

English



AF12ZB-30-10RT-23

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General Information

Extended Product Type:

AF12ZB-30-10RT-23

Product ID:

1SBL156060R2310

EAN:

3471523127937

Catalog Description:

AF12ZB-30-10RT-23 100-250V50/60HZ-DC Contactor

Long Description:

The AF12ZB-30-10RT-23 is a 3 pole - 690 V IEC or 600 UL contactor with 1 built-in auxiliary contact and Ring-Tongue Terminals, controlling motors up to 5.5 kW / 400 V AC (AC-3) or 7-1/2 hp / 480 V UL and switching power circuits up to 28 A (AC-1) or 28 A UL general use. Thanks to the AF technology, ... [Show more](#)

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Minimum Order Quantity:

1 piece

Customs Tariff Number:

85364900

Popular Downloads

Data Sheet, Technical Information:

[1SBC100220C0201](#)

Instructions and Manuals:

[Installation instructions AF09...38\(Z\)B-...RT Contactors, NF\(Z\)B..ERT Contactor relays and CA4..RT, CAL4..RT, CAT4..RT, LDC4RT Accessories](#)

Instructions and Manuals (Part 2):

[Contactors and Overload relays guide](#)

CAD Dimensional Drawing:

[Information - 2D and 3D files for CAD systems](#)

Dimensions

Product Net Width:

45 mm

Product Net Depth / Length:

77 mm

Product Net Height:

86 mm

Product Net Weight:

0.32 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

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:

Auxiliary Circuit 690 V

Main Circuit 690 V

Rated Frequency (f):

Auxiliary Circuit 50 / 60 Hz

Control Circuit 50 / 60 Hz

Main Circuit 50 / 60 Hz

Conventional Free-air Thermal Current (I_{th}):

acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 35 A

acc. to IEC 60947-5-1, $\Theta = 40\text{ °C}$ 16 A

Rated Operational Current AC-1 (I_e):

(690 V) 40 °C 28 A

(690 V) 60 °C 28 A

(690 V) 70 °C 24 A

Rated Operational Current AC-3 (I_e):

(415 V) 60 °C 12 A

(440 V) 60 °C 12 A

(500 V) 60 °C 12.5 A

(690 V) 60 °C 9 A

(380 / 400 V) 60 °C 12 A

(220 / 230 / 240 V) 60 °C 12 A

Rated Operational Current AC-3e (I_e):

(415 V) 60 °C 12 A

(440 V) 60 °C 12 A

(500 V) 60 °C 12.5 A

(690 V) 60 °C 9 A

(380 / 400 V) 60 °C 12 A

(220 / 230 / 240 V) 60 °C 12 A

Rated Operational Current AC-15 (I_e):

(500 V) 2 A

(690 V) 2 A

(24 / 127 V) 6 A

(220 / 240 V) 4 A

(400 / 440 V) 3 A

Rated Operational Current DC-1 (I_e):

(110 V) 1-Pole, 40 °C 15 A

(110 V) 1-Pole, 60 °C 15 A

(110 V) 1-Pole, 70 °C 15 A

(110 V) 2 Poles in Series, 40 °C 27 A

(110 V) 2 Poles in Series, 60 °C 27 A

(110 V) 2 Poles in Series, 70 °C 24 A

(110 V) 3 Poles in Series, 40 °C 27 A

(110 V) 3 Poles in Series, 60 °C 27 A

(110 V) 3 Poles in Series, 70 °C 24 A

(220 V) 2 Poles in Series, 40 °C 15 A

(220 V) 2 Poles in Series, 60 °C 15 A

(220 V) 2 Poles in Series, 70 °C 15 A

(220 V) 3 Poles in Series, 40 °C 27 A
(220 V) 3 Poles in Series, 60 °C 27 A
(220 V) 3 Poles in Series, 70 °C 24 A
(72 V) 1-Pole, 40 °C 27 A
(72 V) 1-Pole, 60 °C 27 A
(72 V) 1-Pole, 70 °C 24 A
(72 V) 2 Poles in Series, 40 °C 27 A
(72 V) 2 Poles in Series, 60 °C 27 A
(72 V) 2 Poles in Series, 70 °C 24 A
(72 V) 3 Poles in Series, 40 °C 27 A
(72 V) 3 Poles in Series, 60 °C 27 A
(72 V) 3 Poles in Series, 70 °C 24 A

Rated Operational Current DC-3 (I_e):

(110 V) 1-Pole, 40 °C 7 A
(110 V) 1-Pole, 60 °C 7 A
(110 V) 1-Pole, 70 °C 7 A
(110 V) 2 Poles in Series, 40 °C 27 A
(110 V) 2 Poles in Series, 60 °C 27 A
(110 V) 2 Poles in Series, 70 °C 24 A
(110 V) 3 Poles in Series, 40 °C 27 A
(110 V) 3 Poles in Series, 60 °C 27 A
(110 V) 3 Poles in Series, 70 °C 24 A
(220 V) 2 Poles in Series, 40 °C 7 A
(220 V) 2 Poles in Series, 60 °C 7 A
(220 V) 2 Poles in Series, 70 °C 7 A
(220 V) 3 Poles in Series, 40 °C 27 A
(220 V) 3 Poles in Series, 60 °C 27 A
(220 V) 3 Poles in Series, 70 °C 24 A
(72 V) 1-Pole, 40 °C 27 A
(72 V) 1-Pole, 60 °C 27 A
(72 V) 1-Pole, 70 °C 24 A
(72 V) 2 Poles in Series, 40 °C 27 A
(72 V) 2 Poles in Series, 60 °C 27 A
(72 V) 2 Poles in Series, 70 °C 24 A
(72 V) 3 Poles in Series, 40 °C 27 A
(72 V) 3 Poles in Series, 60 °C 27 A
(72 V) 3 Poles in Series, 70 °C 24 A

Rated Operational Current DC-5 (I_e):

(110 V) 1-Pole, 40 °C 4 A
(110 V) 1-Pole, 60 °C 4 A
(110 V) 1-Pole, 70 °C 4 A
(110 V) 2 Poles in Series, 40 °C 15 A
(110 V) 2 Poles in Series, 60 °C 15 A
(110 V) 2 Poles in Series, 70 °C 15 A
(110 V) 3 Poles in Series, 40 °C 27 A
(110 V) 3 Poles in Series, 60 °C 27 A
(110 V) 3 Poles in Series, 70 °C 24 A
(220 V) 2 Poles in Series, 40 °C 4 A
(220 V) 2 Poles in Series, 60 °C 4 A
(220 V) 2 Poles in Series, 70 °C 4 A
(220 V) 3 Poles in Series, 40 °C 12 A
(220 V) 3 Poles in Series, 60 °C 12 A
(220 V) 3 Poles in Series, 70 °C 12 A
(72 V) 1-Pole, 40 °C 12 A
(72 V) 1-Pole, 60 °C 12 A
(72 V) 1-Pole, 70 °C 12 A
(72 V) 2 Poles in Series, 40 °C 27 A
(72 V) 2 Poles in Series, 60 °C 27 A
(72 V) 2 Poles in Series, 70 °C 24 A
(72 V) 3 Poles in Series, 40 °C 27 A
(72 V) 3 Poles in Series, 60 °C 27 A
(72 V) 3 Poles in Series, 70 °C 24 A

Rated Operational Current DC-13 (I_e):

(24 V) 6 A / 144 W
(48 V) 2.8 A / 134 W
(72 V) 1 A / 72 W
(110 V) 0.55 A / 60 W
(125 V) 0.55 A / 69 W
(220 V) 0.27 A / 60 W
(250 V) 0.27 A / 68 W
(400 V) 0.15 A / 60 W
(500 V) 0.13 A / 65 W
(600 V) 0.1 A / 60 W

Rated Operational Power AC-3 (P_e):

(415 V) 5.5 kW
(440 V) 5.5 kW
(500 V) 7.5 kW
(690 V) 7.5 kW
(380 / 400 V) 5.5 kW
(220 / 230 / 240 V) 3 kW

Rated Operational Power AC-3e (P_e):

(415 V) 5.5 kW
(440 V) 5.5 kW
(500 V) 7.5 kW
(690 V) 7.5 kW
(380 / 400 V) 5.5 kW
(220 / 230 / 240 V) 3 kW

Rated Short-time Withstand Current Low Voltage (I_{cw}):

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
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
for 0.1 s 140 A
for 1 s 100 A

Maximum Breaking Capacity:

cos ϕ =0.45 (cos ϕ =0.35 for $I_e > 100$ A) at 440 V 250 A
cos ϕ =0.45 (cos ϕ =0.35 for $I_e > 100$ A) at 690 V 106 A

Rated Insulation Voltage (U_i):

acc. to IEC 60947-4-1 690 V
acc. to IEC 60947-5-1 690 V
acc. to UL/CSA 600 V

Rated Impulse Withstand Voltage (U_{imp}):

6 kV

Maximum Electrical Switching Frequency:

(AC-1) 600 cycles per hour
(AC-15) 1200 cycles per hour
(AC-2 / AC-4) 300 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_c):

50 Hz 100 ... 250 V
60 Hz 100 ... 250 V
DC Operation 100 ... 250 V

Power Loss:

at 6 A per Pole 0.1 W
at Rated Operating Conditions AC-1 per Pole 1 W
at Rated Operating Conditions AC-3 per Pole 0.2 W

Operate Time:

Between Coil De-energization and NC Contact Closing 13 ... 98 ms
Between Coil De-energization and NO Contact Opening 11 ... 95 ms
Between Coil Energization and NC Contact Opening 38 ... 90 ms
Between Coil Energization and NO Contact Closing 40 ... 95 ms

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

Degree of Protection:

acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP10
acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP10
acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10

Tightening Torque:

Auxiliary Circuit 1.2 N·m
Control Circuit 1.2 N·m
Main Circuit 1.5 N·m

Terminal Type:

Ring-Tongue Terminals

Product Name:

Block Contactor

Technical UL/CSA

NEMA Size:

0

Continuous Current Rating NEMA:

18 A

Horsepower Rating NEMA:

(115 V AC) Single Phase 1 Hp
(200 V AC) Three Phase 3 Hp
(230 V AC) Single Phase 2 Hp
(230 V AC) Three Phase 3 Hp
(460 V AC) Three Phase 5 Hp
(575 V AC) Three Phase 5 Hp

Maximum Operating Voltage UL/CSA:

Main Circuit 600 V

General Use Rating UL/CSA:

(600 V AC) 28 A

Horsepower Rating UL/CSA:

(120 V AC) Single Phase 1 hp
(200 ... 208 V AC) Three Phase 3 hp
(220 ... 240 V AC) Three Phase 3 hp
(240 V AC) Single Phase 2 hp
(440 ... 480 V AC) Three Phase 7-1/2 hp
(550 ... 600 V AC) Three Phase 10 hp

Tightening Torque UL/CSA:

Auxiliary Circuit 11 in·lb
Control Circuit 11 in·lb
Main Circuit 13 in·lb

Full Load Amps Motor Use:

(120 V AC) Single Phase 16 A
(200 ... 208 V AC) Three Phase 11 A
(220 ... 240 V AC) Three Phase 9.6 A
(240 V AC) Single Phase 12 A
(440 ... 480 V AC) Three Phase 11 A

Environmental

Ambient Air Temperature:

Close to Contactor Fitted with Thermal O/L Relay -25 ... 60 °C
Close to Contactor without Thermal O/L Relay -40 ... 70 °C
Close to Contactor for Storage -60 ... +80 °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):

[CMRT - Conflict Minerals Reporting Template](#)

REACH Declaration:

[REACH - Letter of Confirmation for block contactors, contactor relays, installation contactors, mini contactors, mini contactor relays, thermal overload relays, electronic overload relays and related accessories](#)

RoHS Declaration:

[RoHS II declaration for block contactors, installation contactors, mini contactors, mini contactor relays, thermal overload relays, electronic overload relays and related accessories](#)

RoHS Information:

Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

SCIP:

695a6a50-2333-483b-b91b-f02eda7d2739 China

Simplified SCIP:

044e68a4-b35c-403d-b162-5a3489196db3 France
10674113-8a7d-4c36-8b7f-4d38b00e4e2f Spain
17893f79-ccde-487c-a98a-3c8791c361cd Germany
1d0a0b42-8086-490f-812f-59b65dfde587 Germany
2747f20d-9a8f-43da-bf94-32ebb52a41e6 France
309aef8-f004-41cf-bd58-d1ea97f8e641 Denmark
3615531a-af46-4499-9d55-77f49c6300a5 Estonia
409078e2-b05d-46d8-a589-598bc408a85e Poland
48ab6dc1-0f5c-4fce-91ce-52834b1cd243 Sweden
607afe21-855e-4cbe-bee0-0b6ac9e4d4fc Netherlands
67a678eb-8f07-4751-a48e-ef732f3e3161 Sweden
75ebb749-db7e-4ec1-ad50-da6df34416b9 Norway
88dcbc46-382f-4f4a-b76f-095565e061bc Finland
923544bc-a11e-41a0-bffa-90c241baa854 Poland
92e943ab-565f-4727-a11f-c89e6db8e12e Belgium
a683c11e-f6dc-4fa2-9727-414ffb3594c3 Hungary
ad6391f3-578f-40b5-92dc-c385dbbb87f9 Czech Republic
b1ab5fde-febb-4818-b87b-7b8c758452dd Belgium
c6568d45-4719-4cd5-9320-c5cfa40bc139 Greece
ded5ca3f-2959-4910-a23a-7e6091978f0c Croatia
df312054-3d8c-4e6a-a94f-1c4bdb7dcdda Portugal
e5bbe8b7-87f8-4772-9db0-f8cd8fdb2f1e Bulgaria
f157eb1c-701d-43b4-a467-9c7f18b4f448 Germany
f6617e8e-72d9-412e-90d9-33e905ea0965 Germany
f6fd1951-c5e7-47ce-89b2-084262e194e7 Hungary

fa8a0bf4-0862-4b51-bdc8-98a1019cdac0 Germany
ff00fec0-a8eb-46fd-a972-44148d2184dc Poland

Toxic Substances Control Act - TSCA:

Toxic Substances Control Act (TSCA) declaration for Contactors

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:

End of life instruction AF(S)09/12/16/26/30/38(Z)(B)(K)(RT) Contactors & NF(Z)(B)(K)(RT) Contactors relays

Environmental Product Declaration - EPD:

Environmental Product Declaration - AF09/12/16(Z)(B) Contactors and NF(Z) Contactor relaysAF(S)09/12/16(Z)(B) Contactors and NF(Z)(B) Contactors Relays (FR).

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

CB Certificate:

CB Certificate AF09, AF12, AF16, AF09(Z)B, AF12(Z)B, AF16(Z)B 3 and 4-pole contactors, AFS09, AFS12, AFS16 safety contactors

CCC Certificate:

CCC Certificate AF09, AF12, AF16, AF09(Z)B, AF12(Z)B, AF16(Z)B 3 and 4-pole contactors, AFS09, AFS12, AFS16 safety contactors

CQC Certificate:

CQC Certificate AF(C)09, AF(C)12, AF(C)16, AF09(Z)B, AF12(Z)B, AF16(Z)B 3 and 4-pole contactors, AFS09, AFS12, AFS16 safety contactors

Declaration of Conformity - CCC:

CCC Declaration of Conformity, Contactor, AF*09, AF*12, AF*16, Made in France

Declaration of Conformity - CE:

EU Declaration of Conformity AF09 to AF38(Z)B..RT 3 and 4-pole contactors

Declaration of Conformity - UKCA:

UK Declaration of Conformity AF09 to AF38(Z)B..RT 3 and 4-pole contactors

UL Listing Card:

UL E312527

UR Certificate:

UR Certificate of Compliance AF09...AF38(Z)B..RT 3-pole contactors with ring tongue terminals

Container Information

Package Level 1 Units:

box 1 piece

Package Level 1 Width:

87 mm

Package Level 1 Depth / Length:

79 mm

Package Level 1 Height:

47 mm

Package Level 1 Gross Weight:

0.32 kg

Package Level 1 EAN:

3471523127937

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

Accessories

 **Filters**

No filters to display

28 Products

Search products...

Identifier	Description	Type	Qty	Unit Of Measure	Actions
1SBN010110R1010	CA4-10 Auxiliary Contact Block	CA4-10	1	piece	
1SBN010110T1010	CA4-10-T Auxiliary Contact Block	CA4-10-T	1	piece	
1SBN010110R1001	CA4-01 Auxiliary Contact Block	CA4-01	1	piece	
1SBN010110T1001	CA4-01-T Auxiliary Contact Block	CA4-01-T	1	piece	
1SBN010120R1011	CAL4-11 Auxiliary Contact Block	CAL4-11	1	piece	

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