



Representative Image

## Alternate Catalog No. AF38Z-22-00-30 Catalog No. 1SBL296501R3000

**Description:** AF38Z-22-00-30 24VDC Contactor

**UPC No** 3471523116993

**Home > Contactors & Starters > UL Listed IEC Contactors > AF Contactors**

AF38Z 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...). AF38Z contactors with coil 30 include a 24 V DC electronic coil interface with a built-in surge suppression, obtaining a reduced holding coil consumption up to 1.7 W for a low panel energy consumption and a direct control by PLC-output  $\geq 250$  mA 24 V DC, without need of additional interface relay. Only AF..Z...-30 contactors need to respect the polarity on the coil terminals (A1+ and A2-). 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) - 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) 55 A                                                                                                                                                                                                                                                                                                                                                  |
| Object Classification Code                     | Q                                                                                                                                                                                                                                                                                                                                                                |
| Terminal Type                                  | Screw Terminals                                                                                                                                                                                                                                                                                                                                                  |
| Rated Control Circuit Voltage                  | DC Operation 24 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 4 g closed position / 2 g open position                                                                                                                                                                                                                                                                                                             |
| Number of Auxiliary Contacts NO                | 0                                                                                                                                                                                                                                                                                                                                                                |
| Reference Ambient Air Temperature              | Close to Contactor for Storage -60 ... +80 °C<br>Near Contactor for Operation in Free Air -40 ... +70 °C                                                                                                                                                                                                                                                         |
| Number of Auxiliary Contacts NC                | 0                                                                                                                                                                                                                                                                                                                                                                |
| Maximum Operating Altitude Permissible         | 3000 m                                                                                                                                                                                                                                                                                                                                                           |
| Rated Operational Current AC-1                 | (690 V) 40 °C 55 A<br>(690 V) 60 °C 45 A<br>(690 V) 70 °C 37 A<br>(220 / 230 / 240 V) 5.5 KWT                                                                                                                                                                                                                                                                    |
| Rated Operational Power AC-3                   | (415 V) 11 KWT<br>(440 V) 11 KWT<br>(500 V) 11 KWT<br>(690 V) 9 KWT                                                                                                                                                                                                                                                                                              |
| Conventional Free-air Thermal Current          | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 55 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 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>for 1 s - A |

**by ABB**

## Specifications

|                                           |                                                                                                                                                                                                                                                                        |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Operational Current AC-3            | (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                                                                                                             |
| 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 Mechanical Switching Frequency    | 3600 cycles per hour                                                                                                                                                                                                                                                   |
| Operate Time                              | Between Coil De-energization and NC Contact Closing 22 ... 57 ms<br>Between Coil De-energization and NO Contact Opening 17 ... 29 ms<br>Between Coil Energization and NC Contact Opening 20 ... 35 ms<br>Between Coil Energization and NO Contact Closing 27 ... 53 ms |
| Secondary Rated Impulse Withstand Voltage | 6 kV                                                                                                                                                                                                                                                                   |
| Connecting Capacity Main Circuit          | Rigid 1/2x 1.5 ... 16 m <sup>2</sup><br>Flexible with Ferrule 1/2x 1.5 ... 16 m <sup>2</sup><br>Flexible with Insulated Ferrule 1x 1.5 ... 16 m <sup>2</sup> /2x 1.5 ... 16 m <sup>2</sup>                                                                             |
| Connecting Capacity Control Circuit       | Flexible with Ferrule 1/2x 0.75 ... 2.5 m <sup>2</sup><br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 m <sup>2</sup> /2x 0.75 ... 1.5 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 IP20                                                                                                                                           |
| Wire Stripping Length                     | Control Circuit 10 mm<br>Main Circuit 12 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         | 0.53 kg |
| Product Net Depth / Length | 121 mm  |
| Product Net Width          | 45 mm   |
| Product Net Height         | 86 mm   |

## Package Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Width          | 96 mm         |
| Package Level 1 Height         | 50 mm         |
| Package Level 1 Depth / Length | 127 mm        |
| Package Level 1 EAN            | 3471523116993 |
| Package Level 1 Units          | box 1 piece   |
| Package Level 2 Height         | 129 mm        |
| Package Level 1 Gross Weight   | 0.574 kg      |
| Package Level 2 Units          | box 12 piece  |
| Package Level 3 Units          | 576 piece     |
| Package Level 2 Depth / Length | 98 mm         |
| Package Level 2 Gross Weight   | 6.888 kg      |

## Ordering

## Ordering

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