32 A (220 / 230 / 240 V) 60 °C 33 A
Rated Operational Current AC-3e ( $I_e$ )	(415 V) 60 °C 32 A (440 V) 60 °C 32 A (500 V) 60 °C 28 A (690 V) 60 °C 21 A (380 / 400 V) 60 °C 32 A (220 / 230 / 240 V) 60 °C 33 A
Rated Operational Power AC-3 ( $P_e$ )	(400 V) 15 kW (415 V) 15 kW (440 V) 18.5 kW (500 V) 18.5 kW (690 V) 18.5 kW (380 / 400 V) 15 kW (220 / 230 / 240 V) 9 kW
Rated Operational Power AC-3e ( $P_e$ )	(415 V) 15 kW (440 V) 18.5 kW (500 V) 18.5 kW (690 V) 18.5 kW (380 / 400 V) 15 kW (220 / 230 / 240 V) 9 kW
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 1 s -empty- 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-2 / AC-4) 150 cycles per hour (AC-3) 1200 cycles per hour
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	6 kV

Withstand Voltage ( $U_{imp}$ )	
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage ( $U_c$ )	DC Operation 12 ... 20 V
Operate Time	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
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 <sup>2</sup> Flexible with Insulated Ferrule 1x 1.5 ... 10 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 1.5 ... 4 mm <sup>2</sup> Rigid 1/2x 2.5 ... 10 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	Control Circuit 10 mm Main Circuit 14 mm
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 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 20 hp (550 ... 600 V AC) Three Phase 25 hp
Tightening Torque UL/CSA	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: 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
RoHS Status	Following EU Directive 2011/65/EU

## Certificates and Declarations (Document Number)

ABS Certificate	ABS_20-2060694-PDA
BV Certificate	BV_2634H24898B0
CB Certificate	CB_SE-96552M1

CCC Certificate	CCC_2010010304445623
CQC Certificate	CQC2010010304445623 CQC2020010304294316
Declaration of Conformity - CCC	2020980304001254 2020980304001052
Declaration of Conformity - CE	1SBD250000U1000
Declaration of Conformity - UKCA	1SBD250031U1000
EAC Certificate	EAC_RU_FRME77B03447
Environmental Information	1SBD250149E1000 1SBC100222M0201
GL Certificate	DNV-GL_TAE00001AF-3
GOST Certificate	GOST_POCCFR.ME77.B07175.pdf
Instructions and Manuals	1SBC101027M6801
KC Certificate	KC_HW02016-15001C
LR Certificate	LRS_1300087E1
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	87 mm
Package Level 1 Depth / Length	87 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.35 kg
Package Level 1 EAN	3471523114401
Package Level 2 Units	box 21 piece
Package Level 2 Width	250 mm
Package Level 2 Depth / Length	300 mm
Package Level 2 Height	315 mm
Package Level 2 Gross Weight	15.75 kg
Package Level 3 Units	1080 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)	3706293

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## Categories

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

