

PRODUCT-DETAILS

AF116-30-11-13

AF116-30-11-13 Contactor



General Information

Extended Product Type	AF116-30-11-13
Product ID	1SFL427001R1311
EAN	7320500476376
Catalog Description	AF116-30-11-13 Contactor

Long Description	The AF116-30-11-13 is a 3 pole - 690 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and double clamp, controlling motors up to 55 kW / 400 V AC (AC-3) or 75 hp / 480 V UL 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.
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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	1SFB535001G1051

Dimensions

Product Net Width	90 mm
Product Net Depth / Length	126 mm
Product Net Height	150 mm
Product Net Weight	1.55 kg

Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	1
Number of Auxiliary Contacts NC	1
Rated Operational Voltage	Main Circuit 690 V
Rated Frequency (f)	Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I_{th})	acc. to IEC 60947-4-1, Open Contactors q = 40 °C 160 A
Rated Operational Current AC-1 (I_e)	(690 V) 40 °C 160 A (690 V) 60 °C 145 A (690 V) 70 °C 130 A
Rated Operational Current AC-3 (I_e)	(415 V) 55 °C 116 A (440 V) 55 °C 116 A (500 V) 55 °C 110 A (690 V) 55 °C 65 A (380 / 400 V) 55 °C 116 A (220 / 230 / 240 V) 55 °C 116 A
Rated Operational Current AC-3e (I_e)	(415 V) 60 °C 116 A (440 V) 60 °C 116 A (500 V) 60 °C 110 A (690 V) 60 °C 65 A (380 / 400 V) 60 °C 116 A (220 / 230 / 240 V) 60 °C 116 A
Rated Operational Power AC-3 (P_e)	(415 V) 55 kW (440 V) 75 kW (500 V) 75 kW (690 V) 55 kW (380 / 400 V) 55 kW (220 / 230 / 240 V) 30 kW
Rated Operational Power AC-3e (P_e)	(415 V) 55 kW (440 V) 75 kW (500 V) 75 kW (690 V) 55 kW (380 / 400 V) 55 kW (220 / 230 / 240 V) 30 kW
Rated Breaking Capacity AC-3	8 x I_e AC-3
Rated Breaking Capacity AC-3e	8.5 x I_e AC-3e

Rated Making Capacity AC-3	10 x I _e AC-3
Rated Making Capacity AC-3e	12 x I _e AC-3e
Short-Circuit Protective Devices	gG Type Fuses 250 A
Rated Short-time Withstand Current Low Voltage (I _{cw})	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 1160 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 _e > 100 A) at 440 V 2000 A cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 1000 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 DC-1 (I _e)	(110 V) 2 Poles in Series, 40 °C 145 A (220 V) 3 Poles in Series, 40 °C 145 A
Rated Operational Current DC-3 (I _e)	(110 V) 2 Poles in Series, 40 °C 145 A (220 V) 3 Poles in Series, 40 °C 145 A
Rated Operational Current DC-5 (I _e)	(110 V) 2 Poles in Series, 40 °C 145 A (220 V) 3 Poles in Series, 40 °C 145 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 θ ≤ 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 6 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 6 V·A Holding at Max. Rated Control Circuit Voltage DC 3 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 130 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 130 V·A Pull-in at Max. Rated Control Circuit Voltage DC 135 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 10 ... 70 mm ² Rigid Cu-Cable 2 x 10 ... 95 mm ²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible 2x0.75 ... 2.5 mm ² Solid 2 x 1 ... 4 mm ² Stranded 2 x 1 ... 4 mm ²
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	Double Clamp

Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating	(600 V AC) 160 A

UL/CSA

Horsepower Rating	(200 V AC) Three Phase 30 hp
UL/CSA	(208 V AC) Three Phase 30 hp
	(220 ... 240 V AC) Three Phase 40 hp
	(440 ... 480 V AC) Three Phase 75 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
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

Circular Value

Circular Design Principles	Design for Closing Resource Loops - Standard EN45555 - 87.8 %
Recyclability Rate	
ABB EcoSolutions	Yes
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 - Achieved
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 - Achieved

Eco Transparency

Environmental Product Declaration - EPD	1SFC100092D0201
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Certificates and Declarations (Document Number)

ABS Certificate	14-LD1092198-PDA
BV Certificate	BV_36353_A0BV
CB Certificate	SEMKO_SE-70479M1
CCS Certificate	GB14T00030
CQC Certificate	CQC2013010304604055
Declaration of Conformity - CCC	2020980304001304
Declaration of Conformity - CE	2CMT2015-005439
Declaration of Conformity - UKCA	2CMT2020-006118
DNV Certificate	DNV_E-14043
DNV GL Certificate	DNV_E-14043
EAC Certificate	9AKK107046A8618
Environmental Information	2CMT004732 1SAC200032H0002
Environmental Product Declaration - EPD	1SFC100092D0201

GL Certificate	DNV_E-14043
Instructions and Manuals	1SFC100003M0201
LR Certificate	LR_14_70011(E1)
PRS Certificate	TE_2092_880423_16
REACH Declaration	2CMT2021-006202
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
RoHS Information	2CMT2021-006277
UL Certificate	20120925-E36588
UL Listing Card	UL_E36588

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	207 mm
Package Level 1 Depth / Length	216 mm
Package Level 1 Height	150 mm
Package Level 1 Gross Weight	1.75 kg
Package Level 1 EAN	7320500476376

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)	4755 >> Contactors
E-Number (Finland)	3706167
E-Number (Norway)	4117610
E-Number (Sweden)	3210068

Where Used (as part of "kit")

Identifier	Description	Type
3HAC059249-001	Contactor set	Kit

Categories

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

Robotics → Controllers → IRC5 → IRC5 Process Module

