



 PRODUCT-DETAILS

AF40-30-00-13

AF40-30-00-13 100-250V50/60HZ-DC Contactor



General Information

Extended Product Type:	AF40-30-00-13
Product ID:	1SBL347001R1300
EAN:	3471523132030
Catalog Description:	AF40-30-00-13 100-250V50/60HZ-DC Contactor
Long Description:	The AF40-30-00-13 is a 3 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 18.5 kW / 400 V AC (AC-3) or 30 hp / 480 V UL and switching power circuits up to 70 A (AC-1) or 60 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (100-250 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.
Display Name:	AF40-30-00-13

Ordering

Minimum Order Quantity:	1 piece
--------------------------------	---------

Customs Tariff Number: 85364900

Popular Downloads

EPLAN Data:	9AAC175972_EPLAN
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:	0.95 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 $\Theta = 40\text{ }^{\circ}\text{C}$ 105 A):	
Rated Operational Current AC-1 (I_e):	(690 V) 40 $^{\circ}\text{C}$ 70 A (690 V) 60 $^{\circ}\text{C}$ 60 A (690 V) 70 $^{\circ}\text{C}$ 50 A
Rated Operational Current AC-3 (I_e):	(415 V) 60 $^{\circ}\text{C}$ 40 A (440 V) 60 $^{\circ}\text{C}$ 40 A (500 V) 60 $^{\circ}\text{C}$ 35 A (690 V) 60 $^{\circ}\text{C}$ 25 A (380 / 400 V) 60 $^{\circ}\text{C}$ 40 A (220 / 230 / 240 V) 60 $^{\circ}\text{C}$ 40 A
Rated Operational Current AC-3e (I_e):	(415 V) 60 $^{\circ}\text{C}$ 40 A (440 V) 60 $^{\circ}\text{C}$ 40 A (500 V) 60 $^{\circ}\text{C}$ 35 A (690 V) 60 $^{\circ}\text{C}$ 25 A (380 / 400 V) 60 $^{\circ}\text{C}$ 40 A (220 / 230 / 240 V) 60 $^{\circ}\text{C}$ 40 A

Rated Operational Current DC-1 (I_e):

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

Rated Operational Current DC-3 (I_e):

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

Rated Operational Current DC-5 (I_e):

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

Rated Operational Power AC-3 (P_e):

- (400 V) 18.5 kW
- (415 V) 22 kW
- (440 V) 22 kW
- (500 V) 22 kW
- (690 V) 22 kW
- (380 / 400 V) 18.5 kW
- (220 / 230 / 240 V) 11 kW

Rated Operational Power AC-3e (P_e):

- (415 V) 22 kW
- (440 V) 22 kW
- (500 V) 22 kW
- (690 V) 22 kW
- (380 / 400 V) 18.5 kW
- (220 / 230 / 240 V) 11 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 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 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 3 W at Rated Operating Conditions AC-3 per Pole 1 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

NEMA Size:	2
Continuous Current Rating NEMA:	45 A

Horsepower Rating NEMA:	(115 V AC) Single Phase 3 Hp (200 V AC) Three Phase 10 Hp (230 V AC) Single Phase 7-1/2 Hp (230 V AC) Three Phase 15 Hp (460 V AC) Three Phase 25 Hp (575 V AC) Three Phase 25 Hp
Maximum Operating Voltage UL/CSA:	Main Circuit 600 V
General Use Rating UL/CSA:	(600 V AC) 60 A
Horsepower Rating UL/CSA:	(120 V AC) Single Phase 3 hp (200 ... 208 V AC) Three Phase 10 hp (220 ... 240 V AC) Three Phase 15 hp (240 V AC) Single Phase 7-1/2 hp (440 ... 480 V AC) Three Phase 30 hp (550 ... 600 V AC) Three Phase 40 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:	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 32.2 A (220 ... 240 V AC) Three Phase 42 A (240 V AC) Single Phase 40 A (440 ... 480 V AC) Three Phase 41 A (550 ... 600 V AC) Three Phase 40 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:	32002722-9adc-4d60-b9d4-fa0b8941454b France

Simplified SCIP:	0363edf7-0705-44a2-a8db-ee90992e79a1 Sweden d347bfae-af24-49a5-9ac4-d3c66bd7a51e France b04fda13-35c3-4bf8-b80f-ef0c636f4283 Poland 92761cb3-4806-43ed-bb04-43f235c34c1b Sweden c40e5db5-f20b-4c32-a229-6cf5aea0dd62 Germany 643255ac-732c-4217-a174-297f27f05bb4 Germany 5138f2a4-8987-4bcf-978f-852d159d58f4 Bulgaria 264668cf-87a9-4865-9054-46f8a01e0c49 Belgium 99d618a8-d94a-40d6-9d4c-1abd02a9b378 Portugal d68760d3-4322-4e34-9b65-2bbe53486d0c Hungary 116de3e1-3a7a-44ea-b3da-51694ac449e4 Norway 12ccfd45-e1f4-4361-b19b-67e01f179859 Poland ed30a39e-b3e4-4980-929c-5c63a3dda5cd Spain 9ab5e309-fcae-4c72-94ea-43020b9a4974 Germany bc54b264-f551-4b51-9205-c62bbdc47bd2 Greece 7081aa9a-8f64-4f20-8608-b8877e1bffb4 Netherlands 9c345ac9-8727-40cb-b336-e32b39d4b635 Italy 860630b9-3860-4680-915e-c63ecc0003ab Finland 4af1b451-efda-4f5d-9103-35dda7c1d117 Germany 707f923c-0f2d-43e4-b4a0-c4f1abb2eb8b Denmark b54a6a98-667d-4aa8-ab40-b64fb4f13047 Poland d71e326b-49ee-4ffc-9f13-f66fcf2c0520 Czechia 3f1087ca-7321-4583-a272-14b4362f7319 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

ABB EcoSolutions:	Yes
ABB Site Meeting Group Waste To Landfill Target:	No non-hazardous waste is sent to a landfill
EcoSolutions Profile:	1SBC100156C0308
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_2634H36994B2
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_HW02016-15006C
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:	1.05 kg
Package Level 1 EAN:	3471523132030

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):	3706599
E-Number (Sweden):	3210033

Accessories

Identifier	Description	Type	Qty	Unit Of Measure
1SBN010015R1001	CE5-01D0.1 Auxiliary Contact Block	CE5-01D0.1	1	piece
1SBN010015R1010	CE5-10D0.1 Auxiliary Contact Block	CE5-10D0.1	1	piece
1SBN010016R1001	CE5-01W0.1 Auxiliary Contact Block	CE5-01W0.1	1	piece
1SBN010016R1010	CE5-10W0.1 Auxiliary Contact Block	CE5-10W0.1	1	piece
1SBN010017R1001	CE5-01D2 Auxiliary Contact Block	CE5-01D2	1	piece
1SBN010017R1010	CE5-10D2 Auxiliary Contact Block	CE5-10D2	1	piece

1SBN010018R1001	CE5-01W2 Auxiliary Contact Block	CE5-01W2	1	piece
1SBN010018R1010	CE5-10W2 Auxiliary Contact Block	CE5-10W2	1	piece
1SBN010013R1010	CB5-10 Impulse Contact Block	CB5-10	1	piece
1SBN010013R1001	CB5-01 Impulse Contact Block	CB5-01	1	piece
1SBN010110R1010	CA4-10 Auxiliary Contact Block	CA4-10	1	piece
1SBN010110T1010	CA4-10-T Auxiliary Contact Block	CA4-10-T	1	piece
1SBN010110R1001	CA4-01 Auxiliary Contact Block	CA4-01	1	piece
1SBN010110T1001	CA4-01-T Auxiliary Contact Block	CA4-01-T	1	piece
1SBN010111R1010	CC4-10 Leading Auxiliary Contact Block	CC4-10	1	piece
1SBN010111R1001	CC4-01 Lagging Auxiliary Contact Block	CC4-01	1	piece
1SBN010120R1011	CAL4-11 Auxiliary Contact Block	CAL4-11	1	piece
1SBN010120T1011	CAL4-11-T Auxiliary Contact Block	CAL4-11-T	1	piece
1SBN010140R1022	CA4-22E Auxiliary Contact Block	CA4-22E	1	piece
1SBN010140R1031	CA4-31E Auxiliary Contact Block	CA4-31E	1	piece
1SBN010140R1040	CA4-40E Auxiliary Contact Block	CA4-40E	1	piece
1SBN010140R1004	CA4-04E Auxiliary Contact Block	CA4-04E	1	piece
1SBN010151R1011	CAT4-11E Auxiliary Contact / Coil Terminal Block	CAT4-11E	1	piece
1SBN070156T1000	LDC4 Additional Coil Terminal Block	LDC4	1	piece
1SBN020112R1000	TEF4-ON Frontal Electronic Timer	TEF4-ON	1	piece
1SBN020113R1000	TEF4S-ON Frontal Electronic Timer	TEF4S-ON	1	piece
1SBN010134R1011	CAL4-11K Auxiliary Contact Block	CAL4-11K	1	piece
1SBN020114R1000	TEF4-OFF Frontal Electronic Timer	TEF4-OFF	1	piece
1SBN020115R1000	TEF4S-OFF Frontal Electronic Timer	TEF4S-OFF	1	piece
1SBN033405T1000	VM96-4 Mechanical Interlock Unit	VM96-4	1	piece
1SBN110108T1000	BX4 Protective Cover	BX4	1	piece
1SBN040100R1011	WA4-11 24-60V50/60HZ-DC Mechanical Latching Unit	WA4-11	1	piece

1SBN083413R2000	BEY65-4 Connection Set for Star-Delta Starter	BEY65-4	1	piece
1SBN040100R1014	WA4-14 250-500V50/60HZ-DC Mechanical Latching Unit	WA4-14	1	piece
1SBN110122T1000	BDT4 Test Block	BDT4	1	piece
1SBN083411R1000	BER65-4 Connection Set for Reversing Contactors	BER65-4	1	piece
1SBN040100R1012	WA4-12 48-130V50/60HZ-DC Mechanical Latching Unit	WA4-12	1	piece
1SBN060100R1000	RA4 Interface Relay	RA4	1	piece
1SBN040100R1013	WA4-13 100-250V50/60HZ-DC Mechanical Latching Unit	WA4-13	1	piece
1SBN070159T1000	LDC4K Additional Coil Terminal Block	LDC4K	1	piece
1SBN083406R1000	BEA65-4 Connecting Link with Manual Motor Starter	BEA65-4	1	piece
1SBN010160R1001	CA4-01K Auxiliary Contact Block	CA4-01K	1	piece
1SBN010146R1022	CA4-22EK Auxiliary Contact Block	CA4-22EK	1	piece
1SBN010160R1010	CA4-10K Auxiliary Contact Block	CA4-10K	1	piece
1SBN010160T1001	CA4-01K-T Auxiliary Contact Block	CA4-01K-T	1	piece
1SBN010160T1010	CA4-10K-T Auxiliary Contact Block	CA4-10K-T	1	piece
1SBN010146R1031	CA4-31EK Auxiliary Contact Block	CA4-31EK	1	piece
1SBN010146R1040	CA4-40EK Auxiliary Contact Block	CA4-40EK	1	piece

Categories

Products > Low Voltage Products and Systems > Control Products > Contactors > Block Contactors > AF Contactors > AF40

Parts & Services > Drives > Services > Spares and Consumables > Parts

