



PRODUCT-DETAILS

AF40-30-11-13

AF40-30-11-13 100-250V50/60HZ-DC

Contactor



General Information	
Extended Product Type	AF40-30-11-13
Product ID	1SBL347001R1311
EAN	3471523132139
Catalog Description	AF40-30-11-13 100-250V50/60HZ-DC Contactor
Long Description	The AF40-30-11-13 is a 3 pole - 690 V IEC or 600 UL contactor with pre-mounted auxiliary contacts and screw terminals, controlling motors up to 18.5 kW / 400 V AC (AC-3) or 30 hp / 480 V UL and switching power circuits up to 70 A (AC-1) or 60 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	9AAC175972_EPLAN
Data Sheet, Technical Information	1SBC100214C0202
Instructions and Manuals	1SBC101036M6801
Instructions and Manuals (Part 2)	1SAC200017M0002
CAD Dimensional Drawing	2CDC001079B0201

Dimensions	
Product Net Width	67 mm
Product Net Depth / Length	111 mm
Product Net Height	125.5 mm
Product Net Weight	0.99 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 690 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 $\Theta = 40\text{ }^{\circ}\text{C}$ 105 A acc. to IEC 60947-5-1, $\Theta = 40\text{ }^{\circ}\text{C}$ 16 A
Rated Operational Current AC-1 (I _e)	(690 V) 40 °C 70 A (690 V) 60 °C 60 A (690 V) 70 °C 50 A
Rated Operational Current AC-3 (I _e)	(415 V) 60 °C 40 A (440 V) 60 °C 40 A (500 V) 60 °C 35 A (690 V) 60 °C 25 A (380 / 400 V) 60 °C 40 A (220 / 230 / 240 V) 60 °C 40 A
Rated Operational Current AC-3e (I _e)	(415 V) 60 °C 40 A (440 V) 60 °C 40 A (500 V) 60 °C 35 A (690 V) 60 °C 25 A (380 / 400 V) 60 °C 40 A (220 / 230 / 240 V) 60 °C 40 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 70 A
(110 V) 2 Poles in Series, 60 °C 60 A
(110 V) 2 Poles in Series, 70 °C 50 A
(110 V) 3 Poles in Series, 40 °C 70 A
(110 V) 3 Poles in Series, 60 °C 60 A
(110 V) 3 Poles in Series, 70 °C 50 A
(220 V) 3 Poles in Series, 40 °C 70 A
(220 V) 3 Poles in Series, 60 °C 60 A
(220 V) 3 Poles in Series, 70 °C 50 A
(72 V) 1-Pole, 40 °C 70 A
(72 V) 1-Pole, 60 °C 60 A
(72 V) 1-Pole, 70 °C 50 A
(72 V) 2 Poles in Series, 40 °C 70 A
(72 V) 2 Poles in Series, 60 °C 60 A
(72 V) 2 Poles in Series, 70 °C 50 A
(72 V) 3 Poles in Series, 40 °C 70 A
(72 V) 3 Poles in Series, 60 °C 60 A
(72 V) 3 Poles in Series, 70 °C 50 A

Rated Operational
Current DC-3 (I_e)

(110 V) 2 Poles in Series, 40 °C 70 A
(110 V) 2 Poles in Series, 60 °C 60 A
(110 V) 2 Poles in Series, 70 °C 50 A
(110 V) 3 Poles in Series, 40 °C 70 A
(110 V) 3 Poles in Series, 60 °C 60 A
(110 V) 3 Poles in Series, 70 °C 50 A
(220 V) 3 Poles in Series, 40 °C 70 A
(220 V) 3 Poles in Series, 60 °C 60 A
(220 V) 3 Poles in Series, 70 °C 50 A
(72 V) 1-Pole, 40 °C 70 A
(72 V) 1-Pole, 60 °C 60 A
(72 V) 1-Pole, 70 °C 50 A
(72 V) 2 Poles in Series, 40 °C 70 A
(72 V) 2 Poles in Series, 60 °C 60 A
(72 V) 2 Poles in Series, 70 °C 50 A
(72 V) 3 Poles in Series, 40 °C 70 A
(72 V) 3 Poles in Series, 60 °C 60 A
(72 V) 3 Poles in Series, 70 °C 50 A

Rated Operational
Current DC-5 (I_e)

(110 V) 2 Poles in Series, 40 °C 70 A
(110 V) 2 Poles in Series, 60 °C 60 A
(110 V) 2 Poles in Series, 70 °C 50 A
(110 V) 3 Poles in Series, 40 °C 70 A
(110 V) 3 Poles in Series, 60 °C 60 A
(110 V) 3 Poles in Series, 70 °C 50 A
(220 V) 3 Poles in Series, 40 °C 70 A
(220 V) 3 Poles in Series, 60 °C 60 A
(220 V) 3 Poles in Series, 70 °C 50 A
(72 V) 1-Pole, 40 °C 70 A
(72 V) 1-Pole, 60 °C 60 A
(72 V) 1-Pole, 70 °C 50 A
(72 V) 2 Poles in Series, 40 °C 70 A
(72 V) 2 Poles in Series, 60 °C 60 A
(72 V) 2 Poles in Series, 70 °C 50 A
(72 V) 3 Poles in Series, 40 °C 70 A
(72 V) 3 Poles in Series, 60 °C 60 A
(72 V) 3 Poles in Series, 70 °C 50 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) 18.5 kW
(415 V) 22 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) 22 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 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 250 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 350 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 950 A cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 600 A
Rated Insulation Voltage (U _i)	acc. to IEC 60947-4-1 690 V acc. to IEC 60947-5-1 690 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-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 3 W at Rated Operating Conditions AC-3 per Pole 1 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 TH35-7.5 (35 x 7.5 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 4 ... 35 mm ² Flexible with Insulated Ferrule 1/2x 4 ... 35 mm ² Rigid Stranded 1/2x 6 ... 35 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 Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 mm ²
Wire Stripping Length	Auxiliary Circuit 10 mm Control Circuit 10 mm Main Circuit 16 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 4 N·m
Terminal Type	Screw Terminals
Product Name	Block Contactor

Technical UL/CSA

NEMA Size	2
Continuous Current Rating NEMA	45 A
Horsepower Rating NEMA	(115 V AC) Single Phase 3 Hp (200 V AC) Three Phase 10 Hp (230 V AC) Single Phase 7-1/2 Hp (230 V AC) Three Phase 15 Hp (460 V AC) Three Phase 25 Hp (575 V AC) Three Phase 25 Hp
Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 60 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 3 hp (200 ... 208 V AC) Three Phase 10 hp (220 ... 240 V AC) Three Phase 15 hp (240 V AC) Single Phase 7-1/2 hp (440 ... 480 V AC) Three Phase 30 hp (550 ... 600 V AC) Three Phase 40 hp
Connecting Capacity Main Circuit UL/CSA	Rigid Stranded 1/2x 10-2 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	Auxiliary Circuit 11 in·lb Control Circuit 11 in·lb Main Circuit 35 in·lb
Full Load Amps Motor Use	(120 V AC) Single Phase 34 A (200 ... 208 V AC) Three Phase 32.2 A (220 ... 240 V AC) Three Phase 42 A (240 V AC) Single Phase 40 A (440 ... 480 V AC) Three Phase 41 A (550 ... 600 V AC) Three Phase 40 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 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	bba93f86-cab1-4bdf-98ab-334e20efeb9 France	
Simplified SCIP	aab41b3b-f288-46ae-b2a9-06e5f0b4471b Germany 4cb5d32e-29e0-4631-a0a4-af9ef3b0eea0 Hungary 8870b071-fc03-4cf2-95d9-54102176a134 Spain 109b52fa-80da-4dbb-a67d-1e0dbe015481 Belgium 4b433990-61a0-428b-8d4c-7e537c2c769a Hungary 518243f6-bedf-44e1-9109-1cf79ae8ecbb Estonia 527e7616-d3ca-4045-acfa-81dea5cffa55 Greece c25e8e6c-ba6c-4c5f-a742-75212abf86c8 Portugal 6a54e910-6e1d-48da-b1cd-e0aac9c0b2c7 Bulgaria 03b61e36-715c-40e0-90a8-ec718552d68f Poland 50d16ee4-9f75-44eb-9b03-b4e649f32257 Finland 580aaa2e-4e3b-4357-99c4-d2c79a273474 Germany 6b98ee8b-c69a-41c2-9dc1-5ca099b085ff Norway e49814bb-2f00-4505-bc1f-cac94c92c89e Belgium 39f7085c-b580-4a36-a322-6deb6bbfee18 Italy 33e3abc9-d491-4037-8812-094130f748bf Poland a9f4599f-4ce0-40e3-ba3d-67d507cecba9 France eb0cd70f-e340-44d0-9a25-6a9f16a2202e Sweden fb1128a1-c3c1-47a7-a1c6-05ed233d9ceb Germany 217ec338-1b73-4044-9791-ab6d2afadb2f Germany e29fd3d2-c7d3-45e8-886d-590dfc194a4c Denmark 429eb4d1-7c50-486e-965f-a2c15ca0b21e Germany e8de44f6-c08e-414e-aa2e-23205315eb28 Croatia f8c26055-6f16-4130-b9a4-013e9ed58758 Czech Republic 8b2fea28-3b77-460b-b679-d0ba79a8bf6d Poland 4bdaa5ea-c540-4347-899e-a74f681b3d8f Netherlands 8cb1740b-9b65-4e96-bd26-79a9684c7a42 Sweden	
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		1SBD250584E1000
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_2634H36994B2
CB Certificate	SE-115941
CCC Certificate	CCC_2024010304648524
Declaration of Conformity - CCC	2020980304001256 2020980304001074
Declaration of Conformity - CE	1SBD250000U1000
Declaration of Conformity - UKCA	1SBD250031U1000
DNV Certificate	DNV_TAE00001AF-4
KC Certificate	KC_HW02016-15006C
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	97 mm
Package Level 1 Gross Weight	1.09 kg
Package Level 1 EAN	3471523132139
Package Level 2 Units	box 10 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	10.9 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)	3707004

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF40

