PRODUCT-DETAILS

AF750N7-30-11-68

AF750N7-30-11-68 Contactor

General Information

Extended Product Type	AF750N7-30-11-68
Product ID	1SFL637001N6811
EAN	7320500543689
Catalog Description	AF750N7-30-11-68 Contactor
Long Description	The AF750N7-30-11-68 NEMA Contactor is a 3 pole - 1000 V IEC or 600 V UL contactor with Main Circuit: Bars, controlling motors up to 400 kW / 400 V AC (AC-3) or 600 hp / 480 V UL 1050 A (AC-1) or 900 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (24-60 V 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	1SBC100214C0202
Instructions and Manuals	1SFC380023-en
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	210 mm
Product Net Depth / Length	242 mm
Product Net Height	283 mm
Product Net Weight	13.6 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
Number of Poles	3P
Standards	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N° 14
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 1050 A
Rated Operational Current AC-1 (I_e)	(1000 V) 40 °C 1000 A (1000 V) 55 °C 875 A (1000 V) 70 °C 720 A (690 V) 40 °C 1050 A (690 V) 55 °C 875 A (690 V) 70 °C 720 A
Rated Operational Current AC-3 (I_e)	(415 V) 55 °C 750 A (440 V) 55 °C 750 A (500 V) 55 °C 750 A (690 V) 55 °C 650 A (1000 V) 55 °C 300 A (380 / 400 V) 55 °C 750 A (220 / 230 / 240 V) 55 °C 750 A
Rated Operational Current DC-1 (I_e)	(110 V) 1-Pole, 40 °C 1050 A (110 V) 2 Poles in Series, 40 °C 1050 A (220 V) 3 Poles in Series, 40 °C 1050 A (600 V) 3 Poles in Series, 40 °C 1050 A (850 V) 3 Poles in Series, 40 °C 1050 A
Rated Operational Current DC-3 (I_e)	(110 V) 1-Pole, 40 °C 1050 A (110 V) 2 Poles in Series, 40 °C 1050 A (220 V) 3 Poles in Series, 40 °C 1050 A (600 V) 3 Poles in Series, 40 °C 1050 A
Rated Operational Current DC-5 (I_e)	(110 V) 1-Pole, 40 °C 1050 A (110 V) 2 Poles in Series, 40 °C 1050 A (220 V) 3 Poles in Series, 40 °C 1050 A (600 V) 3 Poles in Series, 40 °C 1050 A

Rated Operational Power AC-3 (P_e)	(415 V) 425 kW (440 V) 450 kW (500 V) 520 kW (690 V) 600 kW (1000 V) 400 kW (380 / 400 V) 400 kW (220 / 230 / 240 V) 220 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 1000 A
Rated Short-time Withstand Current Low Voltage (I_{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 6400 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 1300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 3500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 7000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 4500 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 7500 A cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 7000 A
Rated Insulation Voltage (U_i)	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V
Rated Impulse Withstand Voltage (U_{imp})	Main Circuit 8 kV
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-2 / AC-4) 60 cycles per hour (AC-3) 300 cycles per hour
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)	DC Operation 24 ... 60 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 5.5 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 780 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 780 V·A Pull-in at Max. Rated Control Circuit Voltage DC 785 V·A
Power Loss	at Rated Operating Conditions per Pole 50 W
Operate Time	Between Coil De-energization and NC Contact Closing 50 ... 70 ms Between Coil De-energization and NO Contact Opening 53 ... 73 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 52 mm² Rigid Al-Cable 300 mm² Rigid Cu-Cable 300 mm²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm² Flexible 2x 0.75 ... 2.5 mm² Solid 1x 1 ... 4 mm² Stranded 1x 1 ... 4 mm²
Connecting Capacity	Bar 52 mm² Rigid Al-Cable 300 mm² Rigid Cu-Cable 300 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
Tightening Torque	Cable Lug 45 N·m Main Circuit 45 N·m
Terminal Type	Main Circuit: Bars
Product Name	Block Contactor

Technical UL/CSA

NEMA Size	7
Horsepower Rating NEMA	(230 V AC) Three Phase 300 Hp (460 V AC) Three Phase 600 Hp (575 V AC) Three Phase 600 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
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

End Of Life Disassembling Instructions	1SFC100112M0004
Environmental Product Declaration - EPD	1SFC100105D0201

Certificates and Declarations

CB Certificate	SE-82863
cUL Certificate	UL_20111101-E36588
Declaration of Conformity - CE	2CMT2019-005796

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	15 kg

Package Level 1 EAN	7320500543689

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)	4762 >> Nema Contactors

Categories

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