



PRODUCT-DETAILS

AF65-30-11-11

AF65-30-11-11 24-60V50/60HZ 20-60VDC

Contactactor



General Information	
Extended Product Type	AF65-30-11-11
Product ID	1SBL387001R1111
EAN	3471523132719
Catalog Description	AF65-30-11-11 24-60V50/60HZ 20-60VDC Contactactor
Long Description	The AF65-30-11-11 is a 3 pole - 690 V IEC or 600 UL contactor with pre-mounted auxiliary contacts and screw terminals, controlling motors up to 30 kW / 400 V AC (AC-3) or 50 hp / 480 V UL and switching power circuits up to 105 A (AC-1) or 90 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	9AAC175974_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 $\Theta = 40\text{ }^{\circ}\text{C}$ 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 105 A (690 V) 60 °C 90 A (690 V) 70 °C 80 A
Rated Operational Current AC-3 (I _e)	(415 V) 60 °C 65 A (440 V) 60 °C 65 A (500 V) 60 °C 55 A (690 V) 60 °C 39 A (380 / 400 V) 60 °C 65 A (220 / 230 / 240 V) 60 °C 65 A
Rated Operational Current AC-3e (I _e)	(415 V) 60 °C 65 A (440 V) 60 °C 65 A (500 V) 60 °C 55 A (690 V) 60 °C 39 A (380 / 400 V) 60 °C 65 A (220 / 230 / 240 V) 60 °C 65 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 105 A
- (110 V) 2 Poles in Series, 60 °C 90 A
- (110 V) 2 Poles in Series, 70 °C 80 A
- (110 V) 3 Poles in Series, 40 °C 105 A
- (110 V) 3 Poles in Series, 60 °C 90 A
- (110 V) 3 Poles in Series, 70 °C 80 A
- (220 V) 3 Poles in Series, 40 °C 105 A
- (220 V) 3 Poles in Series, 60 °C 90 A
- (220 V) 3 Poles in Series, 70 °C 80 A
- (72 V) 1-Pole, 40 °C 105 A
- (72 V) 1-Pole, 60 °C 90 A
- (72 V) 1-Pole, 70 °C 80 A
- (72 V) 2 Poles in Series, 40 °C 105 A
- (72 V) 2 Poles in Series, 60 °C 90 A
- (72 V) 2 Poles in Series, 70 °C 80 A
- (72 V) 3 Poles in Series, 40 °C 105 A
- (72 V) 3 Poles in Series, 60 °C 90 A
- (72 V) 3 Poles in Series, 70 °C 80 A

Rated Operational
Current DC-3 (I_e)

- (110 V) 2 Poles in Series, 40 °C 105 A
- (110 V) 2 Poles in Series, 60 °C 90 A
- (110 V) 2 Poles in Series, 70 °C 80 A
- (110 V) 3 Poles in Series, 40 °C 105 A
- (110 V) 3 Poles in Series, 60 °C 90 A
- (110 V) 3 Poles in Series, 70 °C 80 A
- (220 V) 3 Poles in Series, 40 °C 105 A
- (220 V) 3 Poles in Series, 60 °C 90 A
- (220 V) 3 Poles in Series, 70 °C 80 A
- (72 V) 1-Pole, 40 °C 105 A
- (72 V) 1-Pole, 60 °C 90 A
- (72 V) 1-Pole, 70 °C 80 A
- (72 V) 2 Poles in Series, 40 °C 105 A
- (72 V) 2 Poles in Series, 60 °C 90 A
- (72 V) 2 Poles in Series, 70 °C 80 A
- (72 V) 3 Poles in Series, 40 °C 105 A
- (72 V) 3 Poles in Series, 60 °C 90 A
- (72 V) 3 Poles in Series, 70 °C 80 A

Rated Operational
Current DC-5 (I_e)

- (110 V) 2 Poles in Series, 40 °C 105 A
- (110 V) 2 Poles in Series, 60 °C 90 A
- (110 V) 2 Poles in Series, 70 °C 80 A
- (110 V) 3 Poles in Series, 40 °C 105 A
- (110 V) 3 Poles in Series, 60 °C 90 A
- (110 V) 3 Poles in Series, 70 °C 80 A
- (220 V) 3 Poles in Series, 40 °C 105 A
- (220 V) 3 Poles in Series, 60 °C 90 A
- (220 V) 3 Poles in Series, 70 °C 80 A
- (72 V) 1-Pole, 40 °C 105 A
- (72 V) 1-Pole, 60 °C 90 A
- (72 V) 1-Pole, 70 °C 80 A
- (72 V) 2 Poles in Series, 40 °C 105 A
- (72 V) 2 Poles in Series, 60 °C 90 A
- (72 V) 2 Poles in Series, 70 °C 80 A
- (72 V) 3 Poles in Series, 40 °C 105 A
- (72 V) 3 Poles in Series, 60 °C 90 A
- (72 V) 3 Poles in Series, 70 °C 80 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) 30 kW
- (415 V) 37 kW
- (440 V) 37 kW
- (500 V) 37 kW
- (690 V) 37 kW
- (380 / 400 V) 30 kW

	(220 / 230 / 240 V) 18.5 kW
Rated Operational Power AC-3e (P _e)	(415 V) 37 kW (440 V) 37 kW (500 V) 37 kW (690 V) 37 kW (380 / 400 V) 30 kW (220 / 230 / 240 V) 18.5 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 7 W at Rated Operating Conditions AC-3 per Pole 2.7 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) 90 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 5 hp (200 ... 208 V AC) Three Phase 20 hp (220 ... 240 V AC) Three Phase 25 hp (240 V AC) Single Phase 15 hp (440 ... 480 V AC) Three Phase 50 hp (550 ... 600 V AC) Three Phase 60 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 56 A (200 ... 208 V AC) Three Phase 62.1 A (220 ... 240 V AC) Three Phase 68 A (240 V AC) Single Phase 68 A (440 ... 480 V AC) Three Phase 65 A (550 ... 600 V AC) Three Phase 62 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	d9555361-1018-40d6-8cb6-e7f85987becf France

Simplified SCIP

	dd548c6c-8a3f-4476-90e3-f9f83be0033b Germany 31e74b10-7e43-4a14-bef4-ba0a183e22e6 Poland 7f89b93f-0ece-483b-b26c-81e41e5c53ea Norway 924eba1e-bc3f-4014-b04c-f29972c71585 Germany 5359db27-b2ad-4000-823a-b636cf3b6231 Poland d528f1da-4f9e-4d07-904c-9f15fbe5a5d5 Netherlands 2819f27d-e610-4db5-a32b-e2bd4334e7bd Hungary f37ef345-30aa-49ef-9598-66cefb0dd647 Estonia 4213a7e1-e3d7-4a64-9a3e-1d2a59f04706 Italy 0e54bdeb-83e9-4b3b-a93f-7d1c4b59b1db Denmark 1bcf7450-2b2e-4b5b-be66-433f7a943ca9 Germany df94d61c-6fa2-4c2a-989d-38f1adb140f3 Croatia 8897530c-0c09-4f97-84e3-923277a4b557 Czech Republic 4ab3341d-b66c-44b1-9761-4127f45effdc Bulgaria fd24c700-2cfa-47ab-8024-a29d13452d92 Sweden cd46be2d-d45a-4abc-b1a9-db0cdae0eee8 Poland cadd27a0-1b24-4ead-8be5-861fc09ac579 France 1fdf8b88-59ca-4d2f-b310-602c0b989fec Sweden c8dff54d-4c97-4b68-b235-a29e3104acfb Germany bbff211e-c9fb-4a99-8ac6-ad91769868d2 Germany 27919ef0-8e9e-4279-9711-a13b1e8355ba Hungary 2f698bde-c79c-4be4-ace3-e3eaad848aa5 Greece d06b297f-54e4-4c14-8db5-a20a39f42802 Portugal 075167b1-d405-4e52-85d6-e10c2049cc96 Spain 4e75e7cc-35f7-4d0d-9e96-fcdc69c42f71 Belgium 4222f957-ffd0-4155-9060-dee2baf2a32d Finland 9a9750a6-82af-4bee-8f7f-eaed4f33f23d Belgium
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_HW02016-15003C
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	3471523132719
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 >> lec Contactors
E-Number (Finland)	3707062

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF65
Drives → Services → Spares and Consumables → Parts

