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 PRODUCT-DETAILS

# AF116-40-11B-13

## AF116-40-11B-13 Contactor




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**General Information**

Extended Product Type	AF116-40-11B-13
Product ID	1SFL427102R1311
EAN	7320500503836
Catalog Description	AF116-40-11B-13 Contactor

Long Description	<p>The AF116-40-11B-13 is a 4 pole - 690 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and Main Circuit Bars, controlling motors up to 55 kW / 400 V AC (AC-3) / and switching power circuits up to 160 A (AC-1) or 160 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.</p>
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**Ordering**

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

## Popular Downloads

EPLAN Data	9AAC174538_EPLAN
Data Sheet, Technical Information	1SBC100214C0202
Data Sheet, Technical Information (Part 2)	1SAC200017M0002
Instructions and Manuals	1SFC100003M0201
CAD Dimensional Drawing	2CDC001079B0201

## Dimensions

Product Net Width	120 mm
Product Net Depth / Length	128 mm
Product Net Height	150 mm
Product Net Weight	1.95 kg
Dimension Diagram	1SFB535001G1121

## Technical

Number of Main Contacts NO	4
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	1
Number of Auxiliary Contacts NC	1
Number of Poles	4P
Rated Operational Voltage	Main Circuit 690 V
Rated Frequency (f)	Main Circuit 50 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I <sub>th</sub> )	acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 160 A
Rated Operational Current AC-1 (I <sub>e</sub> )	(690 V) 40 °C 160 A (690 V) 60 °C 145 A (690 V) 70 °C 130 A
Rated Operational Current AC-3 (I <sub>e</sub> )	(415 V) 55 °C 116 A (440 V) 55 °C 116 A (380 / 400 V) 55 °C 116 A (220 / 230 / 240 V) 55 °C 116 A
Rated Operational Power AC-3 (P <sub>e</sub> )	(415 V) 55 kW (440 V) 75 kW (380 / 400 V) 55 kW (220 / 230 / 240 V) 30 kW
Rated Breaking Capacity AC-3	8 x I <sub>e</sub> AC-3
Rated Breaking Capacity AC-3e	8.5 x I <sub>e</sub> AC-3e
Rated Making Capacity AC-3	10 x I <sub>e</sub> AC-3
Rated Making Capacity AC-3e	12 x I <sub>e</sub> AC-3e
Short-Circuit Protective Devices	gG Type Fuses 200 A

Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 160 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 536 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 1300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 928 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 379 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 2000 A
Rated Insulation Voltage ( $U_i$ )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage ( $U_{imp}$ )	Main Circuit 8 kV
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-3) 300 cycles per hour
Mechanical Durability	5 million
Maximum Mechanical Switching Frequency	300 cycles per hour
Coil Operating Limits	(acc. to IEC 60947-4-1) 0.85 x $U_c$ Min. ... 1.1 x $U_c$ Max. (at $\theta \leq 70$ °C)
Rated Control Circuit Voltage ( $U_c$ )	50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 30.7 V-A Holding at Max. Rated Control Circuit Voltage 60 Hz 30.7 V-A Holding at Max. Rated Control Circuit Voltage DC 2.8 V-A Holding at Max. Rated Control Circuit Voltage DC 2.8 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 220 V-A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 220 V-A Pull-in at Max. Rated Control Circuit Voltage DC 275 V-A Pull-in at Max. Rated Control Circuit Voltage DC 275 W
Power Loss	at Rated Operating Conditions per Pole 12 W
Operate Time	Between Coil De-energization and NO Contact Opening 40 ... 70 ms Between Coil Energization and NO Contact Closing 25 ... 55 ms
Connecting Capacity Main Circuit	Flexible 1 x 10 ... 70 mm <sup>2</sup> Flexible 2 x 10 ... 70 mm <sup>2</sup> Rigid Cu-Cable 1 x 10 ... 95 mm <sup>2</sup> Rigid Cu-Cable 2 x 10 ... 95 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 2x0.75 ... 2.5 mm <sup>2</sup> Solid 2 x 1 ... 4 mm <sup>2</sup> Stranded 2 x 1 ... 4 mm <sup>2</sup>
Connecting Capacity	Flexible 2 x 10 ... 70 mm <sup>2</sup> Rigid Cu-Cable 2 x 10 ... 95 mm <sup>2</sup>
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP40 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00
Tightening Torque	Cable Lug 9 N-m Main Circuit 8 N-m
Terminal Type	Main Circuit: Bars
Product Name	Block Contactor

## Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 160 A
Horsepower Rating UL/CSA	(200 ... 208 V AC) Three Phase 15 Hp (200 V AC) Three Phase 30 hp (208 V AC) Three Phase 30 hp (220 ... 240 V AC) Three Phase 20 Hp (220 ... 240 V AC) Three Phase 40 hp

(440 ... 480 V AC) Three Phase 40 Hp  
 (440 ... 480 V AC) Three Phase 75 hp  
 (550 ... 600 V AC) Three Phase 50 Hp  
 (550 ... 600 V AC) Three Phase 100 hp

**Environmental**

Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 50 °C
	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 55 °C
	Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... 70 °C
	Close to Contactor for Storage -40 ... 70 °C
Maximum Operating Altitude Permissible	Without Derating 3000 m

**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
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	Non-hazardous waste is sent to a landfill, where there is no alternative option available within 100km of a facility UL 2799 Zero Waste To Landfill Validation available
End Of Life Disassembling Instructions	1SFC100112M0001
Environmental Product Declaration - EPD	1SFC100092D0201
Improved Energy Efficiency for Customers	Product Efficiency - Product requires less energy to operate compared to similar product on market or older products from the same line Product Efficiency - Product considered more energy-efficient 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 - 87.8 %

**Certificates and Declarations**

ABS Certificate	14-LD1092198-PDA 14-LD1092198-1-PDA-DUP
BV Certificate	BV_36353_A0BV
CB Certificate	SEMKO_SE-77317
CQC Certificate	CQC2013010304604055
Declaration of Conformity - CCC	2020980304001304
Declaration of Conformity - CE	2CMT2015-005440

Declaration of Conformity - UKCA	2CMT2020-006118
KC Certificate	9AKK107046A9911
LR Certificate	16-20064
PRS Certificate	TE_2092_880423_16
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
UL Certificate	E73397_20140710

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	147 mm
Package Level 1 Depth / Length	197 mm
Package Level 1 Height	155 mm
Package Level 1 Gross Weight	2.15 kg
Package Level 1 EAN	7320500503836

## 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)	3706076
E-Number (Norway)	4117777

## Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SFN010820R1011	CAL19-11 Auxiliary Contact Block	CAL19-11	1	piece
1SFN010820R3311	CAL19-11B Auxiliary Contact Block	CAL19-11B	1	piece
1SFN010832R1001	CEL19-01 Auxiliary Contact Block	CEL19-01	1	piece
1SFN010832R1010	CEL19-10 Auxiliary Contact Block	CEL19-10	1	piece
1SFN074208R2000	LD146-40 Connection Module	LD146-40	1	piece
1SFN124203R2000	LT140-40L Terminal Shroud	LT140-40L	1	piece
1SFN124801R2000	LT205-40C Terminal Shroud	LT205-40C	1	piece
1SFN074807R2000	LW205-40 Terminal Enlargement	LW205-40	1	piece
1SFN124803R2000	LT205-40L Terminal Shroud	LT205-40L	1	piece
1SFN075407R2000	LW370-40 Terminal Enlargement	LW370-40	1	piece
1SFN125401R2000	LT370-40C Terminal Shroud	LT370-40C	1	piece
1SFN125403R2000	LT370-40L Terminal Shroud	LT370-40L	1	piece

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## Categories

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Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF116

