

PRODUCT-DETAILS

# AF38Z-40-00-20

## AF38Z-40-00-20 12-20VDC Contactor



### General Information

Extended Product Type	AF38Z-40-00-20
Product ID	1SBL296201R2000
EAN	3471523116108
Catalog Description	AF38Z-40-00-20 12-20VDC Contactor
Long Description	<p>The AF38Z-40-00-20 is a 4 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 11 kW / 400 V AC (AC-3) and switching power circuits up to 55 A (AC-1) or 55 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.</p>

### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

### Popular Downloads

Instructions and Manuals	1SBC101027M6801
Dimension Diagram	DNV_TAE00001AF-4

## Dimensions

Product Net Width	45 mm
Product Net Depth / Length	101 mm
Product Net Height	86 mm
Product Net Weight	0.4 kg

## Technical

Number of Main Contacts NO	4
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 <sub>th</sub> )	acc. to IEC 60947-4-1, Open Contactors q = 40 °C 55 A
Rated Operational Current AC-1 (I <sub>e</sub> )	(690 V) 40 °C 55 A (690 V) 60 °C 45 A (690 V) 70 °C 37 A
Rated Operational Current AC-3 (I <sub>e</sub> )	(415 V) 60 °C 21.2 A (440 V) 60 °C 20 A (500 V) 60 °C 17.6 A (690 V) 60 °C 10.5 A (380 / 400 V) 60 °C 22 A (220 / 230 / 240 V) 60 °C 23.2 A
Rated Operational Power AC-3 (P <sub>e</sub> )	(400 V) 11 kW (415 V) 11 kW (440 V) 11 kW (500 V) 11 kW (690 V) 9 kW (220 / 230 / 240 V) 5.5 kW
Rated Short-time Withstand Current Low Voltage (I <sub>cw</sub> )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 55 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 450 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 225 A for 1 s -empty-A
Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour
Rated Insulation Voltage (U <sub>i</sub> )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	6 kV
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U <sub>c</sub> )	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	TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715
Mounting by Screws (not supplied)	2 x M4 screws placed diagonally
Connecting Capacity	Flexible with Ferrule 1/2x 1.5 ... 16 mm <sup>2</sup>

Main Circuit	Flexible with Insulated Ferrule 1x 1.5 ... 16 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 1.5 ... 16 mm <sup>2</sup> Rigid 1/2x 1.5 ... 16 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 12 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) 55 A
Tightening Torque UL/CSA	Control Circuit 11 in-lb Main Circuit 22 in-lb

## Environmental

Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °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-96553M1
CCC Certificate	CCC_2010010304445623
CQC Certificate	CQC2010010304445623 CQC2020010304294316
Declaration of Conformity - CCC	2020980304001254 2020980304001052
Declaration of Conformity - CE	1SBD250001U1000
Declaration of Conformity - UKCA	1SBD250032U1000
EAC Certificate	EAC_RU_FRME77B03447
Environmental Information	1SBD250153E1000
GL Certificate	DNV-GL_TAE00001AF-3
GOST Certificate	GOST_POCCFR.ME77.B07175.pdf
Instructions and Manuals	1SBC101027M6801
KC Certificate	KC_HW02016-15002C
LR Certificate	LRS_1300087E1
RINA Certificate	RINA_ELE240318XG

RMRS Certificate	RMRS_1802705280
RoHS Information	1SBD250001U1000
UL Certificate	UL_20171228-E319322_3_1
UL Listing Card	UL_E319322

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	87 mm
Package Level 1 Depth / Length	103 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.4 kg
Package Level 1 EAN	3471523116108
Package Level 2 Units	box 18 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	14.4 kg
Package Level 3 Units	864 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)	3705840

## Categories

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

