

## Alternate Catalog No. B7D-30-01-05 Catalog No. GJL1317001R0015

**Description:** B7D-30-01-05 Mini Contactor 220-240VDC with diode

**UPC No** 4013614262920

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

The B7D-30-01 mini contactor is a compact 3 pole contactor with 1 auxiliary contact and screw terminals. They are ideally suited for applications where reliability is a must and space is at a premium. Mini contactors are used in residential buildings, commercial buildings and industrial applications for the control of single or three-phase loads up to 5.5 kW (AC-3) and 20 A / 690 V (AC-1) or switching of control signals. The mini contactor has a build-in surge suppressor diode. Further features are the noiseless and hum-free coil, the integrated overvoltage protection, a switch position indication and the integrated possibility for rail or wall mounting.



Representative Image

### Descriptors

|          |               |
|----------|---------------|
| Category | AF Contactors |
|----------|---------------|

### Specifications

|  |  |
|--|--|
| Product Type                                   | Mini Contactors (B6, B7)   |
| General Use Rating UL/CSA                      | (600 V AC) 16 A  |
| Object Classification Code                     | Q  |
| Terminal Type                                  | Screw Terminals  |
| Rated Control Circuit Voltage                  | 220 ... 240 V DC   |
| Number of Main Contacts NO                     | 3  |
| Connecting Capacity Auxiliary Circuit UL/CSA   | Stranded 1/2x 22-10 american wire gauge  |
| Number of Main Contacts NC                     | 0  |
| Maximum Operating Voltage UL/CSA               | Main Circuit 600 V AC  |
| Connecting Capacity Main Circuit UL/CSA        | Stranded 1/2x 22-10 american wire gauge  |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5g / 5 ... 150 Hz  |
| Number of Auxiliary Contacts NO                | 0  |
| Connecting Capacity Main Circuit UL/CSA        | Stranded 1/2x 22-10 american wire gauge  |
| RoHS Status                                    | Following EU Directive 2011/65/EU  |
| Reference Ambient Air Temperature              | Operation -20 ... +55 °C   |
| Rated Operational Voltage                      | Auxiliary Circuit 12 ... 240 V DC<br>Auxiliary Circuit 12 ... 500 V AC / DC<br>Main Circuit 12 ... 690 V AC / DC<br>Main Circuit 690 V AC              |
| Resistance to Shock acc. to IEC 60068-2-27     | 11 ms Pulse 15g  |
| Number of Auxiliary Contacts NC                | 1  |
| Tightening Torque UL/CSA                       | Auxiliary Circuit 7 in-lb (pound inch)<br>Control Circuit 7 in-lb (pound inch)<br>Main Circuit 7 in-lb (pound inch)                                    |
| Maximum Operating Altitude Permissible         | 2000 m   |
| Rated Operational Current AC-1                 | (220 / 240 V) 40 °C 20 A<br>(220 / 240 V) 55 °C 16 A<br>(380 / 440 V) 40 °C 20 A<br>(380 / 440 V) 55 °C 16 A<br>(690 V) 40 °C 6 A<br>(690 V) 55 °C 6 A |

**by ABB**

## Specifications

|  |   |
|--|---|
| Standards  | IEC/EN 60947-1<br>IEC/EN 60947-4-1<br>IEC/EN 60947-5-1<br>UL 60947-1<br>UL 60947-4-1  |
| Rated Operational Power AC-3                       | (220 / 230 / 240 V) 3 kW<br>(400 V) 5.5 kW<br>(400 V) Three Phase 5.5 kW<br>(440 V) 5.5 kW<br>(500 V) 5.5 kW<br>(690 V) 3 kW  |
| Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1 | 8 x I <sub>e</sub> / AC-3   |
| Horsepower Rating UL/CSA                           | (208 V AC) Three Phase 3 hp<br>(220 ... 240 V AC) Single Phase 1.5 hp<br>(220 ... 240 V AC) Three Phase 3 hp<br>(440 ... 480 V AC) Three Phase 5 hp<br>(550 ... 600 V AC) Three Phase 5 hp                      |
| Conventional Free-air Thermal Current              | Main Circuit 20 A   |
| Rated Operational Current AC-15                    | (120 V) 4 A<br>(220 / 240 V) 4 A<br>(24 V) 4 A<br>(380 / 400 V) 3 A<br>(500 V) 2 A  |
| Rated Frequency                                    | Control Circuit DC<br>Main Circuit 60 Hz<br>Main Circuit 50Hz<br>Main Circuit DC  |
| Rated Short-time Withstand Current                 | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 96 A   |
| Rated Operational Current AC-3                     | (220 / 230 / 240 V) 55 °C 11.3 A<br>(380 / 400 V) 55 °C 11.5 A<br>(440 V) 55 °C 10.1 A<br>(500 V) 55 °C 9.2 A<br>(690 V) 55 °C 3.8 A  |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1   | 10 x I <sub>e</sub> / AC-3  |
| Maximum Electrical Switching Frequency             | AC-1 300 cycles per hour<br>AC-15 600 cycles per hour<br>AC-3 600 cycles per hour<br>DC-1 600 cycles per hour<br>DC-13 600 cycles per hour<br>DC-3 600 cycles per hour  |
| Short-Circuit Protective Devices                   | gG Type Fuses Type 1&2 25 A   |
| Rated Insulation Voltage                           | 690 V<br>acc. to UL/CSA 600 V   |
| Mechanical Durability                              | 10000000 cycle  |
| Coil Operating Limits                              | (acc. to IEC 60947-4-1) for DC supply 0.85 ... 1.1 x U <sub>c</sub> (at $\theta \leq 55$ °C)  |
| Secondary Rated Impulse Withstand Voltage          | Auxiliary Circuit 6 kV<br>Main Circuit 6 kV   |
| Connecting Capacity Main Circuit                   | Flexible with Ferrule 1/2x 1 ... 2.5 square mm<br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 square mm<br>Flexible 1/2x 1 ... 2.5 square mm<br>Rigid 1/2x 1 ... 4 square mm                                 |
| Rated Operational Current DC-13                    | (110 V) 0.7 A<br>(220 / 240 V) 0.4 A<br>(24 V) 2.5 A  |
| Connecting Capacity Control Circuit                | Flexible with Ferrule 1/2x 1 ... 2.5 square mm<br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 square mm<br>Flexible 1/2x 1 ... 2.5 square mm<br>Rigid 1/2x 1 ... 4 square mm                                 |
| Coil Consumption                                   | Average Holding Value 50 Hz 3.5 V - A<br>Average Pull-in Value 50 Hz 3.5 V - A  |
| Degree of Protection                               | Auxiliary Circuit Terminals IP20<br>Control Circuit Terminals IP20<br>Main Circuit Terminals IP20   |
| Connecting Capacity Auxiliary Circuit              | Flexible with Ferrule 1/2x 1 ... 2.5 square millimetre<br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 square millimetre<br>Flexible 1/2x 1 ... 2.5 square millimetre<br>Rigid 1/2x 1 ... 4 square millimetre |
| Mounting on DIN Rail                               | TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715<br>TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715  |

## Specifications

|                       |   |
|-----------------------|---|
| Screw Terminal Type   | Screw Terminals                             |
| Wire Stripping Length | Auxiliary Circuit 9 mm<br>Main Circuit 9 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 |
| eClass   | 7.0 27371003                              |

## Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Weight         | 0.175 kg |
| Product Net Depth / Length | 46.5 mm  |
| Product Net Width          | 52.5 mm  |
| Product Net Height         | 57.5 mm  |

## Package Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Width          | 115 mm        |
| Package Level 1 Height         | 54 mm         |
| Package Level 1 Depth / Length | 280 mm        |
| Package Level 1 EAN            | 4013614420115 |
| Package Level 1 Units          | 10 piece      |
| Package Level 1 Gross Weight   | 1.82 kg       |

## Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 1        |
| Customs Tariff Number  | 85365080 |