

#### **General Information**

 Extended Product Type:
 AF38-30-00-11

 Product ID:
 1SBL297001R1100

 EAN:
 3471523111516

Catalog Description: AF38-30-00-11 24-60V50/60HZ 20-60VDC Contactor

Long Description: AF38 contactors are used for controlling power circuits up to 690 V AC and 220 V DC. They

are mainly used for controlling 3-phase motors, non-inductive or slightly inductive loads. AF... contactors include an electronic coil interface accepting a wide control voltage Uc min. ... Uc max. Only four coils cover control voltages between 24...500 V 50/60 Hz or 20...500 V DC. AF contactors can manage large control voltage variations. One coil can be used for different control voltages used worldwide without any coil change. AF contactors have built-in surge protection and do not require additional surge suppressors. The AF... series 1-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles, front and side-mounted add-on auxiliary contact blocks (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1. N.C. mirror contacts compliant with Annex F of IEC 60947-4-1) - Control circuit: AC or DC operated - Accessories: a wide range of accessories is available. Note: AF..-30-..-11 not suitable for a direct control by PLC-output. AF..-30-..-11 contactor type available in some countries: please consult your ABB representative.

## Categories

Products » Low Voltage Products and Systems » Control Products » Contactors » Block Contactors

# Ordering

 Minimum Order Quantity:
 1 piece

 Customs Tariff Number:
 85369085

 EAN:
 3471523111516

#### **Dimensions**

Product Net Depth: 86 mm

Product Net Height: 86 mm

Product Net Weight: 0.310 kg

Product Net Width: 45 mm

#### **Container Information**

Package Level 1 Width: 87 mm Package Level 1 Length: 87 mm Package Level 1 Height: 47 mm Package Level 1 Gross Weight:  $0.31 \, \text{kg}$ 3471523111516 Package Level 1 EAN: Package Level 2 Units: 45 piece Package Level 2 Width: 250 mm Package Level 2 Length: 300 mm Package Level 2 Height: 315 mm Package Level 3 Units: 1080 piece Package Level 1 Units: 1 piece

### **Technical**

Number of Main Contacts NC: 0 Number of Auxiliary Contacts NO: 0 Number of Auxiliary Contacts NC: 0

Standards: IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N°14

acc. to IEC 60947-4-1, Open Contactors q = 40 °C 50 A

Rated Operational Voltage: Main Circuit 690 V
Rated Frequency (f): Main Circuit 50 / 60 Hz

**Conventional Free-air Thermal** 

Current (Ith):

Rated Operational Current AC-1 (Ie): (690 V) 40 °C 50 A

(690 V) 60 °C 42 A (690 V) 70 °C 37 A

Rated Operational Current AC-3 (Ie):  $(220 / 230 / 240 \text{ V}) 60 \,^{\circ}\text{C} 40 \,\text{A}$ 

(380 / 400 V) 60 °C 38 A (415 V) 60 °C 38 A (440 V) 60 °C 38 A (500 V) 60 °C 33 A (690 V) 60 °C 24 A Rated Operational Power AC-3 ( $P_e$ ): (220 / 230 / 240 V) 11 kW

(380 / 400 V) 18.5 kW (400 V) 18.5 kW (415 V) 18.5 kW (440 V) 22 kW (500 V) 22 kW (690 V) 22 kW

Rated Short-time Withstand Current at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 350 A

(I<sub>cw</sub>):

at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 50 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 150 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 700 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 225 A

**Maximum Breaking Capacity:**  $\cos phi=0.45 (\cos phi=0.35 \text{ for le} > 100 \text{ A}) \text{ at } 440 \text{ V } 500 \text{ A}$ 

cos phi=0.45 (cos phi=0.35 for le > 100 A) at 690 V 200 A

**Maximum Electrical Switching** 

Frequency:

AC-1 600 cycles per hour AC-2 / AC-4 150 cycles per hour AC-3 1200 cycles per hour

Rated Insulation Voltage (Ui): acc. to UL/CSA 600 V

acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V

Rated Impulse Withstand Voltage

(U<sub>imp</sub>):

6 kV

**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

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

Connecting Capacity Main Circuit: Flexible with Insulated Ferrule 1x 1.5...10 mm<sup>2</sup>

Flexible with Insulated Ferrule 2x 1.5...4 mm<sup>2</sup> Flexible with Ferrule 1/2x 1.5...10 mm<sup>2</sup>

Rigid 1/2x 2.5...10 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 1/2x 1 ... 2.5 mm<sup>2</sup> Control Circuit 10 mm

Wire Stripping Length: Control Circuit 10 mm Main Circuit 14 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

**Terminal Type:** Screw Terminals

Number of Main Contacts NO: 3

**Environmental** 

Climatic Withstand: Category B according to IEC 60947-1 Annex Q

**Maximum Operating Altitude** 

Permissible:

3000 m

Resistance to Vibrations acc. to IEC 5 ... 300 Hz 4 g closed position / 2 g open position

60068-2-6:

Resistance to Shock acc. to IEC

60068-2-27:

Closed, Shock Direction: B1 25 g Open, Shock Direction: B1 5 g Shock Direction: A 30 g Shock Direction: B2 15 g Shock Direction: C1 25 g

**RoHS Status:** Planned to follow EU Directive 2002/95/EC August 18, 2005 and amendment after 2008 Q1 **Ambient Air Temperature:** Close to Contactor for Storage -60...+80 °C

Shock Direction: C2 25 g

Close to Contactor for Storage -60...+80 °C Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °C

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

Technical UL/CSA

General Use Rating UL/CSA: (600 V AC) 50 A

Horsepower Rating UL/CSA: (120 V AC) Single Phase 2 Hp

(240 V AC) Single Phase 5 Hp (200 ... 208 V AC) Three Phase 10 Hp (220 ... 240 V AC) Three Phase 10 Hp (440 ... 480 V AC) Three Phase 25 Hp (550 ... 600 V AC) Three Phase 30 Hp

Tightening Torque UL/CSA: Control Circuit 11 in lb

Main Circuit 22 in·lb

Certificates and Declarations (Document Number)

Instructions and Manuals: 1SBC101027M6801

**ABS Certificate:** ABS\_15-GE1349500-PDA\_90682247

 CB Certificate:
 CB\_SE\_70856M1

 CCC Certificate:
 CCC\_2010010304445623

 Data Sheet, Technical Information:
 1SBC101412D0201

Data Sheet, Technical Information:1SBC101412D0201Declaration of Conformity - CE:1SBD250000U1000DNV Certificate:DNV-GL\_E13871

**EAC Certificate:** EAC\_RU C-FR ME77 B01010

GL Certificate: DNV-GL E13871

GOST Certificate: GOST\_POCCFR.ME77.B07175.pdf

 LR Certificate:
 LRS\_1300087E1

 RINA Certificate:
 RINA\_ELE084013XG

 RMRS Certificate:
 RMRS\_1400682124

 RoHS Information:
 1SBD251012E1000

 UL Certificate:
 UL\_20140305-E312527\_7\_1

UL\_E312527

# Classifications

E-nummer: 3211346

ETIM 4: EC000066 - Magnet contactor, AC-switching

ETIM 5: EC000066 - Magnet contactor, AC-switching

ETIM 6: EC000066 - Power contactor, AC switching

Object Classification Code: Q



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