



PRODUCT-DETAILS

AF40-40-00-13

AF40-40-00-13 100-250V50/60HZ-DC Contactor



General Information

Extended Product Type	AF40-40-00-13
Product ID	1SBL347201R1300
EAN	3471523133532
Catalog Description	AF40-40-00-13 100-250V50/60HZ-DC Contactor
Long Description	The AF40-40-00-13 is a 4 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 18.5 kW / 400 V AC (AC-3) 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.

Ordering

Minimum Order Quantity	1 piece
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Popular Downloads

Data Sheet, Technical	1SBC100214C0202
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Information

Instructions and Manuals	1SBC101047M6801
Instructions and Manuals (Part 2)	1SAC200017M0002
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	70 mm
Product Net Depth / Length	113.5 mm
Product Net Height	125.5 mm
Product Net Weight	1.27 kg

Technical

Number of Main Contacts NO	4
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	0
Number of Auxiliary Contacts NC	0
Number of Poles	4P
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 $\Theta = 40^\circ\text{C}$ 105 A
Rated Operational Current AC-1 (I_e)	(690 V) 40 °C 70 A (690 V) 60 °C 60 A (690 V) 70 °C 50 A
Rated Operational Current AC-3 (I_e)	(415 V) 60 °C 40 A (440 V) 60 °C 40 A (500 V) 60 °C 35 A (690 V) 60 °C 25 A (380 / 400 V) 60 °C 40 A (220 / 230 / 240 V) 60 °C 40 A
Rated Operational Power AC-3 (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 $I_e > 100\text{ A}$) at 440 V 950 A $\cos \phi = 0.45$ ($\cos \phi = 0.35$ for $I_e > 100\text{ A}$) 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
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
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 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) 60 A
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 3 A (200 ... 208 V AC) Three Phase 10 A (220 ... 240 V AC) Three Phase 15 A (240 V AC) Single Phase 7-1/2 A (440 ... 480 V AC) Three Phase 30 A (550 ... 600 V AC) Three Phase 40 A

Environmental

Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating Altitude Permissible	Without Derating 3000 m
Resistance to Vibrations	3g 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	c3290553-ec7e-4413-8422-b049cb613ccd France
Simplified SCIP	af1b7c66-12d7-4952-9e5e-0e809931c522 Germany 588470e7-0826-4e92-ae23-f3f6f47db275 Norway 39ae7acf-5ca4-4c3c-9053-f0392d2a2c22 Hungary e9051e8f-307c-455d-bc45-7f982f3b6249 Estonia b9a24bb9-6d1c-4ab7-b7e7-beaf208d19a0 Greece ca2c0146-8e95-491c-be8f-0f704b70bb04 Portugal e2f91347-0426-410f-a2d6-b404c0677dfe Bulgaria e4491358-22f3-4fbd-9dfe-10207d8d78a0 Poland ed7f129b-6024-4ea7-b7df-ee1e3c60c66f Finland f9c9f704-f9ec-4453-be8c-a29af6de5c30 Belgium 9af4da5b-09ff-46b1-a43b-02bbcaf695a8 Italy 979e582d-3243-45c3-b2c1-c7add6a7cb4d Germany 122eade-5156-4574-adcc-413677f6ae8d Denmark ed1cc105-b380-402e-9f23-dc7a44dc0515 Germany d70f71e2-96c7-496c-a33f-c69bc805adba Croatia b8d2172c-c48f-4ebb-a4ba-d57ba7538ce8 Czech Republic 2f9a6b5b-d608-471f-bd66-1c0b3be53d93 Poland 9c8756fc-3f6e-4e7d-a36b-547adc0d68b1 Netherlands 7aa6724f-87a5-4d2c-84ed-9e5650f25dfe Sweden 972baf47-decc-49a9-ac7f-a5c35ff81d90 Poland 054ea2e7-48af-4441-bd12-b155ca364df2 France 60301d12-122b-4c9b-a6c1-63b9594f9328 Sweden 354df93b-693d-46bb-9426-d9fd84027f98 Germany dd792a33-4918-4577-8d32-cc6ee309d03e Germany 85428e11-4e12-4abd-8405-092267b1c612 Hungary 62d5cca5-f098-4528-831a-05f59ecf38a1 Spain 7aea1ebf-ba76-42c7-9a41-04f07b6b5eb3 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
End Of Life Disassembling Instructions	1SBC101081M6801
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
Declaration of Conformity - CCC	2020980304001256
Declaration of Conformity - CE	1SBD250001U1000
Declaration of Conformity - UKCA	1SBD250032U1000
DNV Certificate	DNV_TAE00001AF-4
KC Certificate	KC_HW02016-15009C
LR Certificate	LRS_LR23403517TA-02
RMRS Certificate	RMRS_1400682124

UL Certificate

UL-US-L312527-1142-02114102-6

UL-CA-L312527-4142-02114102-6

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	1.27 kg
Package Level 1 EAN	3471523133532
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	10.16 kg
Package Level 3 Units	192 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 >> Iec Contactors
E-Number (Finland)	3707257
E-Number (Sweden)	3210298

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SBN112303T1000	BP38-4 Mounting Piece	BP38-4	1	piece
1SBN113403T1000	BP65-4 Mounting Piece	BP65-4	1	piece
1SBN113903T1000	BP96-4 Mounting Piece	BP96-4	1	piece
1SBN110108T1000	BX4 Protective Cover	BX4	1	piece
1SBN110109W1000	BX4-CA Protective Cover	BX4-CA	1	piece
1SBN010110R1001	CA4-01 Auxiliary Contact Block	CA4-01	1	piece
1SBN010160R1001	CA4-01K Auxiliary Contact Block	CA4-01K	1	piece
1SBN010110T1001	CA4-01-T Auxiliary Contact Block	CA4-01-T	1	piece
1SBN010140R1004	CA4-04E Auxiliary Contact Block	CA4-04E	1	piece
1SBN010110R1010	CA4-10 Auxiliary Contact Block	CA4-10	1	piece
1SBN010160R1010	CA4-10K Auxiliary Contact Block	CA4-10K	1	piece
1SBN010110T1010	CA4-10-T Auxiliary Contact Block	CA4-10-T	1	piece
1SBN010140R1022	CA4-22E Auxiliary Contact Block	CA4-22E	1	piece
1SBN010146R1022	CA4-22EK Auxiliary Contact Block	CA4-22EK	1	piece
1SBN010140R1031	CA4-31E Auxiliary Contact Block	CA4-31E	1	piece
1SBN010146R1031	CA4-31EK Auxiliary Contact Block	CA4-31EK	1	piece
1SBN010140R1040	CA4-40E Auxiliary Contact Block	CA4-40E	1	piece
1SBN010146R1040	CA4-40EK Auxiliary Contact Block	CA4-40EK	1	piece

1SBN010120R1011	CAL4-11 Auxiliary Contact Block	CAL4-11	1	piece
1SBN010134R1011	CAL4-11K Auxiliary Contact Block	CAL4-11K	1	piece
1SBN010120T1011	CAL4-11-T Auxiliary Contact Block	CAL4-11-T	1	piece
1SBN010151R1011	CAT4-11E Auxiliary Contact / Coil Terminal Block	CAT4-11E	1	piece
1SBN010111R1001	CC4-01 Lagging Auxiliary Contact Block	CC4-01	1	piece
1SBN010111R1010	CC4-10 Leading Auxiliary Contact Block	CC4-10	1	piece
1SBN010015R1001	CE5-01D0.1 Auxiliary Contact Block	CE5-01D0.1	1	piece
1SBN010017R1001	CE5-01D2 Auxiliary Contact Block	CE5-01D2	1	piece
1SBN010016R1001	CE5-01W0.1 Auxiliary Contact Block	CE5-01W0.1	1	piece
1SBN010018R1001	CE5-01W2 Auxiliary Contact Block	CE5-01W2	1	piece
1SBN010015R1010	CE5-10D0.1 Auxiliary Contact Block	CE5-10D0.1	1	piece
1SBN010017R1010	CE5-10D2 Auxiliary Contact Block	CE5-10D2	1	piece
1SBN010016R1010	CE5-10W0.1 Auxiliary Contact Block	CE5-10W0.1	1	piece
1SBN010018R1010	CE5-10W2 Auxiliary Contact Block	CE5-10W2	1	piece
1SBN073452R2000	LK96-4F Terminals for Control Lead Connections	LK96-4F	1	piece
1SBN070156T1000	LDC4 Additional Coil Terminal Block	LDC4	1	piece
1SBN070159T1000	LDC4K Additional Coil Terminal Block	LDC4K	1	piece
1SBN071305R1000	LF16-4 Connecting Strip	LF16-4	1	piece
1SBN071306R1000	LG16-4 Connecting Strip	LG16-4	1	piece
1SBN123402R1000	LT52-40 Terminal Shroud	LT52-40	1	piece
1SBN123902R1000	LT80-40 Terminal Shroud	LT80-40	1	piece
1SBN071303T1000	LY16-4 Connecting Strip	LY16-4	1	piece
1SBN060100R1000	RA4 Interface Relay	RA4	1	piece
1SBN020114R1000	TEF4-OFF Frontal Electronic Timer	TEF4-OFF	1	piece
1SBN020112R1000	TEF4-ON Frontal Electronic Timer	TEF4-ON	1	piece
1SBN020115R1000	TEF4S-OFF Frontal Electronic Timer	TEF4S-OFF	1	piece
1SBN020113R1000	TEF4S-ON Frontal Electronic Timer	TEF4S-ON	1	piece
1SBN040100R1010	WA4-10 24VDC Mechanical Latching Unit	WA4-10	1	piece
1SBN040100R1011	WA4-11 24-60V50/60HZ-DC Mechanical Latching Unit	WA4-11	1	piece
1SBN040100R1012	WA4-12 48-130V50/60HZ-DC Mechanical Latching Unit	WA4-12	1	piece
1SBN040100R1013	WA4-13 100-250V50/60HZ-DC Mechanical Latching Unit	WA4-13	1	piece
1SBN040100R1014	WA4-14 250-500V50/60HZ-DC Mechanical Latching Unit	WA4-14	1	piece
1SBN040200R1011	WA4-96-11 24-60V50/60HZ-DC Mechanical Latching Unit	WA4-96-11	1	piece
1SBN040200R1012	WA4-96-12 48-130V50/60HZ-DC Mechanical Latching Unit	WA4-96-12	1	piece
1SBN040200R1013	WA4-96-13 100-250V50/60HZ-DC Mechanical Latching Unit	WA4-96-13	1	piece
1SBN040200R1014	WA4-96-14 250-500V50/60HZ-DC Mechanical Latching Unit	WA4-96-14	1	piece

Categories

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



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