PRODUCT-DETAILS

AF140-30-00-12

AF140-30-00-12 Contactor



General Information

Extended Product Type	AF140-30-00-12
Product ID	1SFL447001R1200
EAN	7320500477038
Catalog Description	AF140-30-00-12 Contactor
Long Description	The AF140-30-00-12 is a 3 pole - 690 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 and switching power circuits up to 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.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

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Popular Downloads

EPLAN Data	9AAC174539_EPLAN
Data Sheet, Technical Information	1SBC100214C0202
Data Sheet, Technical Information (Part 2)	1SAC200017M0002
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
Dimension Diagram	1SFB535001G1051

Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	0
Number of Auxiliary Contacts NC	0
Number of Poles	3P
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 Θ = 40 °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 AC-3e (I_e)	(415 V) 60 °C 140 A (440 V) 60 °C 140 A (500 V) 60 °C 130 A (690 V) 60 °C 80 A (380 / 400 V) 60 °C 140 A (220 / 230 / 240 V) 60 °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

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	(690 V) 75 kW (380 / 400 V) 75 kW (220 / 230 / 240 V) 37 kW
Rated Operational Power AC-3e (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 Ie AC-3
Rated Breaking Capacity AC-3e	8.5 x Ie AC-3e
Rated Making Capacity AC-3	10 x Ie AC-3
Rated Making Capacity AC-3e	12 x Ie AC-3e
Short-Circuit Protective Devices	gG Type Fuses 315 A
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 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
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
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 Uc Min. ... 1.1 x Uc Max. (at θ ≤ 70 °C)
Rated Control Circuit Voltage (U_c)	50 Hz 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 V
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 180 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 180 V·A Pull-in at Max. Rated Control Circuit Voltage DC 150 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 mm² Rigid Cu-Cable 1 x 10 ... 95 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 2x0.75 ... 2.5 mm² Solid 2 x 1 ... 4 mm² Stranded 2 x 1 .... 4 mm²
Connecting Capacity	Flexible 2 x 10 ... 70 mm² Rigid Cu-Cable 1 x 10 ... 95 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 9 N·m Main Circuit 8 N·m
Terminal Type	Double Clamp

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Product Name	Block Contactor

Technical UL/CSA

NEMA Size	4
Continuous Current Rating NEMA	135 A
Horsepower Rating NEMA	(200 V AC) Three Phase 40 Hp (230 V AC) Three Phase 50 Hp (460 V AC) Three Phase 100 Hp (575 V AC) Three Phase 100 Hp
Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 200 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 40 hp (208 V AC) Three Phase 40 hp (220 ... 240 V AC) Three Phase 50 hp (440 ... 480 V AC) Three Phase 100 hp (550 ... 600 V AC) Three Phase 125 hp
Full Load Amps Motor Use	(440 ... 480 V AC) Three Phase 124 A (550 ... 600 V AC) Three Phase 125 A

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

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Declaration	2CMT2021-006277
RoHS Information	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)

ABB EcoSolutions

ABB EcoSolutions	Yes
ABB Site Meeting 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
End Of Life Disassembling Instructions	1SFC100112M0001
Environmental Product Declaration - EPD	1SFC100092D0201 2TFP200059A1001
Improved Energy Efficiency for Customers	Product Efficiency - Product requires less energy to operate compared to similar product on market or older products from the same line
Recyclability Rate of the	Design for Closing Resource Loops - Standard EN45555 - 87.8 %

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Product acc. to EN45555	
Sustainable Material Content in Product (wt. %)	Recycled Metal - 37 %

Certificates and Declarations

A2L Certificate – UL	9AKK108468A6693
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
GL Certificate	DNV_E-14043
LR Certificate	LR_14_70011(E1)
PRS Certificate	TE_2092_880423_16
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
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	7320500477038

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)	4758 >> Iec Contactors
E-Number (Finland)	3706188

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Accessories

Identifier	Description	Type Quantity		Unit Of Measure
1SFN034403R1000	VM140/190 Mechanical Interlock Unit	VM140/190	1	piece
1SFN074203R1000	LY140 Connecting Strip	LY140	1	piece
1SFN074207R1000	LW140 Terminal Enlargement	LW140	1	piece
1SFN074208R1000	LD146-30 Connection Module	LD146-30	1	piece
1SFN074210R1000	LX140 Terminal Extension	LX140	1	piece
1SFN074211R1000	LL146-30 Connection Socket	LL146-30	1	piece
1SFN084206R1000	BEA140/XT2 Connection Set	BEA140/XT2	1	piece
1SFN084206R1001	BEA140/XT4 Connection Set	BEA140/XT4	1	piece
1SFN084206R1002	BEA140/XT3 Connection Set	BEA140/XT3	1	piece
1SFN084211R1000	BER140-4 Connection Set	BER140-4	1	piece
1SFN084214R1000	BEP140-30 Connection Set	BEP140-30	1	piece
1SFN084413R1000	BEY140-4 Connection Set	BEY140-4	1	piece
1SFN094200R1000	PR146-1 Adapter Plate	PR146-1	1	piece
1SFN124203R1000	LT140-30L Terminal Shroud	LT140-30L	1	piece
1SFN074208R2000	LD146-40 Connection Module	LD146-40	1	piece
1SFN074211R2000	LL146-40 connection sockets kit	LL146-40	1	piece
1SFN084214R2000	BEP140-40 Connection Set	BEP140-40	1	piece
1SFN124203R2000	LT140-40L Terminal Shroud	LT140-40L	1	piece

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF140



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