

PRODUCT-DETAILS

# AF116-40-00B-11

## AF116-40-00B-11 Contactor



### General Information

Extended Product Type	AF116-40-00B-11
Product ID	1SFL427102R1100
EAN	7320500503904
Catalog Description	AF116-40-00B-11 Contactor
Long Description	The AF116-40-00B-11 is a 4 pole - 690 V IEC or 600 V UL contactor with 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 (24-60 V 50/60 Hz and 20-60 V 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

Data Sheet, Technical Information	1SBC100192C0206
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Instructions and Manuals	1SFC100003M0201
CAD Dimensional Drawing	2CDC001079B0201
Dimension Diagram	1SFB535001G1121

Dimensions

Product Net Width	120 mm
Product Net Depth / Length	128 mm
Product Net Height	150 mm
Product Net Weight	1.95 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
Rated Operational Voltage	Main Circuit 690 V
Rated Frequency (f)	Main Circuit 50 Hz
Conventional Free-air Thermal Current (I <sub>th</sub> )	acc. to IEC 60947-4-1, Open Contactors $\Theta$ = 40 °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 Making Capacity AC-3	10 x I <sub>e</sub> AC-3
Short-Circuit Protective Devices	gG Type Fuses 200 A
Rated Short-time Withstand Current Low Voltage (I <sub>cw</sub> )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 928 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 160 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 379 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 536 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 2000 A
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour
Rated Insulation Voltage (U <sub>i</sub> )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	Main Circuit 8 kV
Mechanical Durability	5 million
Maximum Mechanical	300 cycles per hour

## Switching Frequency

Coil Operating Limits (acc. to IEC 60947-4-1) 0.85 x U<sub>c</sub> Min. ... 1.1 x U<sub>c</sub> Max. (at  $\theta \leq 70^\circ\text{C}$ )

Rated Control Circuit Voltage (U<sub>c</sub>) 50 Hz 24 ... 60 V  
60 Hz 24 ... 60 V  
DC Operation 20 ... 60 V

## Coil Consumption

Holding at Max. Rated Control Circuit Voltage 50 Hz 5.5 V·A  
Holding at Max. Rated Control Circuit Voltage 60 Hz 5.5 V·A  
Holding at Max. Rated Control Circuit Voltage DC 2.5 W  
Pull-in at Max. Rated Control Circuit Voltage 50 Hz 225 V·A  
Pull-in at Max. Rated Control Circuit Voltage 60 Hz 225 V·A  
Pull-in at Max. Rated Control Circuit Voltage DC 210 W

## Operate Time

Between Coil De-energization and NO Contact Opening 40 ... 70 ms  
Between Coil Energization and NO Contact Closing 20 ... 55 ms

## Connecting Capacity Main Circuit

Flexible 1 x 10 ... 70 mm<sup>2</sup>  
Rigid Cu-Cable 2 x 10 ... 95 mm<sup>2</sup>

## Connecting Capacity Auxiliary Circuit

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>

## 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 IP00

## Terminal Type

Main Circuit: Bars

## 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 U<sub>c</sub>) -25 ... 50 °C  
Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 U<sub>c</sub>) -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 Information

2CMT2021-006277

## RoHS Status

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)

## Circular Value

ABB EcoSolutions	Yes
Circular Design Principles Recyclability Rate	Design for Closing Resource Loops - Standard EN45555 - 87.8 %
End of Life Instructions	1SFC100112M0001
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
Improved Resource Efficiency for Customers	Product Efficiency - Product requires less energy to operate compared to similar product on market or older products from the same line
Sustainable Material Content	Recycled Metal - 37 %

## Eco Transparency

Environmental Product Declaration - EPD	1SFC100092D0201
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## Certificates and Declarations

ABS Certificate	14-LD1092198-PDA
BV Certificate	BV_36353_A0BV
CB Certificate	SEMKO_SE-70479M1
CQC Certificate	CQC2013010304604055
Declaration of Conformity - CCC	2020980304001304
Declaration of Conformity - CE	2CMT2015-005440
Declaration of Conformity - UKCA	2CMT2020-006118
EAC Certificate	9AKK107046A8618
KC Certificate	9AKK107046A9911
LR Certificate	LR_14_70011(E1)
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	7320500503904

## Classifications

Object Classification Code	Q
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ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 5	EC000066 - Magnet contactor, AC-switching
ETIM 6	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 8	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4758 >> Iec Contactors
E-Number (Finland)	3706064

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Categories

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

