# AF52-30-00-13





AF52-30-00-13 100-250V50/60HZ-DC Contactor

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#### **General Information**

| Extended Product Type | AF52-30-00-13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product ID            | 1SBL367001R1300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| EAN                   | 3471523132337                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Catalog Description   | AF52-30-00-13 100-250V50/60HZ-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 24500 V 50/60 Hz or 20500 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. |

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#### Ordering

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

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## Popular Downloads

| Data Sheet, Technical Information | 1SBC100173C0201 |
|-----------------------------------|-----------------|
| Instructions and Manuals          | 1SBC101036M6801 |

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#### Dimensions

| Product Net Width          | 55 mm    |  |
|----------------------------|----------|--|
| Product Net Depth / Length | 111 mm   |  |
| Product Net Height         | 125.5 mm |  |
| Product Net Weight         | 0.950 kg |  |

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#### Technical

| Number of Main Contacts NO      | 3 |  |
|---------------------------------|---|--|
| Number of Main Contacts NC      | 0 |  |
| Number of Auxiliary Contacts NO | 0 |  |
| Number of Auxiliary Contacts NC | 0 |  |

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| Rated Operational Voltage                                       | Main Circuit 690 V                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Frequency (f)                                             | Main Circuit 50 / 60 Hz                                                                                                                                                                                                                                                                                                                                   |
| Conventional Free-air Thermal Current ( $I_{th}$ )              | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 105 A                                                                                                                                                                                                                                                                                                    |
| Rated Operational Current AC-1 (I <sub>e</sub> )                | (690 V) 40 °C 100 A<br>(690 V) 60 °C 80 A<br>(690 V) 70 °C 70 A                                                                                                                                                                                                                                                                                           |
| Rated Operational Current AC-3 (I <sub>e</sub> )                | (220 / 230 / 240 V) 60 °C 53 A<br>(380 / 400 V) 60 °C 53 A<br>(415 V) 60 °C 53 A<br>(440 V) 60 °C 53 A<br>(500 V) 60 °C 45 A<br>(690 V) 60 °C 35 A                                                                                                                                                                                                        |
| Rated Operational Power AC-3 (P <sub>e</sub> )                  | (220 / 230 / 240 V) 15 kW<br>(380 / 400 V) 22 kW<br>(400 V) 22 kW<br>(415 V) 30 kW<br>(440 V) 30 kW<br>(500 V) 30 kW<br>(690 V) 30 kW                                                                                                                                                                                                                     |
| Rated Short-time Withstand Current (I <sub>cw</sub> )           | 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 for 1 s -empty- A |
| Maximum Breaking Capacity                                       | cos phi=0.45 (cos phi=0.35 for le > 100 A) at 440 V 950 A<br>cos phi=0.45 (cos phi=0.35 for le > 100 A) at 690 V 600 A                                                                                                                                                                                                                                    |
| Maximum Electrical Switching Frequency                          | AC-1 600 cycles per hour<br>AC-2 / AC-4 150 cycles per hour<br>AC-3 1200 cycles per hour                                                                                                                                                                                                                                                                  |
| Rated Insulation Voltage (U <sub>i</sub> )                      | acc. to UL/CSA 600 V<br>acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V                                                                                                                                                                                                                                                                                  |
| Rated Impulse Withstand Voltage ( $\mathbf{U}_{\mathrm{imp}}$ ) | 6 kV                                                                                                                                                                                                                                                                                                                                                      |
| Maximum Mechanical Switching Frequency                          | 3600 cycles per hour                                                                                                                                                                                                                                                                                                                                      |
| Rated Control Circuit Voltage (U <sub>c</sub> )                 | 50 Hz 100 250 V<br>60 Hz 100 250 V<br>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 mm <sup>2</sup> Flexible with Ferrule 1/2x 4 35 mm <sup>2</sup> Rigid 1/2x 6 3 5 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>                                                                                                                                              |
| Wire Stripping Length                                           | Main Circuit 16 mm                                                                                                                                                                                                                                                                                                                                        |
| Degree of Protection                                            | acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10                                                                                                                                                                                                                                                                                              |
| Terminal Type                                                   | Screw Terminals                                                                                                                                                                                                                                                                                                                                           |

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#### Environmental

| Ambient Air Temperature                        | Close to Contactor for Storage -60 +80 °C<br>Close to Contactor Fitted with Thermal O/L Relay -25 +60 °C<br>Close to Contactor without Thermal O/L Relay -40 +70 °C |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Climatic Withstand                             | Category B according to IEC 60947-1 Annex Q                                                                                                                         |
| Maximum Operating Altitude Permissible         | 3000 m                                                                                                                                                              |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5 300 Hz 3 a closed position / 3 a open position                                                                                                                    |

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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

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#### Technical UL/CSA

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

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#### 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<br>CCC_2015010304824714 |
| Declaration of Conformity - CE | 1SBD250000U1000                              |
| DNV Certificate                | DNV-GL_TAE00001AF-1                          |
| DNV GL Certificate             | DNV-GL_TAE00001AF-1                          |
| EAC Certificate                | EAC_RU C-FR ME77 B01010                      |
| Environmental Information      | 1SBD250168E1000                              |
| Instructions and Manuals       | 1SBC101036M6801                              |
| KC Certificate                 | KC_HW02016-15010A                            |
| LR Certificate                 | LRS_1300087E1                                |
| RINA Certificate               | RINA_ELE084013XG                             |
| RMRS Certificate               | RMRS_1400682124                              |
| RoHS Information               | 1SBD251021E1000                              |
| UL Certificate                 | UL_20130926-E312527_14_1                     |
| UL Listing Card                | UL_E312527                                   |

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#### **Container Information**

| Package Level 1 Units          | 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   | 1.05 kg       |
| Package Level 1 EAN            | 3471523132337 |
| Package Level 2 Units          | 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   | 10.5 kg       |
|                                |               |

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Package Level 3 Units 240 piece

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### Classifications

| Object Classification Code | Q                                         |
|----------------------------|-------------------------------------------|
| E-nummer                   | 3210039                                   |
| ETIM 4                     | EC000066 - Magnet contactor, AC-switching |
| ETIM 5                     | EC000066 - Magnet contactor, AC-switching |
| ETIM 6                     | EC000066 - Power contactor, AC switching  |
| ETIM 7                     | EC000066 - Power contactor, AC switching  |
| UNSPSC                     | 39121529                                  |

# Categories

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

