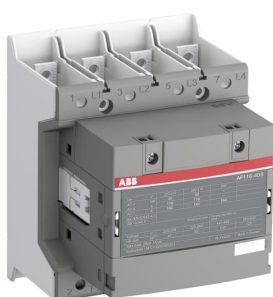


## PRODUCT-DETAILS

# AF116-40-00B-12

## AF116-40-00B-12 Contactor



### General Information

Extended Product Type	AF116-40-00B-12
Product ID	1SFL427102R1200
EAN	7320500503874
Catalog Description	AF116-40-00B-12 Contactor
Long Description	The AF116-40-00B-12 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 (48-130 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
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 60 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 Uc Min. ... 1.1 x Uc Max. (at  $\theta \leq 70^\circ\text{C}$ )

Rated Control Circuit Voltage ( $U_c$ ) 50 Hz 48 ... 130 V  
 60 Hz 48 ... 130 V  
 DC Operation 48 ... 130 V

Coil Consumption Holding at Max. Rated Control Circuit Voltage 50 Hz 4 V·A  
 Holding at Max. Rated Control Circuit Voltage 60 Hz 4 V·A  
 Holding at Max. Rated Control Circuit Voltage DC 2.5 W  
 Pull-in at Max. Rated Control Circuit Voltage 50 Hz 180 V·A  
 Pull-in at Max. Rated Control Circuit Voltage 60 Hz 180 V·A  
 Pull-in at Max. Rated Control Circuit Voltage DC 150 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 2 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 1x 0.75 ... 2.5 mm<sup>2</sup>  
 Flexible with Insulated Ferrule 1x 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 1 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 Uc) -25 ... 50 °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 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	7320500503874

## 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 >> lec Contactors
E-Number (Finland)	3706072

Categories

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

