PRODUCT-DETAILS

AF30Z-30-00K-20

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

General Information

Extended Product Type	AF30Z-30-00K-20
Product ID	1SBL276005R2000
EAN	3471523156609
Catalog Description	AF30Z-30-00K-20 12-20VDC Contactor
Long Description	The AF30Z-30-00K-20 is a 3 pole - 690 V IEC or 600 UL contactor with Push-in spring 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	1SBC101054M6801

CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	45 mm
Product Net Depth / Length	86 mm
Product Net Height	92.3 mm
Product Net Weight	0.36 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/EN 60947-1, IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 No. 60947-4-1
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 Θ = 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)	(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
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 500 A cos phi=0.45 (cos phi=0.35 for Ie > 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 Operational Current DC-1 (I_e)	(110 V) 2 Poles in Series, 40 °C 50 A (110 V) 2 Poles in Series, 60 °C 42 A (110 V) 2 Poles in Series, 70 °C 37 A (110 V) 3 Poles in Series, 40 °C 50 A (110 V) 3 Poles in Series, 60 °C 42 A (110 V) 3 Poles in Series, 70 °C 37 A (220 V) 3 Poles in Series, 40 °C 50 A (220 V) 3 Poles in Series, 60 °C 42 A (220 V) 3 Poles in Series, 70 °C 37 A (72 V) 1-Pole, 40 °C 50 A (72 V) 1-Pole, 60 °C 42 A (72 V) 1-Pole, 70 °C 37 A (72 V) 2 Poles in Series, 40 °C 50 A (72 V) 2 Poles in Series, 60 °C 42 A (72 V) 2 Poles in Series, 70 °C 37 A (72 V) 3 Poles in Series, 40 °C 50 A (72 V) 3 Poles in Series, 60 °C 42 A (72 V) 3 Poles in Series, 70 °C 37 A
Rated Operational Current DC-3 (I_e)	(110 V) 2 Poles in Series, 40 °C 50 A (110 V) 2 Poles in Series, 60 °C 42 A (110 V) 2 Poles in Series, 70 °C 37 A (110 V) 3 Poles in Series, 40 °C 50 A (110 V) 3 Poles in Series, 60 °C 42 A (110 V) 3 Poles in Series, 70 °C 37 A (220 V) 3 Poles in Series, 40 °C 50 A (220 V) 3 Poles in Series, 60 °C 42 A (220 V) 3 Poles in Series, 70 °C 37 A (72 V) 1-Pole, 40 °C 50 A (72 V) 1-Pole, 60 °C 42 A (72 V) 1-Pole, 70 °C 37 A (72 V) 2 Poles in Series, 40 °C 50 A (72 V) 2 Poles in Series, 60 °C 42 A (72 V) 2 Poles in Series, 70 °C 37 A (72 V) 3 Poles in Series, 40 °C 50 A (72 V) 3 Poles in Series, 60 °C 42 A (72 V) 3 Poles in Series, 70 °C 37 A
Rated Operational Current DC-5 (I_e)	(110 V) 2 Poles in Series, 40 °C 50 A (110 V) 2 Poles in Series, 60 °C 42 A (110 V) 2 Poles in Series, 70 °C 37 A (110 V) 3 Poles in Series, 40 °C 50 A (110 V) 3 Poles in Series, 60 °C 42 A (110 V) 3 Poles in Series, 70 °C 37 A (220 V) 3 Poles in Series, 40 °C 25 A (220 V) 3 Poles in Series, 60 °C 25 A (220 V) 3 Poles in Series, 70 °C 25 A (72 V) 1-Pole, 40 °C 25 A (72 V) 1-Pole, 60 °C 25 A (72 V) 1-Pole, 70 °C 25 A (72 V) 2 Poles in Series, 40 °C 50 A (72 V) 2 Poles in Series, 60 °C 42 A (72 V) 2 Poles in Series, 70 °C 37 A (72 V) 3 Poles in Series, 40 °C 50 A (72 V) 3 Poles in Series, 60 °C 42 A (72 V) 3 Poles in Series, 70 °C 37 A
Rated Insulation Voltage (U_i)	acc. to IEC 60947-4-1 690 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 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 ... 6 mm² Flexible with Insulated Ferrule 1/2x 1 ... 6 mm² Flexible 1/2x 1 ... 6 mm² Rigid Solid 1/2x 1 ... 2.5 mm² Rigid Stranded 1/2x 4 ... 10 mm²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.5 ... 2.5 mm² Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 mm² Flexible 1/2x 0.5 ... 2.5 mm² Rigid 1/2x 1 ... 2.5 mm² Rigid Solid 1/2x 1 ... 2.5 mm²
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	Push-in Spring Terminals

Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 45 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
Connecting Capacity Main Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-8 AWG
Connecting Capacity Control Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG

Environmental

Ambient Air Temperature	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
RoHS Status	Following EU Directive 2011/65/EU

Certificates and Declarations

ABS Certificate	ABS_20-2060694-PDA
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
DNV Certificate	DNV_TAE00001AF-4
LR Certificate	LRS_LR2002723TA-02
RINA Certificate	RINA_ELE240318XG
RMRS Certificate	RMRS_1802705280
UL Certificate	UL-US-2150887-5 UL-CA-2142658-5

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	93 mm
Package Level 1 Depth / Length	86 mm
Package Level 1 Height	45 mm
Package Level 1 Gross Weight	0.375 kg
Package Level 1 EAN	3471523156609
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	16.875 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

IDEA Granular Category Code (IGCC)	4758 >> Iec Contactors
E-Number (Finland)	3707923

Categories

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