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 PRODUCT-DETAILS

# AX09-30-10-81

## AX09-30-10-81 24V 50/60Hz Contactor




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**General Information**

Extended Product Type	AX09-30-10-81
Product ID	1SBL901074R8110
EAN	3471522391810
Catalog Description	AX09-30-10-81 24V 50/60Hz Contactor
Long Description	AX09...AX25 contactors are mainly used for controlling 3-phase motors and power circuits up to 690 V AC. These contactors are of the block type design with: – 3 main poles and 1 built-in auxiliary contact – control circuit: AC operated – add-on auxiliary contact blocks for front or side mounting and a wide range of accessories.

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**Ordering**

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

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**Popular Downloads**

EPLAN Data	9AAC177924_EPLAN
Data Sheet, Technical	1SBC100187L0203

Information

Instructions and Manuals	9AKK107492A7057
CAD Dimensional Drawing	2CDC001079B0201

**Dimensions**

Product Net Width	44 mm
Product Net Depth / Length	74 mm
Product Net Height	74 mm
Product Net Weight	0.326 kg

**Technical**

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	1
Number of Auxiliary Contacts NC	0
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Frequency (f)	Auxiliary 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 $\Theta = 40\text{ }^{\circ}\text{C}$ 24 A acc. to IEC 60947-5-1, $\Theta = 40\text{ }^{\circ}\text{C}$ 16 A
Rated Operational Current AC-1 (I <sub>e</sub> )	(220 / 240 V) 55 $^{\circ}\text{C}$ 22 A (690 V) 40 $^{\circ}\text{C}$ 22 A (690 V) 70 $^{\circ}\text{C}$ 18 A
Rated Operational Current AC-3 (I <sub>e</sub> )	(415 V) 55 $^{\circ}\text{C}$ 9 A (440 V) 55 $^{\circ}\text{C}$ 9 A (500 V) 55 $^{\circ}\text{C}$ 9 A (690 V) 55 $^{\circ}\text{C}$ 7 A (380 / 400 V) 55 $^{\circ}\text{C}$ 9 A (220 / 230 / 240 V) 55 $^{\circ}\text{C}$ 9 A
Rated Operational Current AC-15 (I <sub>e</sub> )	(500 V) NC 2 (500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (380 / 400 V) 3 A (400 / 440 V) 2 A
Rated Operational Current DC-13 (I <sub>e</sub> )	(24 V) 6 A / 144 W (110 V) 1.1 A / 121 W (125 V) 1.1 A / 138 W (220 V) 0.55 A / 121 W (250 V) 0.55 A / 138 W (400 V) 2.8 A / 134 W (500 V) 2 A / 144 W
Rated Operational Power AC-3 (P <sub>e</sub> )	(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 Voltage (I <sub>cw</sub> )	at 40 $^{\circ}\text{C}$ Ambient Temp, in Free Air, from a Cold State 10 s 100 A at 40 $^{\circ}\text{C}$ Ambient Temp, in Free Air, from a Cold State 15 min 26 A at 40 $^{\circ}\text{C}$ Ambient Temp, in Free Air, from a Cold State 1 min 50 A

	at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 250 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 60 A for 0.1 s 140 A for 1 s 100 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 250 A cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 90 A
Rated Insulation Voltage (U <sub>i</sub> )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	Auxiliary Circuit 6 kV
Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour (AC-15) 1200 cycles per hour (AC-3) 1200 cycles per hour (DC-13) 900 cycles per hour
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U <sub>c</sub> )	50 Hz 24 V 60 Hz 24 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
Operate Time	Between Coil De-energization and NC Contact Closing 9 ... 16 ms Between Coil De-energization and NO Contact Opening 4 ... 11 ms Between Coil Energization and NC Contact Opening 7 ... 21 ms Between Coil Energization and NO Contact Closing 10 ... 26 ms
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 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	Auxiliary Circuit 1 N·m Control Circuit 1 N·m Main Circuit 1 N·m
Terminal Type	Screw Terminals
Product Name	Block Contactor

### Technical UL/CSA

General Use Rating UL/CSA	(600 V AC) 21 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 1/2 hp (200 ... 208 V AC) Three Phase 2 hp (220 ... 240 V AC) Three Phase 2 hp (240 V AC) Single Phase 1.5 hp (440 ... 480 V AC) Three Phase 5 hp (550 ... 600 V AC) Three Phase 7.5 hp
Tightening Torque UL/CSA	Auxiliary Circuit 9 in·lb Control Circuit 9 in·lb Main Circuit 9 in·lb
Full Load Amps Motor Use	(120 V AC) Single Phase 9.8 A (200 ... 208 V AC) Three Phase 7.8 A (220 ... 240 V AC) Three Phase 6.8 A (240 V AC) Single Phase 10 A (440 ... 480 V AC) Three Phase 7.6 A (550 ... 600 V AC) Three Phase 9 A

### Environmental

Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay -25 ... 55 °C Close to Contactor without Thermal O/L Relay -40 ... 70 °C Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °C
Climatic Withstand	according to IEC 60068-2-30 and 60068-2-11 - UTE C 63-100 Specification II
Maximum Operating	Without Derating 3000 m

Altitude Permissible

**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
SCIP	8cad49b0-afcb-429e-b091-47ef79e34f5f Bulgaria
Simplified SCIP	031a8b46-ccd0-44b6-843d-c543582bfa7e Croatia 07d933ca-3aaa-4f59-9e2d-e46452e0cb2b Italy 0cb5dbcc-a638-4fdd-9f07-9a8777bbaac6 Sweden 19efb89d-f63e-4323-9fef-a67a08ce6412 Poland 228db256-fa05-4b8c-b62b-12778f46c967 Denmark 42061676-ce1f-4c02-8c7a-297bbfd95a51 Sweden 46bb63f2-68e4-4965-a13e-bb022b105796 Norway 557db191-cae7-41e6-aec6-e6b468661476 Czech Republic 5fc96c81-64d4-400e-8264-4c57d3bfea0d Netherlands 78c30218-c067-4455-a265-cfa830cbb463 Greece 7a6bf7ab-3a5d-4fe3-8697-60c8d88b042d France 7f5dcd8a-f21c-4103-bde4-2adaa4a6dc61 Germany a4ef20e6-7099-4c49-a7b5-61ef60c95a38 Poland adfe3d36-f0f1-4e9a-9a95-99642efd6b22 France b1394784-7378-42bb-a071-b5add9f45c31 Portugal b96bf199-a8c1-4677-9264-e98b9d55ead8 Germany c09efbca-091e-4820-be9b-29c719b6e0f9 Finland c3fac397-1b92-4dd1-833b-f5dff3969ab4 Poland c7fac66c-a236-41f0-a133-b29b9c3fb387 Belgium cba2350e-e963-4ab1-aa4b-777021d4cd21 Spain cbf93904-9097-4d28-8f6c-8262d0b50b54 Belgium daf774ec-35df-4b20-b932-d9377be87bd1 Hungary dbb52891-3a09-4a92-8fc9-d7bf3b78e7f8 Germany e29f63e7-426a-4c37-ac0d-43564467b09e Germany edfe5b5f-7af1-440b-81c3-c2fc02e67c56 Germany fd6718d8-9688-471d-b8b8-e1b26e4fb875 Estonia ff2287c7-f570-4aaf-bcb5-2b106e80bdf1 Hungary
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**

Environmental Product Declaration - EPD	No Declaration Needed
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**Certificates and Declarations**

CB Certificate	9AKK107492A7072
CCC Certificate	9AKK107492A7089
CCS Certificate	GZ23PTB00147
CQC Certificate	CQC2013010304646608
Declaration of Conformity - CCC	2020980304001066
Declaration of Conformity - CE	1SBD250011U1000
UL Certificate	UL_20140702-E312527-10-5

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	48 mm
Package Level 1 Depth / Length	78 mm
Package Level 1 Height	79 mm
Package Level 1 Gross Weight	0.34 kg
Package Level 1 EAN	3471522391810

## 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 (Finland)	3707304

## Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SBN010015R1001	CE5-01D0.1 Auxiliary Contact Block	CE5-01D0.1	1	piece
1SBN010015R1010	CE5-10D0.1 Auxiliary Contact Block	CE5-10D0.1	1	piece
1SBN010016R1001	CE5-01W0.1 Auxiliary Contact Block	CE5-01W0.1	1	piece
1SBN010016R1010	CE5-10W0.1 Auxiliary Contact Block	CE5-10W0.1	1	piece
1SBN010017R1001	CE5-01D2 Auxiliary Contact Block	CE5-01D2	1	piece
1SBN010017R1010	CE5-10D2 Auxiliary Contact Block	CE5-10D2	1	piece
1SBN010018R1001	CE5-01W2 Auxiliary Contact Block	CE5-01W2	1	piece
1SBN010018R1010	CE5-10W2 Auxiliary Contact Block	CE5-10W2	1	piece

## Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AX Contactors → AX09

