



 PRODUCT-DETAILS

AF80-40-00-13

AF80-40-00-13 100-250V50/60HZ-DC Contactor



General Information

Extended Product Type:	AF80-40-00-13
Product ID:	1SBL397201R1300
EAN:	3471523133730
Catalog Description:	AF80-40-00-13 100-250V50/60HZ-DC Contactor
Long Description:	The AF80-40-00-13 is a 4 pole - 1000 V IEC or 600 UL contactor with screw terminals, controlling motors up to 37 kW / 400 V AC (AC-3) and switching power circuits up to 125 A (AC-1) or 105 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:	AF80-40-00-13

Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

Popular Downloads

EPLAN Data:	9AAC175975_EPLAN
Data Sheet, Technical Information:	1SBC100214C0202
Instructions and Manuals:	1SBC101047M6801
Instructions and Manuals (Part 2):	1SAC200017M0002
CAD Dimensional Drawing:	2CDC001079B0201

Dimensions

Product Net Width:	90 mm
Product Net Depth / Length:	116 mm
Product Net Height:	125.5 mm
Product Net Weight:	1.44 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 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 $\Theta = 40\text{ °C}$ 125 A
Rated Operational Current AC-1 (I_e):	(690 V) 40 °C 125 A (690 V) 60 °C 105 A (690 V) 70 °C 90 A
Rated Operational Current AC-3 (I_e):	(415 V) 60 °C 80 A (440 V) 60 °C 80 A (500 V) 60 °C 65 A (690 V) 60 °C 49 A (1000 V) 60 °C 25 A (380 / 400 V) 60 °C 80 A (220 / 230 / 240 V) 60 °C 80 A
Rated Operational Power AC-3 (P_e):	(415 V) 45 kW (440 V) 45 kW (500 V) 45 kW (690 V) 45 kW (1000 V) 35 kW (380 / 400 V) 37 kW (220 / 230 / 240 V) 22 kW

Rated Short-time Withstand Current Low Voltage (I_{cw}):	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 780 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
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 8 W at Rated Operating Conditions AC-3 per Pole 3.2 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 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:	Pozidriv 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) 105 A
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 7-1/2 A (200 ... 208 V AC) Three Phase 25 A (220 ... 240 V AC) Three Phase 30 A (240 V AC) Single Phase 15 A (440 ... 480 V AC) Three Phase 60 A (550 ... 600 V AC) Three Phase 75 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 Declaration:	2CMT2021-006277
RoHS Information:	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
SCIP:	2b091a0d-decf-4ad7-a73f-b0293dc60388 France
Simplified SCIP:	8417282e-6c21-4c2c-96cd-e3dcbad528cb France f2babb07-8653-4166-816f-d1e501f87e41 Germany 1d1bc94f-e6c2-4b68-8982-2d60f2eebaba Sweden 53aa3e8e-d7c2-4a62-9d11-09c78d1d1a03 Poland 7230619f-dcd1-4989-88ee-6b9f5340e73a Germany 2c15b055-ec43-4341-906f-970b1f82b0d Hungary 2165d294-c079-4987-8d57-ae68465659d7 Belgium 81c26c7c-95f2-4aa0-a511-d3cf43183e8f Sweden e106a14b-d6e3-4e40-9899-cdb431f19829 Norway 6ca7de89-07ae-41ff-95ef-2271888d89f1 Croatia 00bfcc82-9a4a-4f99-aed5-ca1f51652605 Italy 9636f2c2-2834-45cc-9711-eb1425f5db86 Germany 778e1bf7-8b5a-4231-994b-b21b68ccad13 Netherlands 0aa0701f-a055-4bd6-957c-a873410eff3b Greece aeb7c507-dd8c-4841-9783-e061e607a50a Spain 0f066d6a-7326-4375-aceb-d18e1c9c858f Finland 96ec53b1-6fea-4844-9e02-927ef2d35e65 Portugal 39f984af-2367-479f-8a08-62ec4098c6d0 Germany f6e4194a-66bb-4054-a721-601c19192ef3 Denmark 4562d14c-6c14-4119-96c0-3751c8015259 Germany 8d36eb43-a090-4eba-938c-02e7decad674 Czechia a1b851cc-bbe7-4fc8-9c7e-3d37821a3304 Poland 50853bbe-847c-449d-99b5-5c38d50d12e1 Estonia f6186443-61dd-4415-95b1-671f480a3c38 Belgium 51902d18-bb30-4b88-89cd-65ea2c4251aa Hungary 42b4aec1-b92e-4666-ab62-8af690852234 Bulgaria 0c529547-5e28-4a14-be43-2432d9121285 Poland
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:	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_2634H36994B2
CB Certificate:	CB_SE-116522A2
CCC Certificate:	CCC_2024010304656667
Declaration of Conformity - CCC:	2020980304001255
Declaration of Conformity - CE:	1SBD250001U1000
Declaration of Conformity - UKCA:	1SBD250032U1000
DNV Certificate:	DNV_TAE00001AF-4
KC Certificate:	KC_HW02016-15013C
LR Certificate:	LRS_LR23403517TA-02
RMRS Certificate:	RMRS_1400682124
UL Certificate:	UL-US-L312527-1142-02114102-12 UL-CA-L312527-4142-02114102-12
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:	1.57 kg
Package Level 1 EAN:	3471523133730

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):	3707460
E-Number (Sweden):	3210315

Accessories

Identifier	Description	Type	Qty	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

Identifier	Description	Type	Qty	Unit Of Measure
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

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