



PRODUCT-DETAILS

AF96-30-00-14
AF96-30-00-14 250-500V50/60HZ-DC
Contactor



General Information	
Extended Product Type	AF96-30-00-14
Product ID	1SBL407001R1400
EAN	3471523133242
Catalog Description	AF96-30-00-14 250-500V50/60HZ-DC Contactor
Long Description	The AF96-30-00-14 is a 3 pole - 1000 V IEC or 600 UL contactor with screw terminals, controlling motors up to 45 kW / 400 V AC (AC-3) or 60 hp / 480 V UL and switching power circuits up to 130 A (AC-1) or 115 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (250-500 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	9AAC175976_EPLAN
Data Sheet, Technical Information	1SBC100214C0202
Instructions and Manuals	1SBC101036M6801
Instructions and Manuals (Part 2)	1SAC200017M0002
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	70 mm
Product Net Depth / Length	116 mm
Product Net Height	125.5 mm
Product Net Weight	1.17 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 1000 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 $\Theta = 40\text{ °C}$ 130 A
Rated Operational Current AC-1 (I_e)	(690 V) 40 °C 130 A (690 V) 60 °C 105 A (690 V) 70 °C 90 A
Rated Operational Current AC-3 (I_e)	(415 V) 60 °C 96 A (440 V) 60 °C 96 A (500 V) 60 °C 80 A (690 V) 60 °C 57 A (1000 V) 60 °C 30 A (380 / 400 V) 60 °C 105 A (220 / 230 / 240 V) 60 °C 105 A
Rated Operational Current AC-3e (I_e)	(415 V) 60 °C 96 A (440 V) 60 °C 96 A (500 V) 60 °C 80 A (690 V) 60 °C 57 A (380 / 400 V) 60 °C 105 A (220 / 230 / 240 V) 60 °C 105 A
Rated Operational Current DC-1 (I_e)	(110 V) 2 Poles in Series, 40 °C 130 A (110 V) 2 Poles in Series, 60 °C 105 A (110 V) 2 Poles in Series, 70 °C 90 A (110 V) 3 Poles in Series, 40 °C 130 A (110 V) 3 Poles in Series, 60 °C 105 A

	(110 V) 3 Poles in Series, 70 °C 90 A (220 V) 3 Poles in Series, 40 °C 125 A (220 V) 3 Poles in Series, 60 °C 105 A (220 V) 3 Poles in Series, 70 °C 90 A (72 V) 1-Pole, 40 °C 130 A (72 V) 1-Pole, 60 °C 105 A (72 V) 1-Pole, 70 °C 90 A (72 V) 2 Poles in Series, 40 °C 130 A (72 V) 2 Poles in Series, 60 °C 105 A (72 V) 2 Poles in Series, 70 °C 90 A (72 V) 3 Poles in Series, 40 °C 130 A (72 V) 3 Poles in Series, 60 °C 105 A (72 V) 3 Poles in Series, 70 °C 90 A
Rated Operational Current DC-3 (I _e)	(110 V) 2 Poles in Series, 40 °C 130 A (110 V) 2 Poles in Series, 60 °C 105 A (110 V) 2 Poles in Series, 70 °C 90 A (110 V) 3 Poles in Series, 40 °C 130 A (110 V) 3 Poles in Series, 60 °C 105 A (110 V) 3 Poles in Series, 70 °C 90 A (220 V) 3 Poles in Series, 40 °C 130 A (220 V) 3 Poles in Series, 60 °C 105 A (220 V) 3 Poles in Series, 70 °C 90 A (72 V) 1-Pole, 40 °C 130 A (72 V) 1-Pole, 60 °C 105 A (72 V) 1-Pole, 70 °C 90 A (72 V) 2 Poles in Series, 40 °C 130 A (72 V) 2 Poles in Series, 60 °C 105 A (72 V) 2 Poles in Series, 70 °C 90 A (72 V) 3 Poles in Series, 40 °C 130 A (72 V) 3 Poles in Series, 60 °C 105 A (72 V) 3 Poles in Series, 70 °C 90 A
Rated Operational Current DC-5 (I _e)	(110 V) 2 Poles in Series, 40 °C 130 A (110 V) 2 Poles in Series, 60 °C 105 A (110 V) 2 Poles in Series, 70 °C 90 A (110 V) 3 Poles in Series, 40 °C 130 A (110 V) 3 Poles in Series, 60 °C 105 A (110 V) 3 Poles in Series, 70 °C 90 A (220 V) 3 Poles in Series, 40 °C 130 A (220 V) 3 Poles in Series, 60 °C 105 A (220 V) 3 Poles in Series, 70 °C 90 A (72 V) 1-Pole, 40 °C 130 A (72 V) 1-Pole, 60 °C 105 A (72 V) 1-Pole, 70 °C 90 A (72 V) 2 Poles in Series, 40 °C 130 A (72 V) 2 Poles in Series, 60 °C 105 A (72 V) 2 Poles in Series, 70 °C 90 A (72 V) 3 Poles in Series, 40 °C 130 A (72 V) 3 Poles in Series, 60 °C 105 A (72 V) 3 Poles in Series, 70 °C 90 A
Rated Operational Power AC-3 (P _e)	(415 V) 55 kW (440 V) 55 kW (500 V) 55 kW (690 V) 55 kW (1000 V) 40 kW (380 / 400 V) 45 kW (380 / 400 V) 55 kW (220 / 230 / 240 V) 25 kW (220 / 230 / 240 V) 30 kW
Rated Operational Power AC-3e (P _e)	(415 V) 55 kW (440 V) 55 kW (500 V) 55 kW (690 V) 55 kW (380 / 400 V) 45 kW (380 / 400 V) 55 kW (220 / 230 / 240 V) 25 kW (220 / 230 / 240 V) 30 kW
Rated Short-time Withstand Current Low Voltage (I _{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 840 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	
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 UL/CSA 600 V	
Rated Impulse Withstand Voltage (U _{imp})	8 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 250 ... 500 V 60 Hz 250 ... 500 V DC Operation 250 ... 500 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 8.2 W at Rated Operating Conditions AC-3 per Pole 4.5 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 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 17 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	Poqidriv PZ	
Tightening Torque	Control Circuit 1.2 N-m Main Circuit 6 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) 115 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 7-1/2 hp (200 ... 208 V AC) Three Phase 30 hp (220 ... 240 V AC) Three Phase 40 hp (240 V AC) Single Phase 20 hp (440 ... 480 V AC) Three Phase 75 hp (550 ... 600 V AC) Three Phase 75 hp

Connecting Capacity Main Circuit UL/CSA	Rigid Stranded 1/2x 6-1 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	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 92 A (220 ... 240 V AC) Three Phase 80 A (240 V AC) Single Phase 88 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 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	c4877b1a-61b0-4035-af81-19b0d032e421 France
Simplified SCIP	5d7edeba-2b1c-46ec-bfa9-27d25c2c8e7f Poland 5f74e085-165b-42cd-ab44-8ea845d5c2f7 Netherlands 8db503e9-559a-4265-892d-054efcdedec1 Sweden 515736cf-d872-4e7d-89a3-83be6815bdf2 Poland 4ecd0f72-605e-4fd0-b93c-a8579826a6d1 France d3689385-4747-4921-8eba-5595c55381b0 Sweden ccbc359e-c1d3-407e-bbe7-14f84cfa6fb2 Germany 564b7429-d6d1-48ec-9572-b7fdf5d73ad6 Germany 73d4dfcd-c46c-4a00-9e2f-25b3c8e1a51b Hungary d84df9fc-68f4-4b35-bd3f-45faa6f3696b Spain 0b11bef2-0985-4731-ad77-c7a59564e4e3 Belgium e7066cfa-017c-4709-bb73-edd2f254eca3 Czech Republic 33bf5972-7c54-4da5-83cb-b137cb8796b8 Croatia 02b5e63a-e63a-429e-978a-bfce7b95ff75 Germany 3d403a80-6227-4398-b452-9b9ddc58a466 Denmark b798b11c-6af6-4bdd-bb6b-281c5b7f7f43 Germany 1f7b6afe-a85e-411e-8fb5-78b356681643 Italy 09b352a8-9482-476c-8ff6-3bf9358b7512 Germany c79e3fcd-ca9a-4387-9cd9-738874827ca1 Norway 2fd26b13-a070-4d48-b404-52e6cf2c2971 Finland e070fbbbe-084e-4d98-8ba7-363823bd1f08 Belgium 031b0076-64ef-49ad-beca-3a4b27bfb9a2 Bulgaria 1fc6aa7a-fea6-422a-99de-cd6ad162d34c Poland ef0a90d2-ea3f-4a65-813e-6b91027d60ef Hungary

e3899935-fc17-4ff1-9d6a-d98d21124e40 Estonia fe142014-b10c-4c8a-a9e4-fc744649db22 Greece 7b855ad7-2124-4f79-bcec-12acf889ffef Portugal	
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	1.29 kg

Package Level 1 EAN	3471523133242
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	10.32 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)	3707138
E-Number (Sweden)	3210058

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF96

