



PRODUCT-DETAILS

AF140N4-30-11-14

AF140N4-30-11-14 Contactor



General Information	
Extended Product Type	AF140N4-30-11-14
Product ID	1SFL447001N1411
EAN	7320500543597
Catalog Description	AF140N4-30-11-14 Contactor
Long Description	The AF140N4-30-11-14 NEMA Contactor is a 3 pole - 1000 V IEC or 600 V UL contactor with double clamp, controlling motors up to 75 kW / 400 V AC (AC-3) or 100 hp / 480 V UL 200 A (AC-1) or 200 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	1SBC100214C0202
Instructions and Manuals	1SFC100003M0201
CAD Dimensional Drawing	2CDC001079B0201

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
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 $\Theta = 40\text{ °C}$ 200 A
Rated Operational Current AC-1 (I _e)	(690 V) 40 °C 200 A (690 V) 70 °C 160 A
Rated Operational Current AC-3 (I _e)	(415 V) 55 °C 140 A (440 V) 55 °C 140 A (500 V) 55 °C 130 A (690 V) 55 °C 80 A (380 / 400 V) 55 °C 140 A (220 / 230 / 240 V) 55 °C 140 A
Rated Operational Current DC-1 (I _e)	(110 V) 2 Poles in Series, 40 °C 160 A (220 V) 3 Poles in Series, 40 °C 160 A
Rated Operational Current DC-3 (I _e)	(110 V) 2 Poles in Series, 40 °C 160 A (220 V) 3 Poles in Series, 40 °C 160 A
Rated Operational Current DC-5 (I _e)	(110 V) 2 Poles in Series, 40 °C 160 A (220 V) 3 Poles in Series, 40 °C 160 A
Rated Operational Power AC-3 (P _e)	(415 V) 75 kW (440 V) 90 kW (500 V) 90 kW (690 V) 75 kW (380 / 400 V) 75 kW (220 / 230 / 240 V) 37 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	gG Type Fuses 315 A

Devices

Rated Short-time Withstand Current Low Voltage (I_{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 1168 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 477 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1460 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 674 A
Maximum Breaking Capacity	$\cos \phi=0.45$ ($\cos \phi=0.35$ for $I_e > 100$ A) at 440 V 3000 A $\cos \phi=0.45$ ($\cos \phi=0.35$ for $I_e > 100$ A) at 690 V 1500 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) 150 cycles per hour (AC-3) 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_c Min. ... 1.1 x U_c Max. (at $\theta \leq 70$ °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 16.1 V-A Holding at Max. Rated Control Circuit Voltage 60 Hz 16.1 V-A Holding at Max. Rated Control Circuit Voltage DC 4 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 205 V-A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 205 V-A Pull-in at Max. Rated Control Circuit Voltage DC 204 W
Power Loss	at Rated Operating Conditions per Pole 9 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 2x 0.75 ... 2.5 mm ² Solid 2x 1 ... 4 mm ² Stranded 2x 1 ... 4 mm ²
Connecting Capacity	Flexible 2 x 10 ... 70 mm ² Rigid Cu-Cable 1 x 10 ... 95 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
Tightening Torque	Cable Lug 9 N·m Main Circuit 8 N·m
Terminal Type	Double Clamp
Product Name	Block Contactor

Technical UL/CSA

NEMA Size	4
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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
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	1SFC100112M0001

Certificates and Declarations	
A2L Certificate – UL	9AKK108468A6693
CB Certificate	SEMKO_SE-70479M1
Declaration of Conformity - CE	2CMT2015-005439
UL Certificate	20120925-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	7320500543597

Classifications	
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

