

## PRODUCT-DETAILS

# B7D-30-10-01

## B7D-30-10-01 Mini Contactor 24VDC with diode



### General Information

|                       |                                              |
|-----------------------|----------------------------------------------|
| Extended Product Type | B7D-30-10-01                                 |
| Product ID            | GJL1317001R0101                              |
| EAN                   | 4013614262890                                |
| Catalog Description   | B7D-30-10-01 Mini Contactor 24VDC with diode |

#### Long Description

The B7D-30-10 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.

### Ordering

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

### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100214C0201 |
|-----------------------------------|-----------------|

Instructions and Manuals

2CDC102047M6801

Dimension Diagram

GJL1200436F0001

## Dimensions

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

## Technical

|                                                 |                                                                                                                                                        |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Poles                                 | 3                                                                                                                                                      |
| Mini Contactor Type                             | Mini Contactor                                                                                                                                         |
| Rated Operational Voltage                       | Auxiliary Circuit 690 V AC<br>Auxiliary Circuit 250 V DC<br>Main Circuit 690 V AC<br>Main Circuit 220 V DC                                             |
| Rated Frequency (f)                             | Control Circuit DC<br>Main Circuit 60 Hz<br>Main Circuit 50 Hz<br>Main Circuit DC                                                                      |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )   | Auxiliary Circuit 6 kV<br>Main Circuit 6 kV                                                                                                            |
| Rated Insulation Voltage ( $U_i$ )              | 690 V<br>acc. to UL/CSA 600 V                                                                                                                          |
| Number of Main Contacts NC                      | 0                                                                                                                                                      |
| Number of Main Contacts NO                      | 3                                                                                                                                                      |
| Rated Operational Current AC-1 ( $I_e$ )        | (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 |
| Rated Operational Power AC-3 ( $P_e$ )          | (230 V) Three Phase 3 kW<br>(400 V) Three Phase 5.5 kW<br>(500 V) Three Phase 5.5 kW<br>(690 V) Three Phase, NO 3 kW                                   |
| Rated Short-time Withstand Current ( $I_{cw}$ ) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 96 A                                                                                        |
| Number of Auxiliary Contacts NC                 | 0                                                                                                                                                      |
| Number of Auxiliary Contacts NO                 | 1                                                                                                                                                      |
| Rated Operational Current AC-15 ( $I_e$ )       | (24 V) 4 A<br>(120 V) 4 A<br>(500 V) 2 A<br>(220 / 240 V) 4 A<br>(380 / 400 V) 3 A                                                                     |
| Rated Operational Current DC-13 ( $I_e$ )       | (24 V) 2.5 A<br>(110 V) 0.7 A<br>(220 / 240 V) 0.4 A                                                                                                   |
| Conventional Free-air                           | Main Circuit 20 A                                                                                                                                      |

|                                         |                                                                                                                                                                                                         |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Thermal Current ( $I_{th}$ )            |                                                                                                                                                                                                         |
| Rated Control Circuit Voltage ( $U_c$ ) | 24 V DC                                                                                                                                                                                                 |
| Coil Operating Limits                   | (acc. to IEC 60947-4-1) for DC supply 0.85 ... 1.1 x $U_c$ (at $\theta \leq 55^\circ\text{C}$ )                                                                                                         |
| Degree of Protection                    | Auxiliary Circuit Terminals IP20<br>Control Circuit Terminals IP20<br>Main Circuit Terminals IP20                                                                                                       |
| Mechanical Durability                   | 10000000 cycle                                                                                                                                                                                          |
| Minimum Switching Capacity              | Auxiliary Circuit 17 V<br>Auxiliary Circuit 5 mA                                                                                                                                                        |
| 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                      |
| Connecting Capacity Main Circuit        | Flexible with Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup><br>Flexible 1/2x 1 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 4 mm <sup>2</sup> |
| Connecting Capacity Auxiliary Circuit   | Flexible with Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup><br>Flexible 1/2x 1 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 4 mm <sup>2</sup> |
| Connecting Capacity Control Circuit     | Flexible with Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup><br>Flexible 1/2x 1 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 4 mm <sup>2</sup> |
| Wire Stripping Length                   | Auxiliary Circuit 9 mm<br>Main Circuit 9 mm                                                                                                                                                             |
| Tightening Torque                       | Auxiliary Circuit 0.8 ... 1.1 N·m<br>Control Circuit 0.8 ... 1.1 N·m<br>Main Circuit 0.8 ... 1.1 N·m                                                                                                    |
| 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                                                                                          |
| Power Loss                              | at Rated Operating Conditions per Pole 2 W                                                                                                                                                              |
| 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                                                                                                                    |

## Technical UL/CSA

|                                  |                                                                                                                                                                                                                        |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V AC                                                                                                                                                                                                  |
| Full Load Amps Motor Use         | (115 V AC) Single Phase 13.8 A<br>(200 V AC) Three Phase 7.8 A<br>(220 ... 240 V AC) Three Phase 9.6 A<br>(230 V AC) Single Phase 10 A<br>(440 ... 480 V AC) Three Phase 7.6 A<br>(550 ... 600 V AC) Three Phase 6.1 A |
| Horsepower Rating UL/CSA         | (115 V AC) Single Phase 0.75 Hp<br>(200 V AC) Three Phase 2 Hp<br>(220 ... 240 V AC) Three Phase 3 Hp<br>(230 V AC) Single Phase 1.5 Hp<br>(440 ... 480 V AC) Three Phase 5 Hp<br>(550 ... 600 V AC) Three Phase 5 Hp  |
| General Use Rating UL/CSA        | (600 V AC) 16 A                                                                                                                                                                                                        |

|                                                 |                                                                              |
|-------------------------------------------------|------------------------------------------------------------------------------|
| Connecting Capacity Main<br>Circuit UL/CSA      | Stranded 1/2x 22-10 AWG                                                      |
| Connecting Capacity<br>Auxiliary Circuit UL/CSA | Stranded 1/2x 22-10 AWG                                                      |
| Tightening Torque<br>UL/CSA                     | Auxiliary Circuit 7 in-lb<br>Control Circuit 7 in-lb<br>Main Circuit 7 in-lb |

## Environmental

|                                                   |                                                    |
|---------------------------------------------------|----------------------------------------------------|
| Ambient Air Temperature                           | Operation -20 ... +55 °C<br>Storage -40 ... +80 °C |
| Maximum Operating<br>Altitude Permissible         | 2000 m                                             |
| Resistance to Shock acc.<br>to IEC 60068-2-27     | 11 ms Pulse 15g                                    |
| Resistance to Vibrations<br>acc. to IEC 60068-2-6 | 5g / 5 ... 150 Hz                                  |
| RoHS Status                                       | Following EU Directive 2011/65/EU                  |

## Certificates and Declarations (Document Number)

|                                    |                     |
|------------------------------------|---------------------|
| BV Certificate                     | 1SAA920000-0204     |
| CB Certificate                     | 1SAA938000-2002     |
| CQC Certificate                    | CQC2003010304064033 |
| cULus Certificate                  | cUL_E191658         |
| Declaration of Conformity<br>- CCC | 2020980304001854    |
| Declaration of Conformity<br>- CE  | 1SAD938516-0001     |
| DNV GL Certificate                 | 1SAA938000-0306     |
| EAC Certificate                    | 1SAA920000-2702     |
| Environmental Information          | 1SAC200068H0009     |
| Instructions and Manuals           | 2CDC102047M6801     |
| KC Certificate                     | 1SAA938000-1501     |
| LR Certificate                     | 1SAA938000-0504     |
| RMRS Certificate                   | 1SAA938000-0704     |
| RoHS Information                   | 1SAD938516-0001     |

## Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | 10 piece      |
| Package Level 1 Width             | 115 mm        |
| Package Level 1 Height            | 54 mm         |
| Package Level 1 Depth /<br>Length | 280 mm        |
| Package Level 1 Gross<br>Weight   | 1.82 kg       |
| Package Level 1 EAN               | 4013614420122 |

| 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                                  |

| Accessories     |                            |          |          |                 |
|-----------------|----------------------------|----------|----------|-----------------|
| Identifier      | Description                | Type     | Quantity | Unit Of Measure |
| GJL1201317R0002 | CA6-11E Auxiliary Contact  | CA6-11E  | 1        | piece           |
| GJL1201317R0003 | CA6-11M Auxiliary Contact  | CA6-11M  | 1        | piece           |
| GJL1201317R0004 | CA6-11N Auxiliary Contact  | CA6-11N  | 1        | piece           |
| GJL1201330R0003 | CAF6-11M Auxiliary Contact | CAF6-11M | 1        | piece           |
| GJL1201330R0006 | CAF6-20E Auxiliary Contact | CAF6-20E | 1        | piece           |
| GJL1201330R0011 | CAF6-02M Auxiliary Contact | CAF6-02M | 1        | piece           |
| GJL1201330R0007 | CAF6-20M Auxiliary Contact | CAF6-20M | 1        | piece           |
| GJL1201330R0012 | CAF6-02N Auxiliary Contact | CAF6-02N | 1        | piece           |
| GJL1201330R0008 | CAF6-20N Auxiliary Contact | CAF6-20N | 1        | piece           |
| GJL1201330R0002 | CAF6-11E Auxiliary Contact | CAF6-11E | 1        | piece           |
| GJL1201330R0004 | CAF6-11N Auxiliary Contact | CAF6-11N | 1        | piece           |
| GJL1201330R0010 | CAF6-02E Auxiliary Contact | CAF6-02E | 1        | piece           |
| GJL1201906R0001 | LT6-B Cover Cap            | LT6-B    | 1        | piece           |
| GJL1201907R0001 | LP6 Connecting Link        | LP6      | 1        | piece           |
| GJL1201904R0001 | BN6 Plunger                | BN6      | 1        | piece           |

| Categories                                                                         |  |
|------------------------------------------------------------------------------------|--|
| Low Voltage Products and Systems → Control Products → Contactors → Mini Contactors |  |

