



PRODUCT-DETAILS

AF30-30-00-14

AF30-30-00-14 250-500V50/60HZ-DC Contactor



General Information	
Extended Product Type	AF30-30-00-14
Product ID	1SBL277001R1400
EAN	3471523111240
Catalog Description	AF30-30-00-14 250-500V50/60HZ-DC Contactor
Long Description	The AF30-30-00-14 is a 3 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 15 kW / 400 V AC (AC-3) or 20 hp / 480 V UL and switching power circuits up to 50 A (AC-1) or 50 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	9AAC159660_EPLAN
Data Sheet, Technical Information	1SBC100214C0202
Instructions and Manuals	1SBC101027M6801
Instructions and Manuals (Part 2)	1SAC200017M0002
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	45 mm
Product Net Depth / Length	86 mm
Product Net Height	86 mm
Product Net Weight	0.35 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 60947-4-1, CSA C22.2 No. 60335-2-40 LZGH2 A2L, CSA C22.2 No. 60947-4-1
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 $\Theta = 40^\circ\text{C}$ 50 A
Rated Operational Current AC-1 (I_e)	(690 V) 40 °C 50 A (690 V) 60 °C 42 A (690 V) 70 °C 37 A
Rated Operational Current AC-3 (I_e)	(415 V) 60 °C 32 A (440 V) 60 °C 32 A (500 V) 60 °C 28 A (690 V) 60 °C 21 A (380 / 400 V) 60 °C 32 A (220 / 230 / 240 V) 60 °C 33 A
Rated Operational Current AC-3e (I_e)	(415 V) 60 °C 32 A (440 V) 60 °C 32 A (500 V) 60 °C 28 A (690 V) 60 °C 21 A (380 / 400 V) 60 °C 32 A (220 / 230 / 240 V) 60 °C 33 A
Rated Operational Current DC-1 (I_e)	(110 V) 2 Poles in Series, 40 °C 50 A (110 V) 2 Poles in Series, 60 °C 42 A (110 V) 2 Poles in Series, 70 °C 37 A (110 V) 3 Poles in Series, 40 °C 50 A (110 V) 3 Poles in Series, 60 °C 42 A (110 V) 3 Poles in Series, 70 °C 37 A (220 V) 3 Poles in Series, 40 °C 50 A (220 V) 3 Poles in Series, 60 °C 42 A (220 V) 3 Poles in Series, 70 °C 37 A (72 V) 1-Pole, 40 °C 50 A (72 V) 1-Pole, 60 °C 42 A (72 V) 1-Pole, 70 °C 37 A (72 V) 2 Poles in Series, 40 °C 50 A (72 V) 2 Poles in Series, 60 °C 42 A (72 V) 2 Poles in Series, 70 °C 37 A (72 V) 3 Poles in Series, 40 °C 50 A (72 V) 3 Poles in Series, 60 °C 42 A (72 V) 3 Poles in Series, 70 °C 37 A

Rated Operational Current
DC-3 (I_e)

(110 V) 2 Poles in Series, 40 °C 50 A
(110 V) 2 Poles in Series, 60 °C 42 A
(110 V) 2 Poles in Series, 70 °C 37 A
(110 V) 3 Poles in Series, 40 °C 50 A
(110 V) 3 Poles in Series, 60 °C 42 A
(110 V) 3 Poles in Series, 70 °C 37 A
(220 V) 3 Poles in Series, 40 °C 50 A
(220 V) 3 Poles in Series, 60 °C 42 A
(220 V) 3 Poles in Series, 70 °C 37 A
(72 V) 1-Pole, 40 °C 50 A
(72 V) 1-Pole, 60 °C 42 A
(72 V) 1-Pole, 70 °C 37 A
(72 V) 2 Poles in Series, 40 °C 50 A
(72 V) 2 Poles in Series, 60 °C 42 A
(72 V) 2 Poles in Series, 70 °C 37 A
(72 V) 3 Poles in Series, 40 °C 50 A
(72 V) 3 Poles in Series, 60 °C 42 A
(72 V) 3 Poles in Series, 70 °C 37 A

Rated Operational Current
DC-5 (I_e)

(110 V) 2 Poles in Series, 40 °C 50 A
(110 V) 2 Poles in Series, 60 °C 42 A
(110 V) 2 Poles in Series, 70 °C 37 A
(110 V) 3 Poles in Series, 40 °C 50 A
(110 V) 3 Poles in Series, 60 °C 42 A
(110 V) 3 Poles in Series, 70 °C 37 A
(220 V) 3 Poles in Series, 40 °C 25 A
(220 V) 3 Poles in Series, 60 °C 25 A
(220 V) 3 Poles in Series, 70 °C 25 A
(72 V) 1-Pole, 40 °C 25 A
(72 V) 1-Pole, 60 °C 25 A
(72 V) 1-Pole, 70 °C 25 A
(72 V) 2 Poles in Series, 40 °C 50 A
(72 V) 2 Poles in Series, 60 °C 42 A
(72 V) 2 Poles in Series, 70 °C 37 A
(72 V) 3 Poles in Series, 40 °C 50 A
(72 V) 3 Poles in Series, 60 °C 42 A
(72 V) 3 Poles in Series, 70 °C 37 A

Rated Operational Power
AC-3 (P_e)

(400 V) 15 kW
(415 V) 15 kW
(440 V) 18.5 kW
(500 V) 18.5 kW
(690 V) 18.5 kW
(380 / 400 V) 15 kW
(220 / 230 / 240 V) 9 kW

Rated Operational Power
AC-3e (P_e)

(415 V) 15 kW
(440 V) 18.5 kW
(500 V) 18.5 kW
(690 V) 18.5 kW
(380 / 400 V) 15 kW
(220 / 230 / 240 V) 9 kW

Rated Short-time
Withstand Current Low
Voltage (I_{cw})

at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 350 A
at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 50 A
at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 150 A
at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 700 A
at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 225 A

Maximum Breaking
Capacity

cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 500 A
cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 200 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 250 ... 500 V
60 Hz 250 ... 500 V
DC Operation 250 ... 500 V

Power Loss

at Rated Operating Conditions AC-1 per Pole 2.4 W
at Rated Operating Conditions AC-3 per Pole 0.9 W

Operate Time

Between Coil De-energization and NC Contact Closing 13 ... 98 ms
Between Coil De-energization and NO Contact Opening 11 ... 95 ms
Between Coil Energization and NC Contact Opening 38 ... 90 ms
Between Coil Energization and NO Contact Closing 40 ... 95 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 screws placed diagonally
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 1.5 ... 10 mm ² Flexible with Insulated Ferrule 1x 1.5 ... 10 mm ² Flexible with Insulated Ferrule 2x 1.5 ... 4 mm ² Rigid Solid 1/2x 2.5 ... 4 mm ² Rigid Stranded 1/2x 2.5 ... 10 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 14 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 IP20
Tightening Torque	Control Circuit 1.2 N·m Main Circuit 2.5 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) 50 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 2 hp (200 ... 208 V AC) Three Phase 10 hp (220 ... 240 V AC) Three Phase 10 hp (240 V AC) Single Phase 5 hp (440 ... 480 V AC) Three Phase 20 hp (550 ... 600 V AC) Three Phase 25 hp
Connecting Capacity Main Circuit UL/CSA	Rigid Solid 1/2x 14-10 AWG Rigid Stranded 1/2x 14-8 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 22 in·lb
Full Load Amps Motor Use	(120 V AC) Single Phase 24 A (200 ... 208 V AC) Three Phase 32.2 A (220 ... 240 V AC) Three Phase 28 A (240 V AC) Single Phase 28 A (440 ... 480 V AC) Three Phase 27 A (550 ... 600 V AC) Three Phase 27 A

Environmental

Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay -25 ... 60 °C Close to Contactor without Thermal O/L Relay -40 ... 70 °C Close to Contactor for Storage -60 ... +80 °C
Climatic Withstand	acc. to IEC 60068-2-30 and 60068-2-11 - UTE C 63-100 specification II
Maximum Operating Altitude Permissible	Without Derating 3000 m
Resistance to Shock acc. to IEC 60068-2-27	Closed, Shock Direction: B1 25 g Open, Shock Direction: B1 5 g Shock Direction: A 30 g Shock Direction: B2 15 g Shock Direction: C1 25 g Shock Direction: C2 25 g
Resistance to Vibrations	4g Closed Position & 2g 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	61477bf2-c463-4050-b5e1-5a540c63b52b China
Simplified SCIP	363a1d88-fcc0-430f-bd86-2f275e16f966 Finland c218d25d-50e0-4f12-9aed-22dcb8f45f4 Belgium 22a8e4cc-204c-4043-9e72-c123e0403ceb Norway d2120623-99b1-46bc-b191-9d8c18136b12 Poland 20a5ee26-1826-4d75-bb1a-8fa47707b245 Spain 65aa5dbf-c83c-4c4c-aff6-ceec3ffb5073 Germany 3f86b7a1-5cb0-4370-a97a-349fe3a2b56f Czech Republic cd4c4db0-ac1d-4950-bb16-fa4f35fe43ee Croatia e9a5a48a-18f6-43bf-b1c0-5f280b226405 Denmark c5df756d-2c6c-4e3d-ba71-b7277fec1319 Germany 32e26db1-13ce-4a9b-93fd-9c36acde46a3 Germany 956e0780-96c7-47b5-a6c9-2bb9337e8a34 Poland 27a1a2a5-abdc-4d80-a424-91134df648ad Hungary 9a689f59-18b2-4cf9-b379-a4ecf7602e4 Greece e66d4981-5176-478a-94b3-a6005bb80ff2 Estonia 6b403f91-a07c-4e26-a9e9-3636b56ad8e2 Netherlands 4809203d-4038-4968-87c7-5be669130e13 Germany 31d65ada-d151-4b8a-b8e2-f5ea9ffec81d Portugal 9cff0a2b-7e3c-4f73-bfd1-c4ac01c28f3c Bulgaria 9b31cbad-a0b5-4e2f-ba20-b59010d11b82 Poland 778c32b3-2db6-4472-ac15-d6c5ff87c4bf France aec0f2d4-7d77-4b17-ba18-935d739b6253 Sweden 3a6aeb5d-e273-45fb-bcb4-be02a262cbd7 Belgium df83b9e2-8705-49e0-ba6e-b2f81a511b89 France 9b277d18-3a8b-478d-baa6-33f63bb4ea3c Hungary e0fb86b5-47b3-4459-9cbd-ef66c0fb3bdb Sweden d01ffed6-0c56-4e7a-852f-02adbd14898 Germany
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

End Of Life Disassembling Instructions	1SBC101080M6801
Environmental Product Declaration - EPD	1SBD250584E4000 2TFP200036A1001
Sustainable Material Content in Packaging (wt. %)	Recycled Cardboard - 86 %
Sustainable Material Content in Product (wt. %)	Recycled Metal - 28 %

Certificates and Declarations

A2L Certificate - UL	9AKK108469A4875 9AKK108469A4879
ABS Certificate	ABS_20-2060694-PDA
BV Certificate	BV_2634H24898C0
CB Certificate	CB_SE-112316
CCC Certificate	CCC_2010010304445623
CQC Certificate	CQC2010010304445623 CQC2020010304294316
Declaration of Conformity - CCC	2020980304001254 2020980304001052
Declaration of Conformity - CE	1SBD250000U1000
Declaration of Conformity - UKCA	1SBD250031U1000
DNV Certificate	DNV_TAE00001AF-4

GOST Certificate	GOST_POCCFR.ME77.B07175.pdf
KC Certificate	KC_HW02016-15001C
LR Certificate	LRS_LR23403517TA-02
RINA Certificate	RINA_ELE142224XG
RMRS Certificate	RMRS_1802705280
UL Certificate	UL-US-2150887-5 UL-CA-2142658-5
UL Listing Card	E312527

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	87 mm
Package Level 1 Depth / Length	87 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.35 kg
Package Level 1 EAN	3471523111240
Package Level 2 Units	box 21 piece
Package Level 2 Width	250 mm
Package Level 2 Depth / Length	300 mm
Package Level 2 Height	315 mm
Package Level 2 Gross Weight	15.75 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)	3706286
E-Number (Sweden)	3211383

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF30

