



 PRODUCT-DETAILS

AF38-30-00-13

AF38-30-00-13 100-250V50/60HZ-DC Contactor



General Information

Extended Product Type:	AF38-30-00-13
Product ID:	1SBL297001R1300
EAN:	3471523111530
Catalog Description:	AF38-30-00-13 100-250V50/60HZ-DC Contactor
Long Description:	The AF38-30-00-13 is a 3 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 18.5 kW / 400 V AC (AC-3) or 25 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 (100-250 V 50/60 Hz and 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.
Display Name:	AF38-30-00-13

Ordering

Minimum Order Quantity:	1 piece
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Customs Tariff Number: 85364900

Popular Downloads

EPLAN Data:	9AAC159650_EPLAN
Data Sheet, Technical Information:	1SBC100214C0202
Instructions and Manuals:	1SBC101027M6801
Instructions and Manuals (Part 2):	1SAC200017M0002
CAD Dimensional Drawing:	2CDC001079B0201

Dimensions

Product Net Width:	45 mm
Product Net Depth / Length:	86 mm
Product Net Height:	86 mm
Product Net Weight:	0.31 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
Number of Poles:	3P
Standards:	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60335-2-40 LZGH2 A2L, UL 60947-4-1, CSA C22.2 No. 60335-2-40 LZGH2 A2L, CSA C22.2 No. 60947-4-1
Rated Operational Voltage:	Main Circuit 690 V
Rated Frequency (f):	Control Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I _{th}):	acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 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 38 A (440 V) 60 °C 38 A (500 V) 60 °C 33 A (690 V) 60 °C 24 A (380 / 400 V) 60 °C 38 A (220 / 230 / 240 V) 60 °C 40 A
Rated Operational Current AC-3e (I _e):	(415 V) 60 °C 38 A (440 V) 60 °C 38 A (500 V) 60 °C 33 A (690 V) 60 °C 24 A (380 / 400 V) 60 °C 38 A (220 / 230 / 240 V) 60 °C 40 A

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 Operational Power AC-3 (P_e):

- (400 V) 18.5 kW
- (415 V) 18.5 kW
- (440 V) 22 kW
- (500 V) 22 kW
- (690 V) 22 kW
- (380 / 400 V) 18.5 kW
- (220 / 230 / 240 V) 11 kW

Rated Operational Power AC-3e (P_e):

- (415 V) 18.5 kW
- (440 V) 22 kW
- (500 V) 22 kW
- (690 V) 22 kW
- (380 / 400 V) 18.5 kW
- (220 / 230 / 240 V) 11 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 $I_e > 100$ A) at 440 V 500 A cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 200 A
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 Electrical Switching Frequency:	(AC-1) 600 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 1200 cycles per hour
Maximum Mechanical Switching Frequency:	3600 cycles per hour
Rated Control Circuit Voltage (U_c):	50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Power Loss:	at Rated Operating Conditions AC-1 per Pole 2.4 W at Rated Operating Conditions AC-3 per Pole 1.3 W
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 ² Flexible with Insulated Ferrule 1x 1.5 ... 10 mm ² Flexible with Insulated Ferrule 2x 1.5 ... 4 mm ² Rigid Solid 1/2x 2.5 ... 4 mm ² Rigid Stranded 1/2x 2.5 ... 10 mm ²
Connecting Capacity Control Circuit:	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 mm ²
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
Tightening Torque:	Control Circuit 1.2 N·m Main Circuit 2.5 N·m
Terminal Type:	Screw Terminals
Product Name:	Block Contactor

Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Main Circuit 600 V
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 25 hp (550 ... 600 V AC) Three Phase 30 hp
Connecting Capacity Main Circuit UL/CSA:	Rigid Solid 1/2x 14-10 AWG Rigid Stranded 1/2x 14-8 AWG
Connecting Capacity Control Circuit UL/CSA:	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG
Tightening Torque UL/CSA:	Control Circuit 11 in-lb Main Circuit 22 in-lb
Full Load Amps Motor Use:	(120 V AC) Single Phase 24 A (200 ... 208 V AC) Three Phase 32.2 A (220 ... 240 V AC) Three Phase 28 A (240 V AC) Single Phase 28 A (440 ... 480 V AC) Three Phase 34 A (550 ... 600 V AC) Three Phase 32 A

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 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
Resistance to Vibrations:	4g Closed Position & 2g Open position 5 ... 300 Hz
Pollution Degree:	3

Material Compliance

Conflict Minerals Reporting Template (CMRT):	9AKK108467A5658
REACH Declaration:	2CMT2021-006202
RoHS Declaration:	2CMT2021-006277
RoHS Information:	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
SCIP:	2d7bf7fd-e890-4c56-9ec9-a7c7ddde44d3 China

Simplified SCIP:	bb5349f2-1cfe-492b-bc8f-ff5346a1b81f Hungary 42f841dc-8a79-4c6b-9ed6-c1d09f8819f7 Netherlands 00585730-f045-4ac9-a87e-9af3535da08b Norway 282621c6-cde9-4308-abb0-2028c03c7eb2 Croatia defe27f6-ca84-4675-8133-66a1bb26038e Czechia eb09b15d-e5b9-43c6-956c-09a8d5f3549c Germany 1afd5218-df16-4b2c-90e4-54db5e4461b8 Poland 54a3e158-0bd6-45c2-b322-1b29b1cd6ea5 Poland 7e0aa955-a385-48b0-a6a9-bbe7b6ea4162 Belgium a47cc456-ef56-4722-a026-11c8884870b5 Germany 52b54a02-29e6-462b-bf6d-dd587338f5e0 France 9b9b6f33-f42e-40ad-9270-c989dc009b29 Portugal 7ba86584-78a7-4b9e-a37c-f31715964c1b Germany f3e2f191-52ab-4fc1-a30e-89f8ab7c6444 Poland 47818eee-d784-4ea4-8cbc-707ee9ae2b88 Germany 05d31a08-ab04-4e32-a2ef-97313540e2c5 Germany e68e3c92-c5ed-4eb4-99fd-0032af06f298 Sweden 9734939f-e8c2-437a-9f6b-ee9b8758691a Denmark 9a462401-c631-4a66-a47f-ff970292d08a Sweden 445d4000-fcd7-4642-bc76-7b5fca188cce France 5aab79bc-0ff1-4634-baa5-7e2bcb78b1a3 Bulgaria 1be41171-3134-4300-8ce8-6d474d85fa6f Greece 432ba246-ed46-4be4-8321-900a1b44a142 Finland 4cd0d1b6-50d5-4434-9eca-ece3dca5fb88 Hungary 901b388c-630c-44c7-a5eb-e5287a1a2fec Spain 80778ae3-510a-4410-8c25-21c439724070 Belgium 06fff3fd-27aa-42fc-9b7d-c2446cad47e7 Estonia
Toxic Substances Control Act - TSCA:	2CMT2023-006525
WEEE B2C / B2B:	Business To Business
WEEE Category:	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

ABB EcoSolutions:	Yes
ABB Site Meeting Group Waste To Landfill Target:	No non-hazardous waste is sent to a landfill
EcoSolutions Profile:	1SBC100156C0308
End Of Life Disassembling Instructions:	1SBC101080M6801
Environmental Product Declaration - EPD:	1SBD250584E4000
Improved Energy Efficiency for Customers:	Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line
Recyclability Rate of the Product acc. to EN45555:	Design for Closing Resource Loops - Standard EN45555 - 94.3 %

Certificates and Declarations

A2L Certificate – UL:	9AKK108469A4875 9AKK108469A4879
ABS Certificate:	ABS_20-2060694-PDA
BV Certificate:	BV_2634H24898C1
CB Certificate:	9AKK108472A2643
CCC Certificate:	CCC_2024010304656668
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
KC Certificate:	KC_HW02016-15001C
LR Certificate:	LRS_LR23403517TA-02
RINA Certificate:	RINA_ELE142224XG
RMRS Certificate:	RMRS_1802705280
UL Certificate:	UL-US-2150887-5 UL-CA-2142658-5
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:	0.31 kg
Package Level 1 EAN:	3471523111530

External Classifications and Standards

Object Classification Code:	Q
ETIM 7:	EC000066 - Power contactor, AC switching
ETIM 8:	EC000066 - Power contactor, AC switching
ETIM 9:	EC000066 - Power contactor, AC switching
eClass:	V11.0 : 27371003
UNSPSC:	39121529
IDEA Granular Category Code (IGCC):	4758 >> lec Contactors
E-Number (Finland):	3706309
E-Number (Sweden):	3211386

Accessories

Identifier	Description	Type	Qty	Unit Of Measure
1SBN010015R1001	CE5-01D0.1 Auxiliary Contact Block	CE5-01D0.1	1	piece
1SBN010015R1010	CE5-10D0.1 Auxiliary Contact Block	CE5-10D0.1	1	piece
1SBN010016R1001	CE5-01W0.1 Auxiliary Contact Block	CE5-01W0.1	1	piece
1SBN010016R1010	CE5-10W0.1 Auxiliary Contact Block	CE5-10W0.1	1	piece
1SBN010017R1001	CE5-01D2 Auxiliary Contact Block	CE5-01D2	1	piece

Identifier	Description	Type	Qty	Unit Of Measure
1SBN010017R1010	CE5-10D2 Auxiliary Contact Block	CE5-10D2	1	piece
1SBN010018R1001	CE5-01W2 Auxiliary Contact Block	CE5-01W2	1	piece
1SBN010018R1010	CE5-10W2 Auxiliary Contact Block	CE5-10W2	1	piece
1SBN010013R1010	CB5-10 Impulse Contact Block	CB5-10	1	piece
1SBN010013R1001	CB5-01 Impulse Contact Block	CB5-01	1	piece
1SBN010110R1010	CA4-10 Auxiliary Contact Block	CA4-10	1	piece
1SBN010110T1010	CA4-10-T Auxiliary Contact Block	CA4-10-T	1	piece
1SBN010110R1001	CA4-01 Auxiliary Contact Block	CA4-01	1	piece
1SBN010110T1001	CA4-01-T Auxiliary Contact Block	CA4-01-T	1	piece
1SBN010111R1010	CC4-10 Leading Auxiliary Contact Block	CC4-10	1	piece
1SBN010111R1001	CC4-01 Lagging Auxiliary Contact Block	CC4-01	1	piece
1SBN010120R1011	CAL4-11 Auxiliary Contact Block	CAL4-11	1	piece
1SBN010120T1011	CAL4-11-T Auxiliary Contact Block	CAL4-11-T	1	piece
1SBN010140R1022	CA4-22E Auxiliary Contact Block	CA4-22E	1	piece
1SBN010140R1031	CA4-31E Auxiliary Contact Block	CA4-31E	1	piece
1SBN010140R1040	CA4-40E Auxiliary Contact Block	CA4-40E	1	piece
1SBN010140R1004	CA4-04E Auxiliary Contact Block	CA4-04E	1	piece
1SBN010151R1011	CAT4-11E Auxiliary Contact / Coil Terminal Block	CAT4-11E	1	piece
1SBN070156T1000	LDC4 Additional Coil Terminal Block	LDC4	1	piece
1SBN030105T1000	VM4 Mechanical Interlock Unit	VM4	1	piece
1SBN030111R1000	VEM4 Mechanical and Electrical Interlock Set	VEM4	1	piece
1SBN082306T1000	BEA26-4 Connecting Link with Manual Motor Starter	BEA26-4	1	piece
1SBN020112R1000	TEF4-ON Frontal Electronic Timer	TEF4-ON	1	piece
1SBN020113R1000	TEF4S-ON Frontal Electronic Timer	TEF4S-ON	1	piece
1SBN010134R1011	CAL4-11K Auxiliary Contact Block	CAL4-11K	1	piece
1SBN082306T2000	BEA38-4 Connecting Link with Manual Motor Starter	BEA38-4	1	piece
1SBN020114R1000	TEF4-OFF Frontal Electronic Timer	TEF4-OFF	1	piece
1SBN082311R1000	BER38-4 Connection Set for Reversing Contactors	BER38-4	1	piece
1SBN020115R1000	TEF4S-OFF Frontal Electronic Timer	TEF4S-OFF	1	piece
1SBN072303T1000	LY38-4 Connecting Strip	LY38-4	1	piece
1SBN110108T1000	BX4 Protective Cover	BX4	1	piece
1SBN072304R1000	LH38-4 Connecting Strip	LH38-4	1	piece
1SBN082713R2000	BEY38-4 Connection Set for Star-Delta Starter	BEY38-4	1	piece
1SBN040100R1011	WA4-11 24-60V50/60HZ-DC Mechanical Latching Unit	WA4-11	1	piece
1SBN040100R1014	WA4-14 250-500V50/60HZ-DC Mechanical Latching Unit	WA4-14	1	piece
1SBN072308R1000	LD38-4 Additional Terminal Block	LD38-4	1	piece
1SBN110122T1000	BDT4 Test Block	BDT4	1	piece
1SBN040100R1010	WA4-10 24VDC Mechanical Latching Unit	WA4-10	1	piece
1SBN072305R1000	LF38-4 Connecting Strip	LF38-4	1	piece
1SBN040100R1012	WA4-12 48-130V50/60HZ-DC Mechanical Latching Unit	WA4-12	1	piece
1SBN060100R1000	RA4 Interface Relay	RA4	1	piece

Identifier	Description	Type	Qty	Unit Of Measure
1SBN040100R1013	WA4-13 100-250V50/60HZ-DC Mechanical Latching Unit	WA4-13	1	piece
1SBN070159T1000	LDC4K Additional Coil Terminal Block	LDC4K	1	piece
1SBN010160R1001	CA4-01K Auxiliary Contact Block	CA4-01K	1	piece
1SBN082314R1000	BEP38-30 Phase to phase connection	BEP38-30	1	piece
1SBN010146R1022	CA4-22EK Auxiliary Contact Block	CA4-22EK	1	piece
1SBN010160R1010	CA4-10K Auxiliary Contact Block	CA4-10K	1	piece
1SBN082322R1000	BER38-4KF Connection Set for Reversing Contactors	BER38-4KF	1	piece
1SBN010160T1001	CA4-01K-T Auxiliary Contact Block	CA4-01K-T	1	piece
1SBN082323R2000	BEY38-4KF Connection Set for Star-Delta Starter	BEY38-4KF	1	piece
1SBN010160T1010	CA4-10K-T Auxiliary Contact Block	CA4-10K-T	1	piece
1SBN030113R1000	VEM4K Mechanical and Electrical Interlock Set	VEM4K	1	piece
1SBN010146R1031	CA4-31EK Auxiliary Contact Block	CA4-31EK	1	piece
1SBN010146R1040	CA4-40EK Auxiliary Contact Block	CA4-40EK	1	piece

Categories

Products > Low Voltage Products and Systems > Control Products > Contactors > Block Contactors > AF Contactors > AF38

