



PRODUCT-DETAILS

AF52-30-00-11

AF52-30-00-11 24-60V50/60HZ 20-60VDC

Contactors



| General Information | |
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| Extended Product Type | AF52-30-00-11 |
| Product ID | 1SBL367001R1100 |
| EAN | 3471523132313 |
| Catalog Description | AF52-30-00-11 24-60V50/60HZ 20-60VDC Contactor |
| Long Description | The AF52-30-00-11 is a 3 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 22 kW / 400 V AC (AC-3) or 40 hp / 480 V UL and switching power circuits up to 100 A (AC-1) or 80 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (24-60 V 50/60 Hz and 20-60 V DC), managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks. Furthermore, surge protection is built-in, offering a compact solution. AF contactors have a block type design, can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories. |

| Ordering | |
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| Minimum Order Quantity | 1 piece |
| Customs Tariff Number | 85364900 |

| Popular Downloads | |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Instructions and Manuals | 1SBC101036M6801 |
| CAD Dimensional Drawing | 2CDC001079B0201 |

| Dimensions | |
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| Product Net Width | 55 mm |
| Product Net Depth / Length | 111 mm |
| Product Net Height | 125.5 mm |
| Product Net Weight | 0.97 kg |

| Technical | |
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| Number of Main Contacts NO | 3 |
| Number of Main Contacts NC | 0 |
| Number of Auxiliary Contacts NO | 0 |
| Number of Auxiliary Contacts NC | 0 |
| Standards | IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-1, UL 60947-4-1, CSA C22.2 No. 60947-1:22, CSA C22.2 No. 60947-4-1:22 |
| Rated Operational Voltage | Main Circuit 690 V |
| Rated Frequency (f) | 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 $\Theta = 40\text{ }^{\circ}\text{C}$ 105 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 (I _e) | (415 V) 60 °C 53 A (440 V) 60 °C 53 A (500 V) 60 °C 45 A (690 V) 60 °C 35 A (380 / 400 V) 60 °C 53 A (220 / 230 / 240 V) 60 °C 53 A |
| Rated Operational Current AC-3e (I _e) | (415 V) 60 °C 53 A (440 V) 60 °C 53 A (500 V) 60 °C 45 A (690 V) 60 °C 35 A (380 / 400 V) 60 °C 53 A (220 / 230 / 240 V) 60 °C 53 A |
| Rated Operational Power AC-3 (P _e) | (400 V) 22 kW (415 V) 30 kW (440 V) 30 kW (500 V) 30 kW (690 V) 30 kW (380 / 400 V) 22 kW (220 / 230 / 240 V) 15 kW |
| Rated Operational Power AC-3e (P _e) | (415 V) 30 kW (440 V) 30 kW (500 V) 30 kW (690 V) 30 kW (380 / 400 V) 22 kW |

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| | (220 / 230 / 240 V) 15 kW |
| Rated Short-time Withstand Current Low Voltage (I_{CW}) | 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 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 |
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 950 A cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 600 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 Operational Current DC-1 (I_e) | (110 V) 2 Poles in Series, 40 °C 100 A (110 V) 2 Poles in Series, 60 °C 80 A (110 V) 2 Poles in Series, 70 °C 70 A (110 V) 3 Poles in Series, 40 °C 100 A (110 V) 3 Poles in Series, 60 °C 80 A (110 V) 3 Poles in Series, 70 °C 70 A (220 V) 3 Poles in Series, 40 °C 100 A (220 V) 3 Poles in Series, 60 °C 80 A (220 V) 3 Poles in Series, 70 °C 70 A (72 V) 1-Pole, 40 °C 100 A (72 V) 1-Pole, 60 °C 80 A (72 V) 1-Pole, 70 °C 70 A (72 V) 2 Poles in Series, 40 °C 100 A (72 V) 2 Poles in Series, 60 °C 80 A (72 V) 2 Poles in Series, 70 °C 70 A (72 V) 3 Poles in Series, 40 °C 100 A (72 V) 3 Poles in Series, 60 °C 80 A (72 V) 3 Poles in Series, 70 °C 70 A |
| Rated Operational Current DC-3 (I_e) | (110 V) 2 Poles in Series, 40 °C 100 A (110 V) 2 Poles in Series, 60 °C 80 A (110 V) 2 Poles in Series, 70 °C 70 A (110 V) 3 Poles in Series, 40 °C 100 A (110 V) 3 Poles in Series, 60 °C 80 A (110 V) 3 Poles in Series, 70 °C 70 A (220 V) 3 Poles in Series, 40 °C 100 A (220 V) 3 Poles in Series, 60 °C 80 A (220 V) 3 Poles in Series, 70 °C 70 A (72 V) 1-Pole, 40 °C 100 A (72 V) 1-Pole, 60 °C 80 A (72 V) 1-Pole, 70 °C 70 A (72 V) 2 Poles in Series, 40 °C 100 A (72 V) 2 Poles in Series, 60 °C 80 A (72 V) 2 Poles in Series, 70 °C 70 A (72 V) 3 Poles in Series, 40 °C 100 A (72 V) 3 Poles in Series, 60 °C 80 A (72 V) 3 Poles in Series, 70 °C 70 A |
| Rated Operational Current DC-5 (I_e) | (110 V) 2 Poles in Series, 40 °C 100 A (110 V) 2 Poles in Series, 60 °C 80 A (110 V) 2 Poles in Series, 70 °C 70 A (110 V) 3 Poles in Series, 40 °C 100 A (110 V) 3 Poles in Series, 60 °C 80 A (110 V) 3 Poles in Series, 70 °C 70 A (220 V) 3 Poles in Series, 40 °C 100 A (220 V) 3 Poles in Series, 60 °C 80 A (220 V) 3 Poles in Series, 70 °C 70 A (72 V) 1-Pole, 40 °C 100 A (72 V) 1-Pole, 60 °C 80 A (72 V) 1-Pole, 70 °C 70 A (72 V) 2 Poles in Series, 40 °C 100 A (72 V) 2 Poles in Series, 60 °C 80 A (72 V) 2 Poles in Series, 70 °C 70 A (72 V) 3 Poles in Series, 40 °C 100 A (72 V) 3 Poles in Series, 60 °C 80 A (72 V) 3 Poles in Series, 70 °C 70 A |
| Rated Insulation Voltage (U_i) | acc. to IEC 60947-4-1 690 V acc. to UL/CSA 600 V |
| Rated Impulse Withstand Voltage (U_{imp}) | 6 kV |

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| 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 |
| Coil Consumption | Average Holding Value 50 / 60 Hz 4 V·A Average Holding Value 50 Hz 4 V·A Average Holding Value 60 Hz 4 V·A Average Holding Value DC 2 W Average Holding Value, from Warm State 2 W |
| 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 |
| 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 or 2 x M6 screws placed diagonally |
| Connecting Capacity Main Circuit | Flexible with Ferrule 1/2x 4 ... 35 mm ² Flexible with Insulated Ferrule 1/2x 4 ... 35 mm ² Rigid Stranded 1/2x 6 ... 35 mm ² |
| Connecting Capacity Control Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 mm ² |
| Wire Stripping Length | Control Circuit 10 mm Main Circuit 16 mm |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 |
| Terminal Type | Screw Terminals |

Technical UL/CSA

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| Maximum Operating Voltage UL/CSA | Main Circuit 600 V |
| General Use Rating UL/CSA | (600 V AC) 80 A |
| Horsepower Rating UL/CSA | (120 V AC) Single Phase 3 hp (200 ... 208 V AC) Three Phase 15 hp (220 ... 240 V AC) Three Phase 20 hp (240 V AC) Single Phase 10 hp (440 ... 480 V AC) Three Phase 40 hp (550 ... 600 V AC) Three Phase 50 hp |
| Connecting Capacity Main Circuit UL/CSA | Rigid Stranded 1/2x 10-2 AWG |
| Connecting Capacity Control Circuit UL/CSA | Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG |
| Tightening Torque UL/CSA | Control Circuit 11 in·lb Main Circuit 35 in·lb |

Environmental

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| Ambient Air Temperature | Close to Contactor Fitted with Thermal O/L Relay -40 ... 70 °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 |
| Resistance to Shock acc. | Closed, Shock Direction: A 25 g |

to IEC 60068-2-27

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 Vibrations3g Closed Position & 3g Open Position 5 ... 300 Hz

Material Compliance

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| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Information | 2CMT2021-006277 |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| 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) |

Circular Value

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| End of Life Instructions | 1SBC101081M6801 |
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Eco Transparency

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| Environmental Product Declaration - EPD | 2TFP200016A1001 1SBD250584E1000 |
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Certificates and Declarations

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| ABS Certificate | ABS_20-2060694-PDA |
| BV Certificate | BV_2634H36994B1 |
| CB Certificate | CB_SE-113324 |
| CCC Certificate | CCC_2012010304589737 CCC_2015010304824714 |
| CQC Certificate | CQC2015010304824714 CQC2012010304589737 |
| Declaration of Conformity - CCC | 2020980304001256 2020980304001074 |
| Declaration of Conformity - CE | 1SBD250000U1000 |
| Declaration of Conformity - UKCA | 1SBD250031U1000 |
| DNV Certificate | DNV_TAE00001AF-4 |
| KC Certificate | KC_HW02016-15010C |
| LR Certificate | LRS_LR23403517TA-02 |
| RINA Certificate | RINA_ELE084013XG |
| RMRS Certificate | RMRS_1802705280 |
| UL Certificate | UL-US-L312527-1141-10303102-9 UL-CA-L312527-4141-10303102-9 |
| UL Listing Card | UL_E312527 |

| Container Information | |
|--------------------------------|---------------|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 150 mm |
| Package Level 1 Depth / Length | 150 mm |
| Package Level 1 Height | 97 mm |
| Package Level 1 Gross Weight | 1.07 kg |
| Package Level 1 EAN | 3471523132313 |
| Package Level 2 Units | box 10 piece |
| Package Level 2 Width | 250 mm |
| Package Level 2 Depth / Length | 300 mm |
| Package Level 2 Height | 300 mm |
| Package Level 2 Gross Weight | 10.7 kg |
| Package Level 3 Units | 240 piece |

| Classifications | |
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| 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 >> lec Contactors |
| E-Number (Finland) | 3707014 |
| E-Number (Sweden) | 3210037 |

| Categories |
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| Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF52 |

