PRODUCT-DETAILS

AF140B-30-22-13

AF140B-30-22-13 Contactor



General Information

Extended Product Type	AF140B-30-22-13
Product ID	1SFL447063R1322
EAN	7320500511404
Catalog Description	AF140B-30-22-13 Contactor
Long Description	A 3-pole Contactor suitable for Railway applications such as Motor starting, Isolation, By-pass and Distribution application up to max 690 V. Operated with wide control voltage range 100-250 V, 50 /60 Hz and DC

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

Data Sheet, Technical Information	1SBC100214C0202
Data Sheet, Technical	1SAC200017M0002

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Subject to change without notice

Information (Part 2)	
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	2
Number of Auxiliary Contacts NC	2
Number of Poles	3P
Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 No. 60947-4-1, IEC 60077-1 (applicable parts), IEC 60077-2 (applicable parts), EN 50155 (applicable parts), TR CU 001/2011, IEC 61373, For compliance confirmation on applicable parts based on your application and combination, please consult your ABB sales representatives.
Rated Operational Voltage	Main Circuit 1000 V
Rated Frequency (f)	Main Circuit 50 / 60 Hz
Rated Operational Current AC-1 (I_e)	(690 V) 40 °C 200 A (690 V) 60 °C 175 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 200 A (110 V) 2 Poles in Series, 60 °C 175 A (110 V) 2 Poles in Series, 70 °C 160 A (110 V) 3 Poles in Series, 40 °C 200 A (110 V) 3 Poles in Series, 60 °C 175 A (110 V) 3 Poles in Series, 70 °C 160 A (175 V) 2 Poles in Series, 40 °C 200 A (175 V) 2 Poles in Series, 60 °C 175 A (175 V) 2 Poles in Series, 70 °C 160 A (220 V) 3 Poles in Series, 40 °C 200 A (220 V) 3 Poles in Series, 60 °C 175 A (220 V) 3 Poles in Series, 70 °C 160 A (260 V) 3 Poles in Series, 40 °C 200 A (260 V) 3 Poles in Series, 60 °C 175 A

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	(260 V) 3 Poles in Series, 70 °C 160 A (72 V) 1-Pole, 40 °C 200 A (72 V) 1-Pole, 60 °C 175 A (72 V) 1-Pole, 70 °C 160 A (72 V) 2 Poles in Series, 40 °C 200 A (72 V) 2 Poles in Series, 60 °C 175 A (72 V) 2 Poles in Series, 70 °C 160 A (72 V) 3 Poles in Series, 40 °C 200 A (72 V) 3 Poles in Series, 60 °C 175 A (72 V) 3 Poles in Series, 70 °C 160 A (90 V) 1 Pole, 40 °C 200 A (90 V) 1 Pole, 60 °C 175 A (90 V) 1 Pole, 70 °C 160 A
Rated Operational Current DC-3 (I_e)	(110 V) 2 Poles in Series, 40 °C 160 A (110 V) 2 Poles in Series, 60 °C 160 A (110 V) 2 Poles in Series, 70 °C 160 A (110 V) 3 Poles in Series, 40 °C 160 A (110 V) 3 Poles in Series, 60 °C 160 A (110 V) 3 Poles in Series, 70 °C 160 A (220 V) 3 Poles in Series, 40 °C 160 A (220 V) 3 Poles in Series, 60 °C 160 A (220 V) 3 Poles in Series, 70 °C 160 A (72 V) 2 Poles in Series, 40 °C 160 A (72 V) 2 Poles in Series, 60 °C 160 A (72 V) 2 Poles in Series, 70 °C 160 A (72 V) 3 Poles in Series, 40 °C 160 A (72 V) 3 Poles in Series, 60 °C 160 A (72 V) 3 Poles in Series, 70 °C 160 A
Rated Operational Current DC-5 (I_e)	(110 V) 2 Poles in Series, 40 °C 160 A (110 V) 2 Poles in Series, 60 °C 160 A (110 V) 2 Poles in Series, 70 °C 160 A (110 V) 3 Poles in Series, 40 °C 160 A (110 V) 3 Poles in Series, 60 °C 160 A (110 V) 3 Poles in Series, 70 °C 160 A (220 V) 3 Poles in Series, 40 °C 160 A (220 V) 3 Poles in Series, 60 °C 160 A (220 V) 3 Poles in Series, 70 °C 160 A (72 V) 2 Poles in Series, 40 °C 160 A (72 V) 2 Poles in Series, 60 °C 160 A (72 V) 2 Poles in Series, 70 °C 160 A (72 V) 3 Poles in Series, 40 °C 160 A (72 V) 3 Poles in Series, 60 °C 160 A (72 V) 3 Poles in Series, 70 °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 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
Rated Short-time Withstand Current Low Voltage (I_{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 674 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 1460 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1168 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 477 A

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Rated Insulation Voltage (U_i)	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V
Maximum Electrical Switching Frequency	(AC-1) 300 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 / 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 6 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 6 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 130 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 130 V·A Pull-in at Max. Rated Control Circuit Voltage DC 135 V·A Pull-in at Max. Rated Control Circuit Voltage DC 135 W
Power Loss	9 W at Rated Operating Conditions per Pole 9 W
Operate Time	Between Coil Energization and NO Contact Closing 25 ... 55 ms
Connecting Capacity Main Circuit	Flexible 2 x 10 ... 70 mm² Rigid Cu-Cable 2 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 2 x 10 ... 95 mm²
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP40 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	Main Circuit: Bars
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 ... 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	(200 ... 208 V AC) Three Phase 120 A (220 ... 240 V AC) Three Phase 130 A (440 ... 480 V AC) Three Phase 124 A (550 ... 600 V AC) Three Phase 125 A

Environmental

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Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 55 °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	No declaration needed
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
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 Product acc. to EN45555	Design for Closing Resource Loops - Standard EN45555 - 87.8 %
Sustainable Material Content in Product (wt. %)	Recycled Metal - 37 %

Certificates and Declarations

A2L Certificate – UL	9AKK108468A6693
CB Certificate	SEMKO_SE-70479M1
CQC Certificate	CQC2013010304604055
Declaration of Conformity - CCC	2020980304001304
Declaration of Conformity - CE	2CMT2015-005440
Declaration of Conformity - UKCA	2CMT2020-006124
EAC Certificate	9AKK107046A8618
UL Certificate	20120925-E36588

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	207 mm
Package Level 1 Depth /	216 mm

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Length	
Package Level 1 Height	150 mm
Package Level 1 Gross Weight	1.75 kg
Package Level 1 EAN	7320500511404

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)	4755 >> Contactors
E-Number (Sweden)	3210356

Categories

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



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