



 PRODUCT-DETAILS

AF146B-30-22-12

AF146B-30-22-12 Contactor



General Information

Extended Product Type	AF146B-30-22-12
Product ID	1SFL467063R1222
EAN	7320500511336
Catalog Description	AF146B-30-22-12 Contactor

Long Description	<p>The AF146B-30-22-12 is a 3 pole - 1000 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and standard ferrules, controlling motors up to 75 kW / 400 V AC (AC-3) or 100 hp / 480 V UL and switching power circuits up to 225 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

Popular Downloads

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

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)	(1000 V) 40 °C 225 A (1000 V) 55 °C 200 A (1000 V) 60 °C 200 A (1000 V) 70 °C 175 A (690 V) 40 °C 225 A (690 V) 55 °C 200 A (690 V) 60 °C 200 A (690 V) 70 °C 175 A
Rated Operational Current AC-3 (I _e)	(415 V) 55 °C 146 A (440 V) 55 °C 130 A (500 V) 55 °C 130 A (690 V) 55 °C 93 A (1000 V) 55 °C 60 A (380 / 400 V) 55 °C 146 A (220 / 230 / 240 V) 55 °C 146 A
Rated Operational Current AC-3e (I _e)	(415 V) 60 °C 146 A (440 V) 60 °C 146 A (500 V) 60 °C 130 A (690 V) 60 °C 93 A (1000 V) 60 °C 54 A (380 / 400 V) 60 °C 146 A (220 / 230 / 240 V) 60 °C 146 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 200 A

	(110 V) 2 Poles in Series, 70 °C 175 A (110 V) 3 Poles in Series, 40 °C 200 A (110 V) 3 Poles in Series, 60 °C 200 A (110 V) 3 Poles in Series, 70 °C 175 A (175 V) 2 Poles in Series, 40 °C 200 A (175 V) 2 Poles in Series, 60 °C 200 A (175 V) 2 Poles in Series, 70 °C 175 A (220 V) 3 Poles in Series, 40 °C 200 A (220 V) 3 Poles in Series, 60 °C 200 A (220 V) 3 Poles in Series, 70 °C 175 A (260 V) 3 Poles in Series, 40 °C 200 A (260 V) 3 Poles in Series, 60 °C 200 A (260 V) 3 Poles in Series, 70 °C 175 A (72 V) 1-Pole, 40 °C 200 A (72 V) 1-Pole, 60 °C 200 A (72 V) 1-Pole, 70 °C 175 A (72 V) 2 Poles in Series, 40 °C 200 A (72 V) 2 Poles in Series, 60 °C 200 A (72 V) 2 Poles in Series, 70 °C 175 A (72 V) 3 Poles in Series, 40 °C 200 A (72 V) 3 Poles in Series, 60 °C 200 A (72 V) 3 Poles in Series, 70 °C 175 A (90 V) 1 Pole, 40 °C 200 A (90 V) 1 Pole, 60 °C 200 A (90 V) 1 Pole, 70 °C 175 A
Rated Operational Power AC-3 (P _e)	(415 V) 75 kW (440 V) 90 kW (500 V) 90 kW (690 V) 90 kW (1000 V) 75 kW (380 / 400 V) 75 kW (220 / 230 / 240 V) 45 kW
Rated Operational Power AC-3e (P _e)	(415 V) 75 kW (440 V) 90 kW (500 V) 90 kW (690 V) 90 kW (1000 V) 75 kW (380 / 400 V) 75 kW (220 / 230 / 240 V) 45 kW
Rated Breaking Capacity AC-3	8 x I _e AC-3
Rated Breaking Capacity AC-3e	8.5 x I _e AC-3e
Rated Making Capacity AC-3	10 x I _e AC-3
Rated Making Capacity AC-3e	12 x I _e 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 225 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
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 U _c Min. ... 1.1 x U _c Max. (at θ ≤ 70 °C)
Rated Control Circuit Voltage (U _c)	50 Hz / 60 Hz 48 ... 130 V DC Operation 48 ... 130 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 15.1 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 15.1 V·A Holding at Max. Rated Control Circuit Voltage DC 2.4 V·A Holding at Max. Rated Control Circuit Voltage DC 2.4 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 320 V·A

Pull-in at Max. Rated Control Circuit Voltage 60 Hz 320 V-A
 Pull-in at Max. Rated Control Circuit Voltage DC 435 V-A
 Pull-in at Max. Rated Control Circuit Voltage DC 435 W

Power Loss	10 W at Rated Operating Conditions per Pole 10 W
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 2x 0.75 ... 2.5 mm ² Flexible 2x0.75 ... 2.5 mm ² Solid 2 x 1 ... 4 mm ² Stranded 2 x 1 4 mm ²
Connecting Capacity	Flexible 2 x 10 ... 70 mm ² Rigid Cu-Cable 2 x 10 ... 95 mm ²
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

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(1000 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

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 UL 2799 Zero Waste To Landfill Validation available
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 Product Efficiency - Product considered more energy-efficient 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 %

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
KC Certificate	9AKK107046A9910
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	7320500511336

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)	3210437

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SFN074207R1000	LW140 Terminal Enlargement	LW140	1	piece
1SFN074210R1000	LX140 Terminal Extension	LX140	1	piece
1SFN084211R1000	BER140-4 Connection Set	BER140-4	1	piece
1SFN010820R1011	CAL19-11 Auxiliary Contact Block	CAL19-11	1	piece
1SFN010820R3311	CAL19-11B Auxiliary Contact Block	CAL19-11B	1	piece
1SFN030300R1000	VM19 Mechanical Interlock Unit	VM19	1	piece
1SFN034403R1000	VM140/190 Mechanical Interlock Unit	VM140/190	1	piece
1SFN010829R1011	CAL19-11-RT Auxiliary Contact Block	CAL19-11-RT	1	piece
1SFN010829R3311	CAL19-11B-RT Auxiliary Contact Block	CAL19-11B-RT	1	piece
1SFN124203R1000	LT140-30L Terminal Shroud	LT140-30L	1	piece

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF146



360°

