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**PRODUCT-DETAILS****AF09B-22-00-14****AF09B-22-00-14 250-500V50/60HZ-DC  
Contactor**

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**General Information**

Extended Product Type	AF09B-22-00-14
Product ID	1SBL137561R1400
EAN	3471523123144
Catalog Description	AF09B-22-00-14 250-500V50/60HZ-DC Contactor
Long Description	<p>The AF09B-22-00-14 is a 4 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 4 kW / 400 V AC (AC-3) and switching power circuits up to 25 A (AC-1) or 25 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.</p>

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**Ordering**

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

## Popular Downloads

Data Sheet, Technical Information	1SBC100220C0201
Instructions and Manuals	1SBC101027M6801
Instructions and Manuals (Part 2)	1SAC200017M0002
CAD Dimensional Drawing	2CDC001079B0201

## Dimensions

Product Net Width	45 mm
Product Net Depth / Length	77 mm
Product Net Height	86 mm
Product Net Weight	0.31 kg

## Technical

Number of Main Contacts NO	2
Number of Main Contacts NC	2
Number of Auxiliary Contacts NO	0
Number of Auxiliary Contacts NC	0
Number of Poles	4P
Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60335-2-40 LZGH2 A2L, UL 60947-1, UL 60947-4-1, CSA C22.2 No. 60335-2-40 LZGH2 A2L, CSA C22.2 No. 60947-1, 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 690 V
Rated Frequency (f)	Control Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I <sub>th</sub> )	acc. to IEC 60947-4-1, Open Contactors Θ = 40 °C 35 A
Rated Operational Current AC-1 (I <sub>e</sub> )	(1000 V) 60 °C 25 A (690 V) 40 °C 25 A (690 V) 70 °C 22 A
Rated Operational Current AC-3 (I <sub>e</sub> )	(415 V) 60 °C 9 A (440 V) 60 °C 9 A (500 V) 60 °C 9.5 A (690 V) 60 °C 7 A (380 / 400 V) 60 °C 9 A (220 / 230 / 240 V) 60 °C 9 A
Rated Operational Power AC-3 (P <sub>e</sub> )	(400 V) 4 kW (415 V) 4 kW (440 V) 4 kW (500 V) 5.5 kW (690 V) 5.5 kW (380 / 400 V) 4 kW (220 / 230 / 240 V) 2.2 kW
Rated Short-time Withstand Current Low	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 150 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 35 A

Voltage (I <sub>cw</sub> )	at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 60 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 80 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 250 A cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 106 A
Rated Insulation Voltage (U <sub>i</sub> )	acc. to IEC 60947-4-1 690 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	6 kV
Rated Control Circuit Voltage (U <sub>c</sub> )	50 Hz 250 ... 500 V 60 Hz 250 ... 500 V DC Operation 250 ... 500 V
Power Loss	at Rated Operating Conditions AC-1 per Pole 0.8 W at Rated Operating Conditions AC-3 per Pole 0.1 W
Mounting on DIN Rail	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715
Mounting by Screws (not supplied)	2 x M4 Screws Placed Diagonally
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 0.75 ... 6 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 4 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Rigid Solid 1/2x 1 ... 4 mm <sup>2</sup> Rigid Stranded 1/2x 1 ... 6 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Rigid Solid 1/2x 1 ... 2.5 mm <sup>2</sup> Rigid Stranded 1/2x 1 ... 2.5 mm <sup>2</sup>
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Rigid Solid 1/2x 1 ... 2.5 mm <sup>2</sup> Rigid Stranded 1/2x 1 ... 2.5 mm <sup>2</sup>
Wire Stripping Length	Control Circuit 10 mm Main Circuit 10 mm
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 IP20
Tightening Torque	Control Circuit 1.2 N·m Main Circuit 1.5 N·m
Terminal Type	Screw Terminals
Product Name	Block Contactor

## Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 25 A
Connecting Capacity Main Circuit UL/CSA	Rigid Solid 1/2x 16-10 AWG Rigid Stranded 1/2x 16-10 AWG
Connecting Capacity Auxiliary Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG
Connecting Capacity Control Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG
Tightening Torque UL/CSA	Control Circuit 11 in-lb Main Circuit 13 in-lb

## Environmental

Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q

Maximum Operating Altitude Permissible	Without Derating 3000 m
Shock and Vibration Withstand acc. to IEC 61373	Category 1, Class B
Pollution Degree	3

## 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	No non-hazardous waste is sent to a landfill
End Of Life Disassembling Instructions	1SBC101080M6801
Environmental Product Declaration - EPD	1SBD250584E3000
Improved Energy Efficiency for Customers	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 - 92.7 %

## Certificates and Declarations

A2L Certificate – UL	9AKK108469A4875 9AKK108469A4879
CB Certificate	CB_SE-117714
CCC Certificate	CCC_2024010304656669
CQC Certificate	CQC2010010304445624
Declaration of Conformity - CCC	2020980304001253
Declaration of Conformity - CE	1SBD250002U1000
Declaration of Conformity - UKCA	1SBD250033U1000
KC Certificate	KC_HW02016-15007C
UL Certificate	UL-US-L319322-13-72119002-5 UL-CA-L319322-43-72119002-6
UL Listing Card	UL_E319322

## Container Information

Package Level 1 Units	box 1 piece
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Package Level 1 Width	87 mm
Package Level 1 Depth / Length	79 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.31 kg
Package Level 1 EAN	3471523123144

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### External Classifications and Standards

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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

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### Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1ISBN010110R1010	CA4-10 Auxiliary Contact Block	CA4-10	1	piece
1ISBN010110T1010	CA4-10-T Auxiliary Contact Block	CA4-10-T	1	piece
1ISBN010110R1001	CA4-01 Auxiliary Contact Block	CA4-01	1	piece
1ISBN010110T1001	CA4-01-T Auxiliary Contact Block	CA4-01-T	1	piece
1ISBN010120R1011	CAL4-11 Auxiliary Contact Block	CAL4-11	1	piece
1ISBN010120T1011	CAL4-11-T Auxiliary Contact Block	CAL4-11-T	1	piece
1ISBN010140R1022	CA4-22E Auxiliary Contact Block	CA4-22E	1	piece
1ISBN010140R1031	CA4-31E Auxiliary Contact Block	CA4-31E	1	piece
1ISBN010140R1040	CA4-40E Auxiliary Contact Block	CA4-40E	1	piece
1ISBN010140R1004	CA4-04E Auxiliary Contact Block	CA4-04E	1	piece
1ISBN010140R1322	CA4-22U Auxiliary Contact Block	CA4-22U	1	piece
1ISBN010140R1122	CA4-22M Auxiliary Contact Block	CA4-22M	1	piece
1ISBN010151R1011	CAT4-11E Auxiliary Contact / Coil Terminal Block	CAT4-11E	1	piece
1ISBN010140R1331	CA4-31U Auxiliary Contact Block	CA4-31U	1	piece
1ISBN010140R1131	CA4-31M Auxiliary Contact Block	CA4-31M	1	piece
1ISBN010151R1111	CAT4-11M Auxiliary Contact / Coil Terminal Block	CAT4-11M	1	piece
1ISBN010140R1340	CA4-40U Auxiliary Contact Block	CA4-40U	1	piece
1ISBN010140R1113	CA4-13M Auxiliary Contact Block	CA4-13M	1	piece
1ISBN010151R1311	CAT4-11U Auxiliary Contact / Coil Terminal Block	CAT4-11U	1	piece
1ISBN070156T1000	LDC4 Additional Coil Terminal Block	LDC4	1	piece
1ISBN010140R1104	CA4-04M Auxiliary Contact Block	CA4-04M	1	piece
1ISBN010134R1011	CAL4-11K Auxiliary Contact Block	CAL4-11K	1	piece
1ISBN110108T1000	BX4 Protective Cover	BX4	1	piece
1ISBN010146R1104	CA4-04MK Auxiliary Contact Block	CA4-04MK	1	piece
1ISBN010146R1113	CA4-13MK Auxiliary Contact Block	CA4-13MK	1	piece
1ISBN070159T1000	LDC4K Additional Coil Terminal Block	LDC4K	1	piece
1ISBN010160R1001	CA4-01K Auxiliary Contact Block	CA4-01K	1	piece
1ISBN010146R1022	CA4-22EK Auxiliary Contact Block	CA4-22EK	1	piece
1ISBN010160R1010	CA4-10K Auxiliary Contact Block	CA4-10K	1	piece
1ISBN010146R1122	CA4-22MK Auxiliary Contact Block	CA4-22MK	1	piece
1ISBN010160T1001	CA4-01K-T Auxiliary Contact Block	CA4-01K-T	1	piece
1ISBN010160T1010	CA4-10K-T Auxiliary Contact Block	CA4-10K-T	1	piece
1ISBN010146R1031	CA4-31EK Auxiliary Contact Block	CA4-31EK	1	piece
1ISBN010146R1131	CA4-31MK Auxiliary Contact Block	CA4-31MK	1	piece
1ISBN010146R1040	CA4-40EK Auxiliary Contact Block	CA4-40EK	1	piece

## Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF09

