



Representative Image

## Alternate Catalog No. AF40-22-00-13 Catalog No. 1SBL347501R1300

**Description: AF40-22-00-13 100-250V50/60HZ-DC Contactor**

**UPC No 3471523133839**

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AF40 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  $U_c \text{ min.} \dots U_c \text{ max.}$  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 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 accessories is available.

### Descriptors

|                      |                  |
|----------------------|------------------|
| Category             | AF Contactors    |
| Block Contactor Type | 4-Pole Contactor |

### Specifications

|  |  |
|--|--|
| Product Type                                   | AF   |
| General Use Rating UL/CSA                      | (600 V AC) 60 A  |
| Object Classification Code                     | Q  |
| Terminal Type                                  | Screw Terminals  |
| Rated Control Circuit Voltage                  | 50 Hz /60 Hz DC Operation 100 ... 250 V  |
| Number of Main Contacts NO                     | 2  |
| Number of Main Contacts NC                     | 2  |
| Climatic Withstand                             | Category B according to IEC 60947-1 Annex Q  |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5 ... 300 Hz 3 g Closed position / 2 g Open position   |
| Number of Auxiliary Contacts NO                | 0  |
| RoHS Status                                    | Following EU Directive 2011/65/EU  |
| Reference Ambient Air Temperature              | Close to Contactor for Storage -60 ... +80 °C<br>Near Contactor for Operation in Free Air -40 ... +70 °C   |
| Rated Operational Voltage                      | Main Circuit 690 V   |
| Number of Auxiliary Contacts NC                | 0  |
| Maximum Operating Altitude Permissible         | 3000 m   |
| Rated Operational Current AC-1                 | (690 V) 40 °C 70 A<br>(690 V) 60 °C 60 A<br>(690 V) 70 °C 50 A<br>(220 / 230 / 240 V) 11 KWT<br>(380 / 400 V) 18.5 KWT   |
| Rated Operational Power AC-3                   | (415 V) 22 KWT<br>(440 V) 22 KWT<br>(500 V) 22 KWT<br>(690 V) 22 KWT   |
| Horsepower Rating UL/CSA                       | (220 ... 240 V AC) Three Phase 15 hp<br>(440 ... 480 V AC) Three Phase 30 hp<br>(550 ... 600 V AC) Three Phase 40 hp<br>(120 V AC) Single Phase 3 hp<br>(200 ... 208 V AC) Three Phase 10 hp<br>(240 V AC) Single Phase 7-1/2 hp |


**by ABB**

## Specifications

|   |   |
|---|---|
| Conventional Free-air Thermal Current     | acc. to IEC 60947-4-1, Open Contactors $q = 40\text{ °C } 105\text{ A}$   |
| Rated Frequency                           | Main Circuit 50Hz<br>Main Circuit 60 Hz   |
| Rated Short-time Withstand Current        | 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 for 1 s - A |
| Rated Operational Current AC-3            | (220 / 230 / 240 V) 60 °C 40 A<br>(380 / 400 V) 60 °C 40 A<br>(415 V) 60 °C 40 A<br>(440 V) 60 °C 40 A<br>(500 V) 60 °C 35 A<br>(690 V) 60 °C 25 A  |
| Maximum Electrical Switching Frequency    | AC-1 600 cycles per hour  |
| Rated Insulation Voltage                  | acc. to UL/CSA 600 V<br>acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V  |
| Maximum Breaking Capacity                 | $\cos\phi=0.45$ ( $\cos\phi=0.35$ for $I_e > 100\text{ A}$ ) at 440 V 950 A<br>$\cos\phi=0.45$ ( $\cos\phi=0.35$ for $I_e > 100\text{ A}$ ) at 690 V 600 A  |
| Maximum Mechanical Switching Frequency    | 3600 cycles per hour  |
| Secondary Rated Impulse Withstand Voltage | 6 kV  |
| Connecting Capacity Main Circuit          | Rigid 1/2x 6 ... 3 5 m <sup>2</sup><br>Flexible with Ferrule 1/2x 4 ... 35 m <sup>2</sup>   |
| Connecting Capacity Control Circuit       | Flexible with Ferrule 1/2x 0.75 ... 2.5 m <sup>2</sup><br>Rigid 1/2x 1 ... 2.5 m <sup>2</sup>   |
| 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  |
| Screw Terminal Type                       | Screw Terminals   |
| Wire Stripping Length                     | Main Circuit 16 mm  |

## Classifications

|          |   |
|----------|---|
| ETIM 4   | EC000066 - Magnet contactor, AC-switching |
| ETIM 6.0 | EC000066 - Power contactor, AC switching  |
| ETIM 7   | EC000066 - Power contactor, AC switching  |
| ETIM 5.0 | EC000066 - Magnet contactor, AC-switching |

## Dimensions

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

## Package Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Width          | 150 mm        |
| Package Level 1 Height         | 103 mm        |
| Package Level 1 Depth / Length | 150 mm        |
| Package Level 1 EAN            | 3471523133839 |
| Package Level 1 Units          | box 1 piece   |
| Package Level 2 Width          | 250 mm        |
| Package Level 2 Height         | 300 mm        |
| Package Level 1 Gross Weight   | 1.27 kg       |
| Package Level 2 Units          | box 8 piece   |
| Package Level 3 Units          | 192 piece     |

**Package Information**

|                                |          |
|--------------------------------|----------|
| Package Level 2 Depth / Length | 300 mm   |
| Package Level 2 Gross Weight   | 10.16 kg |

**Ordering**

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