

PRODUCT-DETAILS

## AF38-22-00-13 AF38-22-00-13 100-250V50/60HZ-DC Contactor



## **General Information**

| Extended Product Type | AF38-22-00-13   |
|-----------------------|---|
| Product ID            | 1SBL297501R1300   |
| EAN                   | 3471523116535   |
| Catalog Description   | AF38-22-00-13 100-250V50/60HZ-DC Contactor  |
| Long Description      | AF38 4-pole contactors are used for controlling power circuits up to 690 V AC and 440 V DC. They are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces). 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 4-pole contactors are of the block type design Main poles and auxiliary contact blocks: 2 N.O. + 2 N.C. 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 |

| Classifications               |   |
|-------------------------------|---|
| Object Classification<br>Code | Q   |
| 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                                  |

## 3211524

| Container Information             |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | box 1 piece   |
| Package Level 1 Width             | 87 mm         |
| Package Level 1 Depth /<br>Length | 103 mm        |
| Package Level 1 Height            | 47 mm         |
| Package Level 1 Gross<br>Weight   | 0.36 kg       |
| Package Level 1 EAN               | 3471523116535 |
| Package Level 2 Units             | box 18 piece  |
| Package Level 2 Width             | 250 mm        |
| Package Level 2 Depth /<br>Length | 300 mm        |
| Package Level 2 Height            | 315 mm        |
| Package Level 2 Gross<br>Weight   | 12.96 kg      |
| Package Level 3 Units             | 864 piece     |

| Certificates and Declarations (Document Number) |                               |
|---|-------------------------------|
| ABS Certificate                                 | ABS_15-GE1349500-PDA_90682247 |
| CB Certificate                                  | CB_SE-96553                   |
| CCC Certificate                                 | CCC_2010010304445623          |
| Declaration of<br>Conformity - CE               | 1SBD250001U1000               |
| DNV Certificate                                 | DNV-GL_TAE00001AF-3           |
| DNV GL Certificate                              | DNV-GL_TAE00001AF-3           |
| EAC Certificate                                 | EAC_RU C-FR ME77 B03597       |
| Environmental<br>Information                    | 1SBD250153E1000               |
| GL Certificate                                  | DNV-GL_TAE00001AF-3           |
| GOST Certificate                                | GOST_POCCFR.ME77.B07175.pdf   |
| Instructions and<br>Manuals                     | 1SBC101027M6801               |
| KC Certificate                                  | KC_HW02016-15002C             |
| LR Certificate                                  | LRS_1300087E1                 |
| RINA Certificate                                | RINA_ELE084013XG              |
| RMRS Certificate                                | RMRS_1802705280               |
| RoHS Information                                | 1SBD250001U1000               |
| UL Certificate                                  | UL_20171228-E319322_3_1       |
| UL Listing Card                                 | UL_E319322                    |

| Technical UL/CSA             |   |
|------------------------------|---|
| General Use Rating<br>UL/CSA | (600 V AC) 55 A                             |
| Tightening Torque<br>UL/CSA  | Control Circuit 11 IA<br>Main Circuit 22 IA |
| UL/CSA                       | Main Circuit                                |

| Environmental      |   |
|--------------------|---|
| Ambient Air        | Close to Contactor for Storage -60 +80 °C           |
| Temperature        | Near Contactor for Operation in Free Air -40 +70 °C |
| Climatic Withstand | Category B according to IEC 60947-1 Annex Q         |

Maximum Operating 3000 m Altitude Permissible Resistance to Vibrations 5 ... 300 Hz 4 g closed position / 2 g open position acc. to IEC 60068-2-6 Resistance to Shock acc. Closed, Shock Direction: A 30 K40 to IEC 60068-2-27 Closed, Shock Direction: B1 25 K40 Closed, Shock Direction: B2 15 K40 Closed, Shock Direction: C1 25 K40 Closed, Shock Direction: C2 25 K40 Open, Shock Direction: A 25 K40 Open, Shock Direction: B1 5 K40 Open, Shock Direction: B2 10 K40 Open, Shock Direction: C1 20 K40 Open, Shock Direction: C2 20 K40 **RoHS Status** Following EU Directive 2011/65/EU

| Technical   |   |
|---|---|
| Number of Main  | 2   |
| Contacts NO   |   |
| Number of Main<br>Contacts NC                               | 2   |
| Number of Auxiliary<br>Contacts NO                          | 0   |
| Number of Auxiliary<br>Contacts NC                          | 0   |
| Standards   | IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N°<br>14  |
| Rated Operational<br>Voltage                                | Main Circuit 690 V  |
| Rated Frequency (f)   | Main Circuit 50 / 60 Hz   |
| Conventional Free-air<br>Thermal Current (I <sub>th</sub> ) | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 55 A   |
| Rated Operational<br>Current AC-1 (I <sub>e</sub> )         | (690 V) 40 °C 55 A<br>(690 V) 60 °C 45 A<br>(690 V) 70 °C 37 A  |
| Rated Operational<br>Current AC-3 (I <sub>e</sub> )         | (220 / 230 / 240 V) 60 °C 23.2 A<br>(380 / 400 V) 60 °C 22 A<br>(415 V) 60 °C 21.2 A<br>(440 V) 60 °C 20 A<br>(500 V) 60 °C 17.6 A<br>(690 V) 60 °C 10.5 A  |
| Rated Operational Power<br>AC-3 (P <sub>e</sub> )           | (220 / 230 / 240 V) 5.5 kW<br>(415 V) 11 kW<br>(440 V) 11 kW<br>(500 V) 11 kW<br>(690 V) 9 kW<br>(400 V) 11 kW  |
| Rated Short-time<br>Withstand Current (I <sub>cw</sub> )    | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 300 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 55 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 150 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 450 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 225 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 225 A |
| Maximum Electrical<br>Switching Frequency                   | AC-1 600 cycles per hour  |
| Rated Insulation Voltage<br>(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<br>Withstand Voltage (U <sub>imp</sub><br>)   | 6 kV  |
| Maximum Mechanical<br>Switching Frequency                   | 3600 cycles per hour  |
| Rated Control Circuit<br>Voltage (U <sub>c</sub> )          | 50 Hz 100 250 V<br>50 Hz / 60 Hz 100 250 V<br>60 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 13 98 ms<br>Between Coil De-energization and NO Contact Opening 11 95 ms |
|-----------------------|--|
|                       | Between Coil Energization and NC Contact Opening 38 90 ms<br>Between Coil Energization and NO Contact Closing 40 95 ms       |
| Connecting Capacity   | Rigid 1/2x 1.5 16 mm²  |
| Main Circuit          | Flexible with Ferrule 1/2x 1.5 16 mm <sup>2</sup>  |
|                       | Flexible with Insulated Ferrule 1x 1.5 16 mm <sup>2</sup>  |
|                       | Flexible with Insulated Ferrule 2x 1.5 16 mm <sup>2</sup>  |
| Connecting Capacity   | Flexible with Ferrule 1/2x 0.75 2.5 mm <sup>2</sup>  |
| Control Circuit       | 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 | Control Circuit 10 mm  |
|                       | Main Circuit 12 mm   |
| Degree of Protection  | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20   |
| - 5                   | acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20   |
| Terminal Type         | Screw Terminals  |

| Product Net Width             | 45 mm   |
|-------------------------------|---------|
| Product Net Depth /<br>Length | 101 mm  |
| Product Net Height            | 86 mm   |
| Product Net Weight            | 0.36 kg |

| Popular Downloads           |                 |
|-----------------------------|-----------------|
| Instructions and<br>Manuals | 1SBC101027M6801 |
|                             |                 |
| Ordering                    |                 |
| Minimum Order Quantity      | 1               |
|                             | 1 piece         |

## Categories

Low Voltage Products and Systems  $\rightarrow$  Control Products  $\rightarrow$  Contactors  $\rightarrow$  Block Contactors

