



PRODUCT-DETAILS

AF52-30-11-11

AF52-30-11-11 24-60V50/60HZ 20-60VDC

Contactors



General Information	
Extended Product Type	AF52-30-11-11
Product ID	1SBL367001R1111
EAN	3471523132412
Catalog Description	AF52-30-11-11 24-60V50/60HZ 20-60VDC Contactors
Long Description	The AF52-30-11-11 is a 3 pole - 690 V IEC or 600 UL contactor with pre-mounted auxiliary contacts and screw terminals, controlling motors up to 22 kW / 400 V AC (AC-3) or 40 hp / 480 V UL and switching power circuits up to 100 A (AC-1) or 80 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (24-60 V 50/60 Hz and 20-60 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	
EPLAN Data	9AAC175973_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	1.01 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 Θ = 40 °C 105 A acc. to IEC 60947-5-1, Θ = 40 °C 16 A
Rated Operational Current AC-1 (I _e)	(690 V) 40 °C 100 A (690 V) 60 °C 80 A (690 V) 70 °C 70 A
Rated Operational Current AC-3 (I _e)	(415 V) 60 °C 53 A (440 V) 60 °C 53 A (500 V) 60 °C 45 A (690 V) 60 °C 35 A (380 / 400 V) 60 °C 53 A (220 / 230 / 240 V) 60 °C 53 A
Rated Operational Current AC-3e (I _e)	(415 V) 60 °C 53 A (440 V) 60 °C 53 A (500 V) 60 °C 45 A (690 V) 60 °C 35 A (380 / 400 V) 60 °C 53 A (220 / 230 / 240 V) 60 °C 53 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 100 A
- (110 V) 2 Poles in Series, 60 °C 80 A
- (110 V) 2 Poles in Series, 70 °C 70 A
- (110 V) 3 Poles in Series, 40 °C 100 A
- (110 V) 3 Poles in Series, 60 °C 80 A
- (110 V) 3 Poles in Series, 70 °C 70 A
- (220 V) 3 Poles in Series, 40 °C 100 A
- (220 V) 3 Poles in Series, 60 °C 80 A
- (220 V) 3 Poles in Series, 70 °C 70 A
- (72 V) 1-Pole, 40 °C 100 A
- (72 V) 1-Pole, 60 °C 80 A
- (72 V) 1-Pole, 70 °C 70 A
- (72 V) 2 Poles in Series, 40 °C 100 A
- (72 V) 2 Poles in Series, 60 °C 80 A
- (72 V) 2 Poles in Series, 70 °C 70 A
- (72 V) 3 Poles in Series, 40 °C 100 A
- (72 V) 3 Poles in Series, 60 °C 80 A
- (72 V) 3 Poles in Series, 70 °C 70 A

Rated Operational
Current DC-3 (I_e)

- (110 V) 2 Poles in Series, 40 °C 100 A
- (110 V) 2 Poles in Series, 60 °C 80 A
- (110 V) 2 Poles in Series, 70 °C 70 A
- (110 V) 3 Poles in Series, 40 °C 100 A
- (110 V) 3 Poles in Series, 60 °C 80 A
- (110 V) 3 Poles in Series, 70 °C 70 A
- (220 V) 3 Poles in Series, 40 °C 100 A
- (220 V) 3 Poles in Series, 60 °C 80 A
- (220 V) 3 Poles in Series, 70 °C 70 A
- (72 V) 1-Pole, 40 °C 100 A
- (72 V) 1-Pole, 60 °C 80 A
- (72 V) 1-Pole, 70 °C 70 A
- (72 V) 2 Poles in Series, 40 °C 100 A
- (72 V) 2 Poles in Series, 60 °C 80 A
- (72 V) 2 Poles in Series, 70 °C 70 A
- (72 V) 3 Poles in Series, 40 °C 100 A
- (72 V) 3 Poles in Series, 60 °C 80 A
- (72 V) 3 Poles in Series, 70 °C 70 A

Rated Operational
Current DC-5 (I_e)

- (110 V) 2 Poles in Series, 40 °C 100 A
- (110 V) 2 Poles in Series, 60 °C 80 A
- (110 V) 2 Poles in Series, 70 °C 70 A
- (110 V) 3 Poles in Series, 40 °C 100 A
- (110 V) 3 Poles in Series, 60 °C 80 A
- (110 V) 3 Poles in Series, 70 °C 70 A
- (220 V) 3 Poles in Series, 40 °C 100 A
- (220 V) 3 Poles in Series, 60 °C 80 A
- (220 V) 3 Poles in Series, 70 °C 70 A
- (72 V) 1-Pole, 40 °C 100 A
- (72 V) 1-Pole, 60 °C 80 A
- (72 V) 1-Pole, 70 °C 70 A
- (72 V) 2 Poles in Series, 40 °C 100 A
- (72 V) 2 Poles in Series, 60 °C 80 A
- (72 V) 2 Poles in Series, 70 °C 70 A
- (72 V) 3 Poles in Series, 40 °C 100 A
- (72 V) 3 Poles in Series, 60 °C 80 A
- (72 V) 3 Poles in Series, 70 °C 70 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) 22 kW
- (415 V) 30 kW
- (440 V) 30 kW
- (500 V) 30 kW
- (690 V) 30 kW
- (380 / 400 V) 22 kW

	(220 / 230 / 240 V) 15 kW
Rated Operational Power AC-3e (P _e)	(415 V) 30 kW (440 V) 30 kW (500 V) 30 kW (690 V) 30 kW (380 / 400 V) 22 kW (220 / 230 / 240 V) 15 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 24 ... 60 V 60 Hz 24 ... 60 V DC Operation 20 ... 60 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 6.3 W at Rated Operating Conditions AC-3 per Pole 1.7 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	
Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 80 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 3 hp (200 ... 208 V AC) Three Phase 15 hp (220 ... 240 V AC) Three Phase 20 hp (240 V AC) Single Phase 10 hp (440 ... 480 V AC) Three Phase 40 hp (550 ... 600 V AC) Three Phase 50 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 48.3 A (220 ... 240 V AC) Three Phase 54 A (240 V AC) Single Phase 50 A (440 ... 480 V AC) Three Phase 52 A (550 ... 600 V AC) Three Phase 52 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
Simplified SCIP	027f8bbf-644d-4abe-927e-a51f908bd600 Portugal

11aa1b2c-b2d6-4d5a-a348-3b068b2a0584 Belgium	
288eadd0-d1a5-4e35-bd69-07172b46f815 Spain	
3087a4a2-ccd7-4578-b5b0-20809bf8f30d Netherlands	
3f2078b3-1d07-428c-b18a-87198878cd51 Sweden	
473ecf05-35cb-4532-9122-091b3e9d57c1 Czech Republic	
61282de7-3158-47b1-888c-2c6044b405a0 France	
6a1b7c57-7aa5-41c4-aa2b-a3ff1cbbc101 Estonia	
793cf538-df6b-4e3f-a931-9204e26b9b47 Hungary	
8f44626e-9135-418e-bdb4-032c5af0134b Poland	
9c037765-ca95-43cc-aaa2-1e03a492a90c Germany	
cb7e1b44-dec7-4e94-9a5a-624aa2207f7a Greece	
dd7e091c-61c8-43d0-8b5c-430b874d1442 Bulgaria	
dfedab25-ac50-4837-9e0a-a530def63d5a Denmark	
ea15f30a-a261-47b7-8842-6bd503b80b44 Croatia	
f0dc24bc-1249-42d2-95e5-c9b77d1a4bdd Norway	
f7fda941-8104-410a-98ab-8cedbb1e0852 Finland	
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_2634H36994A
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_HW02016-15010C
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	1.11 kg
Package Level 1 EAN	3471523132412
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	11.1 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 >> Iec Contactors
E-Number (Finland)	3707019

Categories
Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF52



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