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 PRODUCT-DETAILS

# AF205-40-11-12

## AF205-40-11-12 Contactor




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**General Information**

Extended Product Type	AF205-40-11-12
Product ID	1SFL527102R1211
EAN	7320500503713
Catalog Description	AF205-40-11-12 Contactor

Long Description	<p>The AF205-40-11-12 is a 4 pole - 1000 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and Main Circuit Bars, controlling motors up to 110 kW / 400 V AC (AC-3) / and switching power circuits up to 350 A (AC-1) or 250 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.</p>
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**Ordering**

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

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**Popular Downloads**

Data Sheet, Technical Information	1SBC100214C0202
Data Sheet, Technical Information (Part 2)	1SAC200017M0002
Instructions and Manuals	1SFC100008M0201
CAD Dimensional Drawing	2CDC001079B0201
<b>Dimension Diagram</b>	<b>1SFB535001G1122</b>

## Dimensions

Product Net Width	140 mm
Product Net Depth / Length	152.5 mm
Product Net Height	195.6 mm
Product Net Weight	3.3 kg

## 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 1000 V
Rated Frequency (f)	Main Circuit 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ )	acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 350 A
Rated Operational Current AC-1 ( $I_e$ )	(1000 V) 40 °C 275 A (1000 V) 60 °C 250 A (1000 V) 70 °C 200 A (690 V) 40 °C 350 A (690 V) 60 °C 300 A (690 V) 70 °C 240 A
Rated Operational Current AC-3 ( $I_e$ )	(415 V) 55 °C 205 A (440 V) 55 °C 205 A (380 / 400 V) 55 °C 205 A (220 / 230 / 240 V) 55 °C 205 A
Rated Operational Power AC-3 ( $P_e$ )	(415 V) 110 kW (440 V) 132 kW (380 / 400 V) 110 kW (220 / 230 / 240 V) 55 kW
Rated Breaking Capacity AC-3	8 x $I_e$ AC-3
Rated Making Capacity AC-3	10 x $I_e$ AC-3
Short-Circuit Protective Devices	gG Type Fuses 400 A
Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 1640 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 350 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 670 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 2050 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 947 A
Maximum Breaking Capacity	cos $\phi$ =0.45 (cos $\phi$ =0.35 for $I_e > 100$ A) at 440 V 3500 A
Rated Insulation Voltage ( $U_i$ )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 1000 V
Rated Impulse Withstand Voltage ( $U_{imp}$ )	Main Circuit 8 kV
Maximum Electrical Switching Frequency	(AC-1) 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 <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 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
Power Loss	at Rated Operating Conditions per Pole 25 W
Operate Time	Between Coil De-energization and NO Contact Opening 45 ... 80 ms Between Coil Energization and NO Contact Closing 25 ... 60 ms
Connecting Capacity Main Circuit	Flexible 1 x 6 ... 120 mm <sup>2</sup> Rigid Cu-Cable 2 x 50 ... 120 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
Tightening Torque	Cable Lug 18 N·m Main Circuit 14 ... 31 N·m
Terminal Type	Main Circuit: Bars
Product Name	Block Contactor

## Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 1000 V
General Use Rating UL/CSA	(1000 V AC) 275 A
Horsepower Rating UL/CSA	(200 ... 208 V AC) Three Phase 30 Hp (200 V AC) Three Phase 60 hp (208 V AC) Three Phase 60 hp (220 ... 240 V AC) Three Phase 30 Hp (220 ... 240 V AC) Three Phase 75 hp (440 ... 480 V AC) Three Phase 75 Hp (440 ... 480 V AC) Three Phase 150 hp (550 ... 600 V AC) Three Phase 100 Hp (550 ... 600 V AC) Three Phase 200 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)

**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
End Of Life Disassembling Instructions	1SFC100112M0001
Environmental Product Declaration - EPD	1SFC100095D0201
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
Recyclability Rate of the Product acc. to EN45555	Design for Closing Resource Loops - Standard EN45555 - 79.2 %
Sustainable Material Content in Product (wt. %)	Recycled Metal - 35 %

**Certificates and Declarations**

ABS Certificate	14-LD1092198-PDA
BV Certificate	BV_36353_A0BV
CB Certificate	SEMKO_SE-77322
CQC Certificate	CQC2014010304676685
Declaration of Conformity - CCC	2020980304001306
Declaration of Conformity - CE	2CMT2015-005440
Declaration of Conformity - UKCA	2CMT2020-006118
EAC Certificate	9AKK107046A8618
LR Certificate	LR_14_70011(E1)
PRS Certificate	TE_2092_880423_16
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
UL Certificate	20140925-E73397

**Container Information**

Package Level 1 Units	box 1 piece
Package Level 1 Width	166 mm
Package Level 1 Depth / Length	238 mm
Package Level 1 Height	180 mm
Package Level 1 Gross Weight	3.9 kg
Package Level 1 EAN	7320500503713

**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)	3707199

E-Number (Norway)	3210330
E-Number (Sweden)	3210330

**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

**Categories**

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF205

