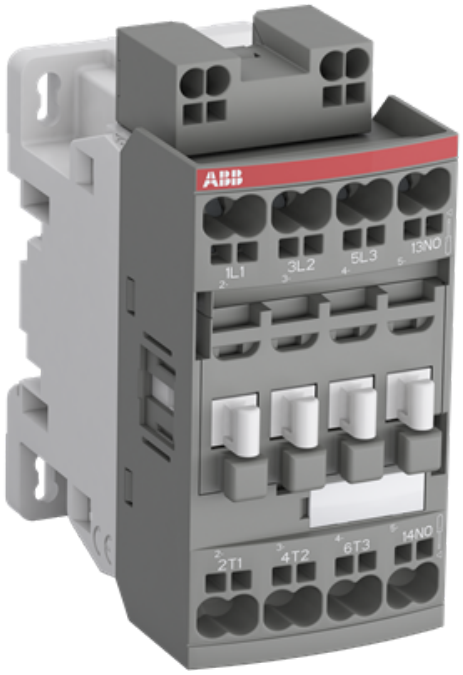
English



3D

AF16Z-30-10K-21

Print to PDF

General Information

Extended Product Type:

AF16Z-30-10K-21

Product ID:

1SBL176005R2110

EAN:

3471523156111

Catalog Description:

AF16Z-30-10K-21 24-60V50/60HZ 20-60VDC Contactor

Long Description:

The AF16Z-30-10K-21 is a 3 pole - 690 V IEC or 600 UL contactor with 1 built-in auxiliary contact and Push-in spring terminals, controlling motors up to 7.5 kW / 400 V AC (AC-3) or 10 hp / 480 V UL and switching power circuits up to 30 A (AC-1) or 30 A UL general use. Thanks to the AF technology, th... **Show more**

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Ordering

Minimum Order Quantity:

1 piece

Customs Tariff Number:

85364900

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EPLAN Data:

EPLAN EDZ AF16

Data Sheet, Technical Information:

1SBC100214C0202 - Main catalog Motor protection and control Manual motor starters, contactors and overload relays (PDF) - Edition 2024

Instructions and Manuals:

Installation instructions AF(C)09...38(Z)(B)..K Contactors, NF(C)(Z)(B)..K Contactor relays and CA4..K, CAL4..K, LDC4K 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:

92.3 mm

Product Net Weight:

0.315 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

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 Θ = 40 °C 35 A
acc. to IEC 60947-5-1, Θ = 40 °C 16 A

Rated Operational Current AC-1 (I_e):

(690 V) 40 °C 30 A
(690 V) 60 °C 30 A
(690 V) 70 °C 26 A

Rated Operational Current AC-3 (I_e):

(415 V) 60 °C 18 A
(440 V) 60 °C 18 A
(500 V) 60 °C 15 A
(690 V) 60 °C 10.5 A
(380 / 400 V) 60 °C 18 A
(220 / 230 / 240 V) 60 °C 18 A

Rated Operational Current AC-3e (I_e):

(415 V) 60 °C 18 A
(440 V) 60 °C 18 A
(500 V) 60 °C 15 A
(690 V) 60 °C 10.5 A
(380 / 400 V) 60 °C 18 A
(220 / 230 / 240 V) 60 °C 18 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 20 A
(110 V) 1-Pole, 60 °C 20 A
(110 V) 1-Pole, 70 °C 20 A
(110 V) 2 Poles in Series, 40 °C 30 A
(110 V) 2 Poles in Series, 60 °C 30 A
(110 V) 2 Poles in Series, 70 °C 26 A
(110 V) 3 Poles in Series, 40 °C 30 A
(110 V) 3 Poles in Series, 60 °C 30 A
(110 V) 3 Poles in Series, 70 °C 26 A
(220 V) 2 Poles in Series, 40 °C 20 A
(220 V) 2 Poles in Series, 60 °C 20 A

(220 V) 2 Poles in Series, 70 °C 20 A
(220 V) 3 Poles in Series, 40 °C 30 A
(220 V) 3 Poles in Series, 60 °C 30 A
(220 V) 3 Poles in Series, 70 °C 26 A
(72 V) 1-Pole, 40 °C 30 A
(72 V) 1-Pole, 60 °C 30 A
(72 V) 1-Pole, 70 °C 26 A
(72 V) 2 Poles in Series, 40 °C 30 A
(72 V) 2 Poles in Series, 60 °C 30 A
(72 V) 2 Poles in Series, 70 °C 26 A
(72 V) 3 Poles in Series, 40 °C 30 A
(72 V) 3 Poles in Series, 60 °C 30 A
(72 V) 3 Poles in Series, 70 °C 26 A

Rated Operational Current DC-3 (I_e):

(110 V) 1-Pole, 40 °C 8 A
(110 V) 1-Pole, 60 °C 8 A
(110 V) 1-Pole, 70 °C 8 A
(110 V) 2 Poles in Series, 40 °C 30 A
(110 V) 2 Poles in Series, 60 °C 30 A
(110 V) 2 Poles in Series, 70 °C 26 A
(110 V) 3 Poles in Series, 40 °C 30 A
(110 V) 3 Poles in Series, 60 °C 30 A
(110 V) 3 Poles in Series, 70 °C 26 A
(220 V) 2 Poles in Series, 40 °C 8 A
(220 V) 2 Poles in Series, 60 °C 8 A
(220 V) 2 Poles in Series, 70 °C 8 A
(220 V) 3 Poles in Series, 40 °C 30 A
(220 V) 3 Poles in Series, 60 °C 30 A
(220 V) 3 Poles in Series, 70 °C 26 A
(72 V) 1-Pole, 40 °C 30 A
(72 V) 1-Pole, 60 °C 30 A
(72 V) 1-Pole, 70 °C 26 A
(72 V) 2 Poles in Series, 40 °C 30 A
(72 V) 2 Poles in Series, 60 °C 30 A
(72 V) 2 Poles in Series, 70 °C 26 A
(72 V) 3 Poles in Series, 40 °C 30 A
(72 V) 3 Poles in Series, 60 °C 30 A
(72 V) 3 Poles in Series, 70 °C 26 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 20 A
(110 V) 2 Poles in Series, 60 °C 20 A
(110 V) 2 Poles in Series, 70 °C 20 A
(110 V) 3 Poles in Series, 40 °C 30 A
(110 V) 3 Poles in Series, 60 °C 30 A
(110 V) 3 Poles in Series, 70 °C 26 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 16 A
(220 V) 3 Poles in Series, 60 °C 16 A
(220 V) 3 Poles in Series, 70 °C 16 A
(72 V) 1-Pole, 40 °C 16 A
(72 V) 1-Pole, 60 °C 16 A
(72 V) 1-Pole, 70 °C 16 A
(72 V) 2 Poles in Series, 40 °C 30 A
(72 V) 2 Poles in Series, 60 °C 30 A
(72 V) 2 Poles in Series, 70 °C 26 A
(72 V) 3 Poles in Series, 40 °C 30 A
(72 V) 3 Poles in Series, 60 °C 30 A
(72 V) 3 Poles in Series, 70 °C 26 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) 9 kW
(440 V) 9 kW
(500 V) 9 kW
(690 V) 9 kW
(380 / 400 V) 7.5 kW
(220 / 230 / 240 V) 4 kW

Rated Operational Power AC-3e (P_e):

(415 V) 9 kW
(440 V) 9 kW
(500 V) 9 kW
(690 V) 9 kW
(380 / 400 V) 7.5 kW
(220 / 230 / 240 V) 4 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 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 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 24 ... 60 V
60 Hz 24 ... 60 V
DC Operation 20 ... 60 V

Power Loss:

at 6 A per Pole 0.1 W
at Rated Operating Conditions AC-1 per Pole 1.64 W
at Rated Operating Conditions AC-3 per Pole 0.6 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

Connecting Capacity Main Circuit:

Flexible with Ferrule 1/2x 0.5 ... 4 mm^2
Flexible with Insulated Ferrule 1x 0.5 ... 4 mm^2
Flexible with Insulated Ferrule 2x 0.5 ... 2.5 mm^2
Flexible 1/2x 0.5 ... 4 mm^2
Rigid Solid 1/2x 1 ... 2.5 mm^2
Rigid Stranded 1/2x 4 ... 6 mm^2

Connecting Capacity Auxiliary Circuit:

Flexible with Ferrule 1/2x 0.5 ... 2.5 mm^2
Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 mm^2
Flexible 1/2x 0.5 ... 2.5 mm^2
Rigid Solid 1/2x 1 ... 2.5 mm^2

Connecting Capacity Control Circuit:

Flexible with Ferrule 1/2x 0.5 ... 2.5 mm^2
Flexible with Insulated Ferrule 1/2x 0.5 ... 1.5 mm^2
Flexible 1/2x 0.5 ... 2.5 mm^2
Rigid Solid 1/2x 1 ... 2.5 mm^2

Wire Stripping Length:

Auxiliary Circuit 10 mm
Control Circuit 10 mm
Main Circuit 10 mm

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

Terminal Type:

Push-in Spring 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) 30 A

Horsepower Rating UL/CSA:

(120 V AC) Single Phase 1-1/2 hp
(200 ... 208 V AC) Three Phase 5 hp
(220 ... 240 V AC) Three Phase 5 hp
(240 V AC) Single Phase 3 hp
(440 ... 480 V AC) Three Phase 10 hp
(550 ... 600 V AC) Three Phase 15 hp

Connecting Capacity Main Circuit UL/CSA:

Rigid Solid 1/2x 18-14 AWG
Rigid Stranded 1/2x 18-10 AWG

Connecting Capacity Auxiliary Circuit UL/CSA:

Rigid Solid 1/2x 18-14 AWG

Connecting Capacity Control Circuit UL/CSA:

Rigid Solid 1/2x 18-14 AWG

Full Load Amps Motor Use:

(120 V AC) Single Phase 20 A
(200 ... 208 V AC) Three Phase 17.5 A
(220 ... 240 V AC) Three Phase 15.2 A
(240 V AC) Single Phase 17 A
(440 ... 480 V AC) Three Phase 14 A
(550 ... 600 V AC) Three Phase 17 A

Environmental

Ambient Air Temperature:

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

Resistance to Vibrations:

4g Closed Position & 2g Open position 5 ... 300 Hz

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

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

ABS Certificate:

ABS Certificate, AF(S)09 to AF(S)96 contactors, NF contactor relays and CA4, CC4, CAL4, CAT4 auxiliary contact blocks, TEF4 electronic timers

BV Certificate:

BV Certificate AF(C)09...AF(C)38 3-pole and 4-pole contactors with screw and Push-in Spring terminals

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
CQC Certificate, Contactor, AF09,AF12,AF16, Made in China

Declaration of Conformity - CCC:

CCC Declaration of Conformity, Contactor, AF*09, AF*12, AF*16, Made in France
CCC Declaration of Conformity, Contactor, AF09,AF12,AF16, Made in China

Declaration of Conformity - CE:

EU Declaration of Conformity AF09... AF96-30-.., AF09...38(Z)-30..K 3-pole Contactors

Declaration of Conformity - UKCA:

UK Declaration of Conformity AF09... AF96-30-.., AF09...38(Z)-30..K 3-pole Contactors

DNV Certificate:

DNV Certificate AF(S)09...96 3-pole & AF09...80 4-pole contactors with screw, spring, push-in terminals

LR Certificate:

LRS Certificate AF(S)09..(K) ... AF96 3 and 4-pole contactors and CA(L)4..(K), CAT4, CC4 auxiliary contact blocks

RINA Certificate:

Rina Certificate for AF(S)09...AF(S)96 contactors, NF contactor relays and accessories with screw,spring and push-in terminals

RMRS Certificate:

RMRS Certificate AF(S)09(S)...AF(S)38 3-pole and 4-pole, AF(S)40..96 3-pole contactors with screw, push-in and spring terminals

UL Certificate:

UL-US Certificate of Compliance AF(C)(S)09(R/M/N)-..(L)(S)(K)...AF(C)(S)38(R/M/N)..(K) 3-pole contactors screw, spring and push-in spring terminals; LDC4 additional coil terminal block; LF16-4, LG16-4, LF38-4 and LH38-4 connecting strips, LD38-4 additional terminal block
UL-CA Certificate of Compliance AF(C)(S)09(R/M/N)-..(L)(S)(K)...AF(C)(S)38(R/M/N)..(K) 3-pole contactors screw, spring and push-in spring terminals; LDC4 additional coil terminal block; LF16-4, LG16-4, LF38-4 and LH38-4 connecting strips, LD38-4 additional terminal block

Container Information

Package Level 1 Units:

box 1 piece

Package Level 1 Width:

93 mm

Package Level 1 Depth / Length:

86 mm

Package Level 1 Height:

45 mm

Package Level 1 Gross Weight:

0.33 kg

Package Level 1 EAN:

3471523156111

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

E-Number (Finland):

3707890

E-Number (Sweden):

3210612

Accessories

Filters

No filters to display

58 Products

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Identifier	Description	Type	Qty	Unit Of Measure	Actions
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	

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