



PRODUCT-DETAILS

AF80-30-11-13

AF80-30-11-13 100-250V50/60HZ-DC

Contactactor



General Information

Extended Product Type	AF80-30-11-13
Product ID	1SBL397001R1311
EAN	3471523133037
Catalog Description	AF80-30-11-13 100-250V50/60HZ-DC Contactor
Long Description	The AF80-30-11-13 is a 3 pole - 1000 V IEC or 600 UL contactor with pre-mounted auxiliary contacts and screw terminals, controlling motors up to 37 kW / 400 V AC (AC-3) or 60 hp / 480 V UL and switching power circuits up to 125 A (AC-1) or 105 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.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads	
EPLAN Data	9AAC175975_EPLAN
Data Sheet, Technical Information	1SBC100214C0202
Instructions and Manuals	1SBC101036M6801
Instructions and Manuals (Part 2)	1SAC200017M0002
CAD Dimensional Drawing	2CDC001079B0201

Dimensions	
Product Net Width	82 mm
Product Net Depth / Length	116 mm
Product Net Height	125.5 mm
Product Net Weight	1.21 kg

Technical	
Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	1
Number of Auxiliary Contacts NC	1
Number of Poles	3P
Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60335-2-40 LZGH2 A2L, UL 60947-1, UL 60947-4-1, CSA C22.2 No. 60335-2-40 LZGH2 A2L, CSA C22.2 No. 60947-1:22, CSA C22.2 No. 60947-4-1:22
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 1000 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz 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 Θ = 40 °C 130 A acc. to IEC 60947-5-1, Θ = 40 °C 16 A
Rated Operational Current AC-1 (I _e)	(690 V) 40 °C 125 A (690 V) 60 °C 100 A (690 V) 70 °C 85 A
Rated Operational Current AC-3 (I _e)	(415 V) 60 °C 80 A (440 V) 60 °C 80 A (500 V) 60 °C 65 A (690 V) 60 °C 49 A (1000 V) 60 °C 25 A (380 / 400 V) 60 °C 80 A (220 / 230 / 240 V) 60 °C 80 A
Rated Operational Current AC-3e (I _e)	(415 V) 60 °C 80 A (440 V) 60 °C 80 A (500 V) 60 °C 65 A (690 V) 60 °C 49 A (380 / 400 V) 60 °C 80 A (220 / 230 / 240 V) 60 °C 80 A
Rated Operational Current AC-15 (I _e)	(500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A

	(400 / 440 V) 3 A
Rated Operational Current DC-1 (I _e)	(110 V) 2 Poles in Series, 40 °C 125 A (110 V) 2 Poles in Series, 60 °C 100 A (110 V) 2 Poles in Series, 70 °C 85 A (110 V) 3 Poles in Series, 40 °C 125 A (110 V) 3 Poles in Series, 60 °C 100 A (110 V) 3 Poles in Series, 70 °C 85 A (220 V) 3 Poles in Series, 40 °C 125 A (220 V) 3 Poles in Series, 60 °C 100 A (220 V) 3 Poles in Series, 70 °C 85 A (72 V) 1-Pole, 40 °C 125 A (72 V) 1-Pole, 60 °C 100 A (72 V) 1-Pole, 70 °C 85 A (72 V) 2 Poles in Series, 40 °C 125 A (72 V) 2 Poles in Series, 60 °C 100 A (72 V) 2 Poles in Series, 70 °C 85 A (72 V) 3 Poles in Series, 40 °C 125 A (72 V) 3 Poles in Series, 60 °C 100 A (72 V) 3 Poles in Series, 70 °C 85 A
Rated Operational Current DC-3 (I _e)	(110 V) 2 Poles in Series, 40 °C 125 A (110 V) 2 Poles in Series, 60 °C 100 A (110 V) 2 Poles in Series, 70 °C 85 A (110 V) 3 Poles in Series, 40 °C 125 A (110 V) 3 Poles in Series, 60 °C 100 A (110 V) 3 Poles in Series, 70 °C 85 A (220 V) 3 Poles in Series, 40 °C 125 A (220 V) 3 Poles in Series, 60 °C 100 A (220 V) 3 Poles in Series, 70 °C 85 A (72 V) 1-Pole, 40 °C 125 A (72 V) 1-Pole, 60 °C 100 A (72 V) 1-Pole, 70 °C 85 A (72 V) 2 Poles in Series, 40 °C 125 A (72 V) 2 Poles in Series, 60 °C 100 A (72 V) 2 Poles in Series, 70 °C 85 A (72 V) 3 Poles in Series, 40 °C 125 A (72 V) 3 Poles in Series, 60 °C 100 A (72 V) 3 Poles in Series, 70 °C 85 A
Rated Operational Current DC-5 (I _e)	(110 V) 2 Poles in Series, 40 °C 125 A (110 V) 2 Poles in Series, 60 °C 100 A (110 V) 2 Poles in Series, 70 °C 85 A (110 V) 3 Poles in Series, 40 °C 125 A (110 V) 3 Poles in Series, 60 °C 100 A (110 V) 3 Poles in Series, 70 °C 85 A (220 V) 3 Poles in Series, 40 °C 125 A (220 V) 3 Poles in Series, 60 °C 100 A (220 V) 3 Poles in Series, 70 °C 85 A (72 V) 1-Pole, 40 °C 125 A (72 V) 1-Pole, 60 °C 100 A (72 V) 1-Pole, 70 °C 85 A (72 V) 2 Poles in Series, 40 °C 125 A (72 V) 2 Poles in Series, 60 °C 100 A (72 V) 2 Poles in Series, 70 °C 85 A (72 V) 3 Poles in Series, 40 °C 125 A (72 V) 3 Poles in Series, 60 °C 100 A (72 V) 3 Poles in Series, 70 °C 85 A
Rated Operational Current DC-13 (I _e)	(24 V) 6 A / 144 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (250 V) 0.27 A / 68 W (400 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W
Rated Operational Power AC-3 (P _e)	(400 V) 37 kW (415 V) 45 kW (440 V) 45 kW (500 V) 45 kW (690 V) 45 kW

	(1000 V) 35 kW (380 / 400 V) 37 kW (220 / 230 / 240 V) 22 kW
Rated Operational Power AC-3e (P _e)	(415 V) 45 kW (440 V) 45 kW (500 V) 45 kW (690 V) 45 kW (380 / 400 V) 37 kW (220 / 230 / 240 V) 22 kW
Rated Short-time Withstand Current Low Voltage (I _{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 780 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 140 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 450 A for 0.1 s 140 A for 1 s 100 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 440 V 1150 A cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 750 A
Rated Insulation Voltage (U _i)	acc. to IEC 60947-4-1 1000 V acc. to IEC 60947-5-1 690 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U _{imp})	8 kV
Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour (AC-15) 1200 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 1200 cycles per hour (DC-13) 900 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
Coil Consumption	Average Holding Value 50 / 60 Hz 4 V-A Average Holding Value 50 Hz 4 V-A Average Holding Value 60 Hz 4 V-A Average Holding Value DC 2 W Average Holding Value, from Warm State 2 W
Power Loss	at 6 A per Pole 0.1 W at Rated Operating Conditions AC-1 per Pole 7.6 W at Rated Operating Conditions AC-3 per Pole 3 W
Operate Time	Between Coil De-energization and NC Contact Closing 19 ... 105 ms Between Coil De-energization and NO Contact Opening 17 ... 100 ms Between Coil Energization and NC Contact Opening 38 ... 95 ms Between Coil Energization and NO Contact Closing 42 ... 100 ms
Mounting on DIN Rail	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715
Mounting by Screws (not supplied)	2 x M4 or 2 x M6 Screws Placed Diagonally
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 6 ... 50 mm ² Flexible with Insulated Ferrule 1/2x 6 ... 50 mm ² Rigid Stranded 1x 6 ... 70 mm ² Rigid Stranded 2x 6 ... 50 mm ²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Rigid 1/2x 1 ... 2.5 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 1/2x 1 ... 2.5 mm ²
Wire Stripping Length	Auxiliary Circuit 10 mm Control Circuit 10 mm Main Circuit 17 mm
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20

acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10	
Recommended Screw Driver	Pozidriv PZ
Tightening Torque	Auxiliary Circuit 1.2 N-m Control Circuit 1.2 N-m Main Circuit 6 N-m
Terminal Type	Screw Terminals
Product Name	Block Contactor

Technical UL/CSA

NEMA Size	3
Continuous Current Rating NEMA	90 A
Horsepower Rating NEMA	(200 V AC) Three Phase 25 Hp (230 V AC) Three Phase 30 Hp (460 V AC) Three Phase 50 Hp (575 V AC) Three Phase 50 Hp
Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 105 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 7-1/2 hp (200 ... 208 V AC) Three Phase 25 hp (220 ... 240 V AC) Three Phase 30 hp (240 V AC) Single Phase 15 hp (440 ... 480 V AC) Three Phase 60 hp (550 ... 600 V AC) Three Phase 75 hp
Connecting Capacity Main Circuit UL/CSA	Rigid Stranded 1/2x 6-1 AWG
Tightening Torque UL/CSA	Auxiliary Circuit 11 in-lb Control Circuit 11 in-lb Main Circuit 53 in-lb
Full Load Amps Motor Use	(120 V AC) Single Phase 80 A (200 ... 208 V AC) Three Phase 78.2 A (220 ... 240 V AC) Three Phase 80 A (240 V AC) Single Phase 68 A (440 ... 480 V AC) Three Phase 77 A (550 ... 600 V AC) Three Phase 77 A

Environmental

Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay -40 ... 70 °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: A 25 g Closed, Shock Direction: B1 25 g Closed, Shock Direction: B2 15 g Closed, Shock Direction: C1 25 g Closed, Shock Direction: C2 25 g Open, Shock Direction: B1 5 g
Resistance to Vibrations	3g Closed Position & 3g Open Position 5 ... 300 Hz
Pollution Degree	3

Material Compliance

Conflict Minerals	9AKK108467A5658
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Reporting Template (CMRT)	
REACH Declaration	2CMT2021-006202
RoHS Declaration	2CMT2021-006277
RoHS Information	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
SCIP	271a3ec5-cb7e-4e51-b0f4-99117d53ff88 France
Simplified SCIP	7a07c485-4699-4c8d-b6d4-4c771679175e Poland fd324474-c388-4efe-b401-7c83533ec1fd Hungary d38728f5-2788-4544-96dc-3941a70a9fa3 Bulgaria 4569fcbc-a011-468a-b140-750e9553c748 Sweden 8d685f32-0e12-490a-ae40-7795d261deff Poland 4f4f5c7a-f965-4673-b3f5-0217126fa165 Germany d8814dca-0503-4014-8869-b0dd96ce0e51 Denmark 10af2762-e589-464d-9d60-db9d4dd8a884 Germany a97c176f-71ea-4d01-9ffa-4ec7875cce19 Czech Republic d84e4491-cd87-462e-a9b3-703bcc501389 Poland 6d17b285-48ca-455a-bd3d-7764b9a63469 Estonia 6163e254-3c98-4c55-8d2a-4d1a2cd013d1 France 3ed7d9eb-1c3b-47cf-adbe-e14c04f78049 Germany 2abee4fc-d930-408a-8618-e80d80342768 Sweden 3a9f203f-eb0f-4cca-a01d-81bb6366664c Norway c1f51465-362b-45ad-b952-fcad05561f152 Croatia 809011ef-f1cf-4c87-870b-6d075661f152 Finland 8df63f9f-4b91-4ed6-a6bd-76ac31f2280a Italy 5ddecced-c929-4cda-817c-1932dd919473 Portugal de6b7bf4-5919-4bab-b4a3-41b82296a42e Hungary 46cad7cd-ec77-4f99-b8f7-10a586c6201e Belgium 884dc0d2-45ea-464a-82b5-1821efb7e661 Spain 69cef9a6-ee54-435f-9db5-1cb95a220b86 Germany 51a6bf2b-16a0-4336-a84e-758c8790b8c6 Netherlands 1774ff7b-6906-4310-affd-fae6377af504 Greece 0a43ea8e-7176-49aa-8724-b1fcdf99fcac Belgium 4ecb85f6-d9ae-4904-99c0-4c497766b72c Germany
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
End Of Life Disassembling Instructions	1SBC101081M6801
Environmental Product Declaration - EPD	1SBD250584E2000
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 Product Efficiency - Product requires less energy to operate 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 - 91.9 %

Certificates and Declarations

A2L Certificate – UL	9AKK108469A4890 9AKK108469A4892
ABS Certificate	ABS_20-2060694-PDA
BV Certificate	BV_2634H36994A
CB Certificate	CB_SE-116522

CCC Certificate	CCC_2024010304656667
Declaration of Conformity - CCC	2020980304001255
Declaration of Conformity - CE	1SBD250000U1000
Declaration of Conformity - UKCA	1SBD250031U1000
DNV Certificate	DNV_TAE00001AF-4
KC Certificate	KC_HW02016-15011C
LR Certificate	LRS_LR23403517TA-02
RINA Certificate	RINA_ELE084013XG
RMRS Certificate	RMRS_1802705280
UL Certificate	UL-US-L312527-1141-10303102-19 UL-CA-L312527-4141-10303102-19
UL Listing Card	UL_E312527

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	150 mm
Package Level 1 Depth / Length	150 mm
Package Level 1 Height	103 mm
Package Level 1 Gross Weight	1.33 kg
Package Level 1 EAN	3471523133037
Package Level 2 Units	box 8 piece
Package Level 2 Width	250 mm
Package Level 2 Depth / Length	300 mm
Package Level 2 Height	300 mm
Package Level 2 Gross Weight	10.64 kg

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)	3707127

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF80

