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General Information

 Extended Product Type:
 AF52-30-22-13

 Product ID:
 1SBL367001R1322

 EAN:
 3471523132535

Catalog Description: AF52-30-22-13 100-250V50/60HZ-DC Contactor

Long Description: AF52 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 2-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles with a non-removable front-mounted 2 N.O. + 2 N.C. auxiliary contact block, side-mounted add-on auxiliary contact blocks (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 including the "Mechanically Linked" symbol on the contactor side. 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: 2-stack contactors available in some countries: please consult your ABB representative.

Categories

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

Ordering

| EAN: | 3471523132535 |
|-------------------------------|---------------|
| Minimum Order Quantity: | 1 piece |
| Customs Tariff Number: | 85369085 |

Dimensions

| Product Net Width: | 55 mm |
|---------------------|----------|
| Product Net Depth: | 144 mm |
| Product Net Height: | 125.5 mm |
| Product Net Weight: | 1.000 kg |

Container Information

| Package Level 1 Units: | 1 piece |
|-------------------------------|---------------|
| Package Level 1 Width: | 180 mm |
| Package Level 1 Length: | 150 mm |
| Package Level 1 Height: | 102 mm |
| Package Level 1 Gross Weight: | 1.14 kg |
| Package Level 1 EAN: | 3471523132535 |
| Package Level 2 Units: | 10 piece |
| Package Level 2 Width: | 300 mm |
| Package Level 2 Length: | 320 mm |
| Package Level 2 Height: | 500 mm |
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Technical

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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 acc. to IEC 60947-4-1, Open Contactors q = 40 °C 105 A

Current (I_{th}): acc. to IEC 60947-5-1, q = 40 °C 16 A

Rated Operational Current AC-1 (I_e): (690 V) 40 °C 100 A (690 V) 60 °C 80 A (690 V) 70 °C 70 A

Rated Operational Current AC-3 (Ie): $(220 / 230 / 240 \text{ V}) 60 \,^{\circ}\text{C}$ 53 A

(380 / 400 V) 60 °C 53 A (415 V) 60 °C 53 A (440 V) 60 °C 53 A (500 V) 60 °C 45 A (690 V) 60 °C 35 A

Rated Operational Power AC-3 (P_e): (220 / 230 / 240 V) 15 kW (380 / 400 V) 22 kW (415 V) 30 kW (440 V) 30 kW (500 V) 30 kW (690 V) 30 kW **Rated Operational Current AC-15** (220 / 240 V) 4 A (24 / 127 V) 6 A (l_e): (400 / 440 V) 3 A (500 V) 2 A (690 V) 2 A Rated Short-time Withstand Current at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A (I_{cw}): at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 250 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 350 A for 0.1 s 140 A for 1 s 100 A **Maximum Breaking Capacity:** cos phi=0.45 (cos phi=0.35 for le > 100 A) at 440 V 950 A cos phi=0.45 (cos phi=0.35 for le > 100 A) at 690 V 600 A **Maximum Electrical Switching** AC-1 600 cycles per hour AC-15 1200 cycles per hour Frequency: AC-2 / AC-4 150 cycles per hour AC-3 1200 cycles per hour DC-13 900 cycles per hour Rated Operational Current DC-13 (110 V) 0.55 A / 60 W (l_e): (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (24 V) 6 A / 144 W (250 V) 0.27 A / 68 W (400 V) 0.15 A / 60 W (48 V) 2.8 A / 134 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W (72 V) 1 A / 72 W 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_{imp}): **Maximum Mechanical Switching** 3600 cycles per hour Frequency: Rated Control Circuit Voltage (U_c): 50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V **Operate Time:** Between Coil De-energization and NC Contact Closing 19 ... 105 ms Between Coil De-energization and NO Contact Opening 17 ... 100 ms Between Coil Energization and NC Contact Opening 38 ... 95 ms Between Coil Energization and NO Contact Closing 42 ... 100 ms **Connecting Capacity-Main Circuit:** Flexible with Insulated Ferrule 1/2x 4...35 mm² Flexible with Ferrule 1/2x 4...35 mm² Rigid 1/2x 6...35 mm² **Connecting Capacity-Auxiliary** Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Circuit: Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm² Rigid 1/2x 1...2.5 mm² Connecting Capacity-Control Circuit: Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75...2.5 mm² Flexible with Insulated Ferrule 2x 0.75...1.5 mm² Rigid 1/2x 1...2.5 mm² Wire Stripping Length: Main Circuit 16 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 IP10 **Terminal Type:** Screw Terminals **Environmental**

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| Ambient Air Temperature: | Close to Contactor for Storage -60+80 °C Close to Contactor Fitted with Thermal O/L Relay -25 +60 °C Close to Contactor without Thermal O/L Relay -40 +70 °C |
| Maximum Operating Altitude Permissible: | 3000 m |
| Resistance to Shock acc. to IEC 60068-2-27: | Closed, Shock Direction: A 25 g Closed, Shock Direction: B1 25 g Closed, Shock Direction: B2 15 g Closed, Shock Direction: C1 25 g |

Closed, Shock Direction: C2 25 g

Open, Shock Direction: B1 5 g

Resistance to Vibrations acc. to IEC $\,$ 5...300 Hz $\,$ 3 g closed position / $\,$ 3 g open position 60068-2-6:

Technical UL/CSA

| General Use Rating UL/CSA: | (600 V AC) 80 A |
|----------------------------|---|
| Horsepower Rating UL/CSA: | (120 V AC) Single Phase 3 Hp (240 V AC) Single Phase 10 Hp (200 208 V AC) Three Phase 15 Hp (220 240 V AC) Three Phase 20 Hp (440 480 V AC) Three Phase 40 Hp (550 600 V AC) Three Phase 50 Hp |
| Tightening Torque UL/CSA: | Auxiliary Circuit 11 in·lb Control Circuit 11 in·lb Main Circuit 35 in·lb |

Certificates and Declarations (Document Number)

| ABS Certificate: | ABS_15-GE1349500-PDA_90682247 |
|---------------------------------|-------------------------------|
| BV Certificate: | BV_2634H36994A |
| CB Certificate: | CB_SE_77418 |
| CCC Certificate: | CCC_2012010304589737 |
| cUL Certificate: | UL_20130926-E312527_14_1 |
| Declaration of Conformity - CE: | 1SBD250176C3000 |
| DNV Certificate: | DNV-GL_E13871 |
| EAC Certificate: | EAC_RU C-FR ME77 B01010 |
| GL Certificate: | DNV-GL_E13871 |
| LR Certificate: | LRS_1300087E1 |
| RINA Certificate: | RINA_ELE084013XG |
| RMRS Certificate: | RMRS_1400682124 |
| RoHS Information: | 1SBD251021E1000 |
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Classifications

| ETIM 5: | EC000066 - Magnet contactor, AC-switching |
|---------|---|
| UNSPSC: | 39121529 |







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