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 PRODUCT-DETAILS

# AF205-30-00-13

## AF205-30-00-13 Contactor




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**General Information**

Extended Product Type	AF205-30-00-13
Product ID	1SFL527002R1300
EAN	7320500480526
Catalog Description	AF205-30-00-13 Contactor

## Long Description

The AF205-30-00-13 is a 3 pole - 1000 V IEC or 600 V UL contactor with Main Circuit Bars, controlling motors up to 110 kW / 400 V AC (AC-3) or 150 hp / 480 V UL and switching power circuits up to 350 A (AC-1) or 300 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.

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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
Instructions and Manuals	1SFC100008M0201
CAD Dimensional Drawing	2CDC001079B0201
Dimension Diagram	1SFB535001G1056

**Dimensions**

Product Net Width	105 mm
Product Net Depth / Length	152 mm
Product Net Height	196 mm
Product Net Weight	2.4 kg

**Technical**

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	0
Number of Auxiliary Contacts NC	0
Rated Operational Voltage	Main Circuit 1000 V
Rated Frequency (f)	Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I <sub>th</sub> )	acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ }^\circ\text{C}$ 350 A
Rated Operational Current AC-1 (I <sub>e</sub> )	(1000 V) 40 °C 275 A (1000 V) 55 °C 250 A (1000 V) 60 °C 250 A (1000 V) 70 °C 200 A (690 V) 40 °C 350 A (690 V) 55 °C 300 A (690 V) 70 °C 240 A
Rated Operational Current AC-3 (I <sub>e</sub> )	(415 V) 55 °C 205 A (440 V) 55 °C 205 A (500 V) 55 °C 186 A (690 V) 55 °C 165 A (1000 V) 55 °C 100 A (380 / 400 V) 55 °C 205 A (220 / 230 / 240 V) 55 °C 205 A
Rated Operational Power AC-3 (P <sub>e</sub> )	(415 V) 110 kW (440 V) 132 kW (500 V) 132 kW (690 V) 160 kW (1000 V) 132 kW (380 / 400 V) 110 kW (220 / 230 / 240 V) 55 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 400 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 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 <sub>e</sub> > 100 A) at 440 V 3500 A cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 2500 A
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 300 cycles per hour
Rated Operational Current	(110 V) 2 Poles in Series, 40 °C 275 A

DC-1 ( $I_e$ )	(220 V) 3 Poles in Series, 40 °C 275 A
Rated Operational Current DC-3 ( $I_e$ )	(110 V) 2 Poles in Series, 40 °C 275 A (220 V) 3 Poles in Series, 40 °C 275 A
Rated Operational Current DC-5 ( $I_e$ )	(110 V) 2 Poles in Series, 40 °C 275 A (220 V) 3 Poles in Series, 40 °C 275 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
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 7 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 7 V·A Holding at Max. Rated Control Circuit Voltage DC 2.5 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 190 W
Operate Time	Between Coil De-energization and NO Contact Opening 37 ... 47 ms Between Coil Energization and NO Contact Closing 25 ... 55 ms
Connecting Capacity Main Circuit	Flexible 2 x 50 ... 95 mm <sup>2</sup> Rigid Al-Cable 1 x 95 ... 185 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 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 1000 V
General Use Rating UL/CSA	(600 V AC) 300 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 60 hp (208 V AC) Three Phase 60 hp (220 ... 240 V AC) Three Phase 75 hp (440 ... 480 V AC) Three Phase 150 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 $U_c$ ) -25 ... 50 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -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	Design for Closing Resource Loops - Standard EN45555 - 79.2 %
Recyclability Rate	
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 - 35 %

## Eco Transparency

Environmental Product Declaration - EPD	1SFC100095D0201 2TFP200018A1001
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## Certificates and Declarations

A2L Certificate - UL	9AKK108468A6695
ABS Certificate	14-LD1092198-PDA
BV Certificate	BV_36353_A0BV
CB Certificate	SE-82315
CCS Certificate	GB14T00030
CQC Certificate	CQC2014010304676685 CQC2014010304724672
Declaration of Conformity - CCC	2020980304001306 2020980304001071
Declaration of Conformity - CE	2CMT2015-005439
Declaration of Conformity - UKCA	2CMT2020-006118
DNV Certificate	DNV_E-14043
EAC Certificate	9AKK107046A8618
GL Certificate	GL_95072-14HH
KC Certificate	9AKK107046A9912
LR Certificate	LR_14_70011(E1)
PRS Certificate	TE_2092_880423_16
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
UL Certificate	20121023-E36588
UL Listing Card	UL_E36588

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	160 mm
Package Level 1 Depth / Length	258 mm
Package Level 1 Height	235 mm
Package Level 1 Gross Weight	3 kg
Package Level 1 EAN	7320500480526

## Classifications

Object Classification Code	Q
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)	3706461
E-Number (Norway)	3210138

## Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SFN170801R1001	RU19/120 LVRT-Module	RU19/120	1	piece
1SFN170801R1002	RU19/240 LVRT-Module	RU19/240	1	piece

## Categories

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

