

## PRODUCT-DETAILS

# AF52-40-00-13

## AF52-40-00-13 100-250V50/60HZ-DC Contactor



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | AF52-40-00-13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Product ID            | 1SBL367201R1300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| EAN                   | 3471523133631                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Catalog Description   | AF52-40-00-13 100-250V50/60HZ-DC Contactor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Long Description      | The AF52-40-00-13 is a 4 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 22 kW / 400 V AC (AC-3) 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 (100-250 V 50/60 Hz and 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

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

### Popular Downloads

|                          |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 1SBC101047M6801 |
|--------------------------|-----------------|

### Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 70 mm    |
| Product Net Depth / Length | 113.5 mm |
| Product Net Height         | 125.5 mm |
| Product Net Weight         | 1.16 kg  |

## Technical

|                                                          |                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts NO                               | 4                                                                                                                                                                                                                                                                                                                                                                        |
| Number of Main Contacts NC                               | 0                                                                                                                                                                                                                                                                                                                                                                        |
| Number of Auxiliary Contacts NO                          | 0                                                                                                                                                                                                                                                                                                                                                                        |
| Number of Auxiliary Contacts NC                          | 0                                                                                                                                                                                                                                                                                                                                                                        |
| Rated Operational Voltage                                | Main Circuit 690 V                                                                                                                                                                                                                                                                                                                                                       |
| Rated Frequency (f)                                      | Main Circuit 50 / 60 Hz                                                                                                                                                                                                                                                                                                                                                  |
| Conventional Free-air Thermal Current (I <sub>th</sub> ) | 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> )         | (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<br>(380 / 400 V) 60 °C 53 A<br>(220 / 230 / 240 V) 60 °C 53 A                                                                                                                                                                                                                       |
| Rated Operational Power AC-3 (P <sub>e</sub> )           | (415 V) 30 kW<br>(440 V) 30 kW<br>(500 V) 30 kW<br>(690 V) 30 kW<br>(380 / 400 V) 22 kW<br>(220 / 230 / 240 V) 15 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<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 250 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 350 A<br>for 1 s -empty- A |
| Maximum Breaking Capacity                                | cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 950 A<br>cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 600 A                                                                                                                                                                                                                           |
| Maximum Electrical Switching Frequency                   | (AC-1) 600 cycles per hour                                                                                                                                                                                                                                                                                                                                               |
| Rated Insulation Voltage (U <sub>i</sub> )               | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V<br>acc. to UL/CSA 600 V                                                                                                                                                                                                                                                                                                 |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> )      | 6 kV                                                                                                                                                                                                                                                                                                                                                                     |
| Maximum Mechanical Switching Frequency                   | 3600 cycles per hour                                                                                                                                                                                                                                                                                                                                                     |
| Rated Control Circuit 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>DC Operation 100 ... 250 V                                                                                                                                                                                                                                                                  |
| Connecting Capacity Main Circuit                         | Flexible with Ferrule 1/2x 4 ... 35 mm <sup>2</sup><br>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><br>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 Coil Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10                                                                                                                                                                                                                                             |
| Terminal Type                                            | Screw Terminals                                                                                                                                                                                                                                                                                                                                                          |

## Technical UL/CSA

|                    |                                      |
|--------------------|--------------------------------------|
| General Use Rating | (600 V AC) 80 A                      |
| UL/CSA             |                                      |
| Horsepower Rating  | (120 V AC) Single Phase 3 hp         |
| UL/CSA             | (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 |

## Environmental

|                                                |                                                                                                          |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                        | Close to Contactor for Storage -60 ... +80 °C<br>Near Contactor for Operation in Free Air -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 g Closed position / 2 g Open position                                                     |
| RoHS Status                                    | Following EU Directive 2011/65/EU                                                                        |

## Certificates and Declarations (Document Number)

|                                 |                               |
|---------------------------------|-------------------------------|
| ABS Certificate                 | ABS_15-GE1349500-PDA_90682247 |
| BV Certificate                  | BV_2634H36994A                |
| CB Certificate                  | CB_SE-96554                   |
| CCC Certificate                 | CCC_2015010304824714          |
| CQC Certificate                 | CQC2015010304824714           |
| Declaration of Conformity - CCC | 2020980304001256              |
| Declaration of Conformity - CE  | 1SBD250001U1000               |
| DNV Certificate                 | DNV-GL_TAE00001AF-3           |
| DNV GL Certificate              | DNV-GL_TAE00001AF-3           |
| EAC Certificate                 | EAC_RU_FRME77B03447           |
| GL Certificate                  | DNV-GL_TAE00001AF-3           |
| Instructions and Manuals        | 1SBC101047M6801               |
| KC Certificate                  | KC_HW02016-15012C             |
| LR Certificate                  | LRS_1300087E1                 |
| RMRS Certificate                | RMRS_1400682124               |
| RoHS Information                | 1SBD250001U1000               |
| UL Certificate                  | UL_20141124-E312527-14-2      |
| 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         | 103 mm        |
| Package Level 1 Gross Weight   | 1.27 kg       |
| Package Level 1 EAN            | 3471523133631 |
| Package Level 2 Units          | box 8 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   | 10.16 kg  |
| Package Level 3 Units          | 192 piece |

Classifications

|                            |                                           |
|----------------------------|-------------------------------------------|
| Object Classification 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  |
| eClass                     | V11.0 : 27371003                          |
| UNSPSC                     | 39121529                                  |
| E-Number (Finland)         | 3707262                                   |
| E-Number (Sweden)          | 3210311                                   |

Categories

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

