PRODUCT-DETAILS

AF400-30-11-71

AF400-30-11 250-500V 50/60Hz / 250-500V DC Contactor

General Information

Extended Product Type	AF400-30-11-71
Product ID	1SFL577001R7111
EAN	7320500250006
Catalog Description	AF400-30-11 250-500V 50/60Hz / 250-500V DC Contactor
Long Description	The AF400-30-11-71 is a 3 pole - 1000 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and Main Circuit Bars, controlling motors up to 200 kW / 400 V AC (AC-3) or 350 hp / 480 V UL and switching power circuits up to 600 A (AC-1) or 550 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (250-500 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
Instructions and Manuals	1SFC380023-en
CAD Dimensional Drawing	2CDC001079B0201
Dimension Diagram	53540919-59

Dimensions

Product Net Width	186 mm
Product Net Depth / Length	216 mm
Product Net Height	278 mm
Product Net Weight	10.6 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 1000 V
Rated Frequency (f)	Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I_{th})	acc. to IEC 60947-4-1, Open Contactors Θ = 40 °C 600 A
Rated Operational Current AC-1 (I_e)	(1000 V) 40 °C 600 A (1000 V) 55 °C 500 A (1000 V) 70 °C 400 A (690 V) 40 °C 600 A (690 V) 55 °C 500 A (690 V) 70 °C 400 A
Rated Operational Current AC-3 (I_e)	(415 V) 55 °C 400 A (440 V) 55 °C 400 A (500 V) 55 °C 400 A (690 V) 55 °C 350 A (1000 V) 55 °C 155 A (380 / 400 V) 55 °C 400 A (220 / 230 / 240 V) 55 °C 400 A
Rated Operational Power AC-3 (P_e)	(415 V) 220 kW (440 V) 220 kW (500 V) 250 kW (690 V) 315 kW (1000 V) 220 kW (380 / 400 V) 200 kW (220 / 230 / 240 V) 110 kW
Rated Breaking Capacity AC-3	8 x Ie AC-3
Rated Making Capacity AC-3	10 x Ie AC-3
Short-Circuit Protective Devices	gG Type Fuses 630 A
Rated Short-time Withstand Current Low Voltage (I_{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 4400 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 840 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 2500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 4600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 3100 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 4000 A cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 3500 A
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-2 / AC-4) 60 cycles per hour (AC-3) 300 cycles per hour
Rated Operational Current DC-1 (I_e)	(110 V) 1-Pole, 40 °C 600 A (110 V) 2 Poles in Series, 40 °C 600 A

	(220 V) 3 Poles in Series, 40 °C 600 A (600 V) 3 Poles in Series, 40 °C 600 A
Rated Operational Current DC-3 (I_e)	(110 V) 1-Pole, 40 °C 600 A (110 V) 2 Poles in Series, 40 °C 600 A (220 V) 3 Poles in Series, 40 °C 600 A (600 V) 3 Poles in Series, 40 °C 600 A
Rated Operational Current DC-5 (I_e)	(110 V) 1-Pole, 40 °C 600 A (110 V) 2 Poles in Series, 40 °C 600 A (220 V) 3 Poles in Series, 40 °C 600 A (600 V) 3 Poles in Series, 40 °C 600 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	3 million
Maximum Mechanical Switching Frequency	300 cycles per hour
Coil Operating Limits	(acc. to IEC 60947-4-1) 0.85 x Uc Min. ... 1.1 x Uc Max. (at θ ≤ 70 °C)
Rated Control Circuit Voltage (U_c)	50 Hz 250 ... 500 V 60 Hz 250 ... 500 V DC Operation 250 ... 500 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage DC 7.5 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 950 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 950 V·A Pull-in at Max. Rated Control Circuit Voltage DC 885 V·A
Operate Time	Between Coil De-energization and NC Contact Closing 45 ... 55 ms Between Coil De-energization and NO Contact Opening 48 ... 58 ms Between Coil Energization and NC Contact Opening 45 ... 115 ms Between Coil Energization and NO Contact Closing 50 ... 120 ms
Connecting Capacity Main Circuit	Bar 47 mm² Rigid Al-Cable 240 mm² Rigid Cu-Cable 240 mm²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm² Flexible 1x0.75 ... 2.5 mm² Solid 2 x 1 ... 4 mm² Stranded 2 x 1 .... 4 mm²
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) 550 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 125 hp (208 V AC) Three Phase 125 hp (220 ... 240 V AC) Three Phase 150 hp (440 ... 480 V AC) Three Phase 350 hp (550 ... 600 V AC) Three Phase 400 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
Resistance to Shock acc. to IEC 60068-2-27	Shock Direction: A 5 g Shock Direction: B1 5 g Shock Direction: B2 5 g Shock Direction: C1 5 g Shock Direction: C2 5 g

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 - 63.1 %
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 considered more energy-efficient 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	1SFC100105D0201

Certificates and Declarations

ABS Certificate	15-LD1408622-PDA
BV Certificate	BV_13409-C0BV
CB Certificate	SE-82316
CCS Certificate	GB14T00030
CQC Certificate	CQC2007010304256683 CQC2011010304514755
Declaration of Conformity - CCC	2020980304001300 2020980304001081
Declaration of Conformity - CE	2CMT2019-005796
Declaration of Conformity - UKCA	2CMT2020-006118
DNV Certificate	DNV_E-10966
DNV GL Certificate	TAE00001W1
EAC Certificate	9AKK107046A8618
GL Certificate	GL_42988-02HH
LOVAG Certificate	SE-0146190
LR Certificate	16-20064
PRS Certificate	TE_2092_880423_16
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
UL Certificate	20121207-E36588
UL Listing Card	UL_E36588

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	280 mm
Package Level 1 Depth / Length	375 mm
Package Level 1 Height	310 mm
Package Level 1 Gross Weight	12 kg
Package Level 1 EAN	7320500250006

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)	3709250
E-Number (Norway)	4115289
E-Number (Sweden)	3228335

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 → AF400