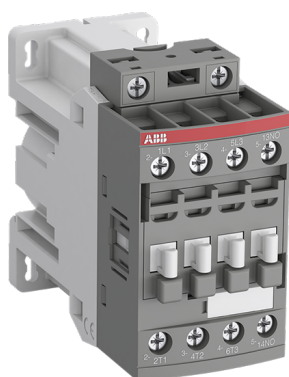


PRODUCT-DETAILS

# AF12Z-30-10-30

## AF12Z-30-10-30 24VDC Contactor



### General Information

|                       |                                |
|-----------------------|--------------------------------|
| Extended Product Type | AF12Z-30-10-30                 |
| Product ID            | 1SBL156001R3010                |
| EAN                   | 3471523113596                  |
| Catalog Description   | AF12Z-30-10-30 24VDC Contactor |

|                  |   |
|------------------|---|
| Long Description | <p>AF12Z 3-pole 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. AF12Z 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 <math>\geq 250</math> 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 1-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles, 1 built-in auxiliary contact, 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.</p> |
|------------------|---|

### 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  |

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**Container Information**


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|                                |                |
|--------------------------------|----------------|
| Package Level 1 Units          | box 1 piece    |
| Package Level 1 Width          | 96 mm          |
| Package Level 1 Depth / Length | 112 mm         |
| Package Level 1 Height         | 50 mm          |
| Package Level 1 Gross Weight   | 0.475 kg       |
| Package Level 1 EAN            | 3471523113596  |
| Package Level 2 Units          | crate 12 piece |
| Package Level 2 Width          | 51 mm          |
| Package Level 2 Depth / Length | 98 mm          |
| Package Level 2 Height         | 114 mm         |
| Package Level 2 Gross Weight   | 5.7 kg         |
| Package Level 3 Units          | 576 piece      |

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**Certificates and Declarations (Document Number)**


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|                                |                         |
|--------------------------------|-------------------------|
| CB Certificate                 | CB_SE-96551             |
| CCC Certificate                | CCC_2010010304445624    |
| cUL Certificate                | UL_20180227_E312527_7_1 |
| Declaration of Conformity - CE | 1SBD250000U1000         |
| 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       | 1SBC101053M6801         |
| RINA Certificate               | RINA_ELE240318XG        |
| RMRS Certificate               | RMRS_1802705280         |
| RoHS Information               | 1SBD250000U1000         |

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**Technical UL/CSA**


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|                              |   |
|------------------------------|---|
| General Use Rating<br>UL/CSA | (600 V AC) 28 A   |
| Horsepower Rating<br>UL/CSA  | (220 ... 240 V AC) Three Phase 3 hp<br>(440 ... 480 V AC) Three Phase 7-1/2 hp<br>(550 ... 600 V AC) Three Phase 10 hp<br>(120 V AC) Single Phase 1 hp<br>(200 ... 208 V AC) Three Phase 3 hp<br>(240 V AC) Single Phase 2 hp |

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**Environmental**


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Ambient Air Temperature

Close to Contactor for Storage -60 ... +80 °C

Close to Contactor without Thermal O/L Relay -40 ... +70 °C  
 Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °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 4 g closed position / 2 g open position |
| RoHS Status                                    | Following EU Directive 2011/65/EU                    |

## Technical

|  |   |
|--|---|
| Number of Main Contacts NO                         | 3   |
| Number of Main Contacts NC                         | 0   |
| Number of Auxiliary Contacts NO                    | 1   |
| Number of Auxiliary Contacts NC                    | 0   |
| Rated Operational Voltage                          | Auxiliary Circuit 690 V   |
| Rated Frequency (f)                                | Auxiliary Circuit 50 / 60 Hz<br>Main Circuit 50 / 60 Hz   |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | acc. to IEC 60947-5-1, $q = 40$ °C 16 A<br>acc. to IEC 60947-4-1, Open Contactors $q = 40$ °C 35 A  |
| Rated Operational Current AC-1 ( $I_e$ )           | (690 V) 40 °C 28 A<br>(690 V) 60 °C 28 A<br>(690 V) 70 °C 24 A  |
| Rated Operational Current AC-3 ( $I_e$ )           | (220 / 230 / 240 V) 60 °C 12 A<br>(380 / 400 V) 60 °C 12 A<br>(415 V) 60 °C 12 A<br>(440 V) 60 °C 12 A<br>(500 V) 60 °C 12.5 A<br>(690 V) 60 °C 9 A   |
| Rated Operational Power AC-3 ( $P_e$ )             | (220 / 230 / 240 V) 3 kW<br>(380 / 400 V) 5.5 kW<br>(415 V) 5.5 kW<br>(440 V) 5.5 kW<br>(500 V) 7.5 kW<br>(690 V) 7.5 kW  |
| Rated Operational Current AC-15 ( $I_e$ )          | (220 / 240 V) 4 A<br>(24 / 127 V) 6 A<br>(500 V) 2 A<br>(690 V) 2 A<br>(400 / 440 V) 3 A  |
| Rated Short-time Withstand Current ( $I_{cw}$ )    | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 150 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 35 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 60 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 300 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 80 A<br>for 0.1 s 140 A<br>for 1 s 100 A |
| Maximum Breaking Capacity                          | $\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 440 V 250 A<br>$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 690 V 106 A  |
| Maximum Electrical Switching Frequency             | AC-1 600 cycles per hour<br>AC-2 / AC-4 300 cycles per hour<br>AC-3 1200 cycles per hour<br>AC-15 1200 cycles per hour<br>DC-13 900 cycles per hour   |
| Rated Operational Current DC-13 ( $I_e$ )          | (125 V) 0.55 A / 69 W<br>(24 V) 6 A / 144 W   |

|   |  |
|---|--|
|   | (250 V) 0.27 A / 68 W<br>(48 V) 2.8 A / 134 W<br>(72 V) 1 A / 72 W<br>(110 V) 0.55 A / 60 W<br>(220 V) 0.27 A / 60 W<br>(400 V) 0.15 A / 60 W<br>(500 V) 0.13 A / 65 W<br>(600 V) 0.1 A / 60 W   |
| 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 (U <sub>imp</sub> ) | 6 kV   |
| Maximum Mechanical Switching Frequency              | 3600 cycles per hour   |
| Rated Control Circuit Voltage (U <sub>c</sub> )     | 50 Hz / 60 Hz 100 ... 250 V<br>DC Operation 24 V   |
| 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 |
| Connecting Capacity Main Circuit                    | Rigid 1/2x 1 ... 6 m <sup>2</sup><br>Flexible with Ferrule 1/2x 0.75 ... 6 m <sup>2</sup><br>Flexible with Insulated Ferrule 1x 0.75 ... 4 m <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 2.5 m <sup>2</sup>  |
| Connecting Capacity Auxiliary Circuit               | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 2.5 m <sup>2</sup>                                   |
| Connecting Capacity Control Circuit                 | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 2.5 m <sup>2</sup>                                   |
| Wire Stripping Length                               | Auxiliary Circuit 10 mm<br>Control Circuit 10 mm<br>Main Circuit 10 mm   |
| Degree of Protection                                | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20<br>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  |
| Terminal Type                                       | Screw Terminals  |

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 45 mm   |
| Product Net Depth / Length | 97 mm   |
| Product Net Height         | 86 mm   |
| Product Net Weight         | 0.43 kg |

## Popular Downloads

|                          |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 1SBC101053M6801 |
|--------------------------|-----------------|

## Ordering

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

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## Categories

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

