



PRODUCT-DETAILS

AF65-30-00-12
AF65-30-00-12 48-130V50/60HZ-DC
Contactors



General Information	
Extended Product Type	AF65-30-00-12
Product ID	1SBL387001R1200
EAN	3471523132627
Catalog Description	AF65-30-00-12 48-130V50/60HZ-DC Contactors
Long Description	The AF65-30-00-12 is a 3 pole - 690 V IEC or 600 UL contactor with 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 (48-130 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

Popular Downloads

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

Dimensions

Product Net Width	55 mm
Product Net Depth / Length	111 mm
Product Net Height	125.5 mm
Product Net Weight	0.97 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 60947-1, 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	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 Θ = 40 °C 105 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 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 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
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 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 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 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 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 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 16 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 IP10
Recommended Screw Driver	Pozidriv PZ
Tightening Torque	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	Control Circuit 11 in-lb

UL/CSA	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 Information	2CMT2021-006277
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
SCIP	3fec47c1-c65d-4305-9c2e-7df042a1cddc China
Simplified SCIP	75ebf583-bced-418c-a7f7-418cf0b176cd Croatia 92b1b900-6889-4556-870d-e840c5c7ddc3 Czech Republic c6696631-ee4d-4b23-941c-f72289397078 Poland 14f7f3bb-3e2e-45a9-8265-1b3e7cfc71fb Germany 60ca3568-0d88-49a3-bc26-f1addf655b9d Belgium d8e9cb6c-5b25-487a-980a-96f6ccd14b48 Denmark 45d93a48-14aa-491a-bab7-ca938aa458df Sweden 21a23aed-a8bc-4efd-b0de-f9f4d9a6d89c France b532e39a-d001-4747-a9e5-f51ae9eb6b9f Poland 02c35782-57c1-4092-bb10-16e2647cc2f8 Germany f17ed004-abba-409b-a805-15157aa55e3a Germany bc1ad85e-d612-47e6-97e2-5de4b0fa54be Sweden c92a120b-91ae-4036-a235-6fe1cdaa62ab France 8c38c27a-ad0d-417a-9d95-acad06fa6062 Germany ac1e48ae-9d93-463a-93d6-ddcba42a4a00 Spain 0293f116-3a57-479f-9fa2-8c8d8487a6fb Belgium 56cd4198-8e96-4f6d-97de-c408253f9825 Portugal 44049422-87ff-4bac-bd16-be9d1b535380 Germany bcc1f3eb-a8a8-44a8-b43f-1899bcaf6d00 Greece b1bfb508-b884-456c-a369-ae91028a4c67 Bulgaria b97cfb2f-06b1-4231-94dd-ebc2b2e51de3 Hungary 8042fc92-672d-4056-b2ee-c30c715d04df Norway 11871a04-5b59-4c36-857a-37307ce804cb Netherlands 3d6e31e2-8770-4907-9552-191b765cbc0f Poland 5ac7a695-f072-44eb-a881-5471b74ec908 Finland d223af47-6a31-49a2-96e0-bdb74606c444 Estonia a4b16553-4a18-4d45-b271-0f89e979bae1 Hungary
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
End Of Life	1SBC101081M6801
Disassembling	
Instructions	
Environmental Product Declaration - EPD	2TFP200016A1001 1SBD250584E1000
Sustainable Material Content in Packaging (wt. %)	FSC Recycled Paper - 94.6 %
Sustainable Material Content in Product (wt. %)	Recycled Metal - 28.2 %

Certificates and Declarations

A2L Certificate – UL	9AKK108469A4890 9AKK108469A4892
ABS Certificate	ABS_20-2060694-PDA
BV Certificate	BV_2634H36994B1
CB Certificate	CB_SE-113324M1
CCC Certificate	CQC2015010304824714
CQC Certificate	CQC2015010304824714 CQC2012010304589737
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-L312527-1141-10303102-9 UL-CA-L312527-4141-10303102-9
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	1.07 kg
Package Level 1 EAN	3471523132627
Package Level 2 Units	box 10 piece
Package Level 2 Width	250 mm
Package Level 2 Depth /	300 mm

Length	
Package Level 2 Height	300 mm
Package Level 2 Gross Weight	10.7 kg
Package Level 3 Units	240 piece

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)	3707047	
E-Number (Sweden)	3210043	

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF65

