



 PRODUCT-DETAILS

AF140N4-30-11-12

AF140N4-30-11-12 Contactor



General Information

Extended Product Type	AF140N4-30-11-12
Product ID	1SFL447001N1211
EAN	7320500543573
Catalog Description	AF140N4-30-11-12 Contactor

Long Description	<p>The AF140N4-30-11-12 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 (48-130 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.</p>
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Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900
Product Main Type	AF140N4

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

Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 4 V-A Holding at Max. Rated Control Circuit Voltage 60 Hz 4 V-A Holding at Max. Rated Control Circuit Voltage DC 2.5 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 170 V-A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 170 V-A Pull-in at Max. Rated Control Circuit Voltage DC 130 W
Coil Operating Limits	(acc. to IEC 60947-4-1) 0.85 x Uc Min. ... 1.1 x Uc Max. (at $\theta \leq 70^\circ\text{C}$)
Connecting Capacity	Flexible 1 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 2x 0.75 ... 2.5 mm ² Flexible 1x 0.75 ... 2.5 mm ² Solid 2x 1 ... 4 mm ² Stranded 1x 1 ... 4 mm ²
Connecting Capacity Main Circuit	Flexible 2 x 10 ... 70 mm ² Rigid Cu-Cable 2 x 10 ... 95 mm ²
Connecting Terminals (delivered in open position)	YES
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 3000 A cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 1500 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
Maximum Mechanical Switching Frequency	300 cycles per hour
Mechanical Durability	5 million
Mounted Auxiliary Contacts	1 NO, 1 NC
Number of Auxiliary Contacts NC	1
Number of Auxiliary Contacts NO	1
Number of Main Contacts NC	0
Number of Main Contacts NO	3
Number of Poles	3
Operate Time	Between Coil De-energization and NO Contact Opening 37 ... 47 ms Between Coil Energization and NO Contact Closing 25 ... 55 ms
Power Loss	at Rated Operating Conditions per Pole 9 W

Rated Breaking Capacity AC-3	8 x I _e AC-3
Rated Control Circuit Voltage (U _c)	50 Hz 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 V
Rated Frequency (f)	Main Circuit 50 / 60 Hz
Rated Frequency Limits	25 ... 400 Hz
Rated Impulse Withstand Voltage (U _{imp})	Main Circuit 8 kV
Rated Insulation Voltage (U _i)	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V
Rated Making Capacity AC-3	10 x I _e AC-3
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 Operational Voltage	Main Circuit 1000 V
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
Short-Circuit Protective Devices	gG Type Fuses 315 A
Standards	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N° 14
Terminal Type	Double Clamp
Tightening Torque	Cable Lug 9 N·m Main Circuit 8 N·m

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
Conventional Free-air Thermal Current (I _{th})	acc. to IEC 60947-4-1, Open Contactors Θ = 40 °C 200 A

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
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 Instructions	1SFC100112M0001
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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	7320500543573

Classifications

eClass	V11.0 : 27371003
ETIM 6	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 8	EC000066 - Power contactor, AC switching
ETIM 9	EC000066 - Power contactor, AC switching
IDEA Granular Category Code (IGCC)	4762 >> Nema Contactors
Object Classification Code	Q
UNSPSC	39121529

Categories

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

