



PRODUCT-DETAILS

BC6-30-01-1.4-81

BC6-30-01-1.4-81 Mini Contactor 24 V DC - 3 NO - 0 NC - Screw Terminals



| General Information   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | BC6-30-01-1.4-81                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Product ID            | GJL1213001R8011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| EAN                   | 4013614053061                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Catalog Description   | BC6-30-01-1.4-81 Mini Contactor 24 V DC - 3 NO - 0 NC - Screw Terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Long Description      | The BC6-30-01 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 4 kW (AC-3) and 20 A (AC-1) or switching of control signals. Due to the low coil consumption, this device can be directly controlled by a PLC. Further features are the noiseless and hum-free coil, 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 | 1SBC100214C0202 |
| Instructions and Manuals          | 2CDC102047M6801 |
| CAD Dimensional Drawing           | 2CDC001079B0201 |
| Dimension Diagram                 | GJL1200436F0001 |

| Dimensions                 |          |
|----------------------------|----------|
| Product Net Width          | 52.5 mm  |
| Product Net Depth / Length | 46.7 mm  |
| Product Net Height         | 57.5 mm  |
| Product Net Weight         | 0.175 kg |

| Technical                                          |                                                                                                                                                        |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts NO                         | 3                                                                                                                                                      |
| Number of Main Contacts NC                         | 0                                                                                                                                                      |
| Number of Auxiliary Contacts NO                    | 0                                                                                                                                                      |
| Number of Auxiliary Contacts NC                    | 1                                                                                                                                                      |
| Number of Poles                                    | 3P                                                                                                                                                     |
| 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<br>IEC 60335-2-40 A2L                                             |
| 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 50 Hz<br>Main Circuit 60 Hz<br>Main Circuit DC                                                                      |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | Main Circuit 20 A                                                                                                                                      |
| 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 Current AC-3 ( $I_e$ )           | (230 V) 55°C 9 A<br>(400 V) 55 °C 9 A<br>(500 V) 55 °C 6.5 A<br>(690 V) NO 55°C 3.5 A                                                                  |
| 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                                  | (24 V) 2.5 A                                                                                                                                           |

|                                                                   |                                                                                                                                                                                                         |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Current DC-13 ( $I_e$ )                                           | (110 V) 0.7 A<br>(220 / 240 V) 0.4 A                                                                                                                                                                    |
| Rated Operational Power<br>AC-3 ( $P_e$ )                         | (230 V) Three Phase 2.2 kW<br>(400 V) Three Phase 4 kW<br>(500 V) Three Phase 4 kW<br>(690 V) Three Phase, NO 3 kW                                                                                      |
| Rated Breaking Capacity<br>AC-3                                   | 8 x $I_e$ / AC-3                                                                                                                                                                                        |
| Rated Making Capacity<br>AC-3                                     | 10 x $I_e$ / AC-3                                                                                                                                                                                       |
| Rated Short-time<br>Withstand Current Low<br>Voltage ( $I_{cw}$ ) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 64 A                                                                                                                                         |
| Rated Insulation Voltage<br>( $U_i$ )                             | 690 V<br>acc. to UL/CSA 600 V                                                                                                                                                                           |
| Rated Impulse<br>Withstand Voltage ( $U_{imp}$ )                  | Auxiliary Circuit 6 kV<br>Main Circuit 6 kV                                                                                                                                                             |
| Maximum Electrical<br>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                      |
| Mechanical Durability                                             | 10000000 cycle                                                                                                                                                                                          |
| Minimum Switching<br>Capacity                                     | Auxiliary Circuit 17 V<br>Auxiliary Circuit 5 mA                                                                                                                                                        |
| Coil Operating Limits                                             | (acc. to IEC 60947-4-1) for DC supply 0.85 ... 1.1 x $U_c$ (at $\theta \leq 55$ °C)                                                                                                                     |
| Rated Control Circuit<br>Voltage ( $U_c$ )                        | 24 V DC                                                                                                                                                                                                 |
| Coil Consumption                                                  | Average Holding Value DC 1.4 W<br>Average Pull-in Value DC 1.4 W                                                                                                                                        |
| Power Loss                                                        | at Rated Operating Conditions AC-1 per Pole 1 W                                                                                                                                                         |
| Mounting on DIN Rail                                              | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715<br>TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715                                                                                          |
| Connecting Capacity<br>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<br>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<br>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                                                                                                                                                             |
| Degree of Protection                                              | Auxiliary Circuit Terminals IP20<br>Control Circuit Terminals IP20<br>Main Circuit Terminals IP20                                                                                                       |
| Recommended Screw<br>Driver                                       | M3<br>Pozidriv 1                                                                                                                                                                                        |
| 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                                                                                                    |
| Terminal Type                                                     | Screw Terminals                                                                                                                                                                                         |
| Mini Contactor Type                                               | Interface Mini Contactor                                                                                                                                                                                |
| Product Name                                                      | Mini Contactor                                                                                                                                                                                          |
| Remarks                                                           | No CA6 or CAF6 mountable                                                                                                                                                                                |

| Technical UL/CSA                             |                                                                                                                                                                                                                        |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Operating Voltage UL/CSA             | Main Circuit 600 V AC                                                                                                                                                                                                  |
| General Use Rating UL/CSA                    | (300 V AC) 12 A                                                                                                                                                                                                        |
| Horsepower Rating UL/CSA                     | (115 V AC) Single Phase 0.25 Hp<br>(200 V AC) Three Phase 1 Hp<br>(220 ... 240 V AC) Three Phase 2 Hp<br>(230 V AC) Single Phase 0.5 Hp<br>(440 ... 480 V AC) Three Phase 3 Hp<br>(550 ... 600 V AC) Three Phase 1 Hp  |
| Connecting Capacity Main Circuit UL/CSA      | Stranded 1/2x 22-10 AWG                                                                                                                                                                                                |
| Connecting Capacity Auxiliary Circuit UL/CSA | Stranded 1/2x 22-10 AWG                                                                                                                                                                                                |
| Contact Rating UL/CSA                        | A600                                                                                                                                                                                                                   |
| Tightening Torque UL/CSA                     | Auxiliary Circuit 7 in-lb<br>Control Circuit 7 in-lb<br>Main Circuit 7 in-lb                                                                                                                                           |
| Full Load Amps Motor Use                     | (115 V AC) Single Phase 5.8 A<br>(200 V AC) Three Phase 4.8 A<br>(220 ... 240 V AC) Three Phase 6.8 A<br>(230 V AC) Single Phase 4.9 A<br>(440 ... 480 V AC) Three Phase 4.8 A<br>(550 ... 600 V AC) Three Phase 1.7 A |

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

| Material Compliance                         |                                                                        |
|---------------------------------------------|------------------------------------------------------------------------|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658                                                        |
| REACH Declaration                           | 2CMT2021-006202                                                        |
| RoHS Information                            | 2CMT2021-006277                                                        |
| RoHS Status                                 | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| Toxic Substances Control Act - TSCA         | 2CMT2023-006525                                                        |
| WEEE B2C / B2B                              | Business To Business                                                   |
| WEEE Category                               | 5. Small Equipment (No External Dimension More Than 50 cm)             |

| ABB EcoSolutions                        |                 |
|-----------------------------------------|-----------------|
| End Of Life Disassembling Instructions  | 1SBC100156C0269 |
| Environmental Product Declaration - EPD | 1SAC200409H0001 |

## Certificates and Declarations

|                                     |                     |
|-------------------------------------|---------------------|
| A2L Certificate – IEC               | 1SAA938000-4601     |
| BV Certificate                      | 1SAA920000-0204     |
| CB Certificate                      | 1SAA938000-2002     |
| CQC Certificate                     | CQC2003010304064033 |
| cULus Certificate                   | cUL_E191658         |
| Declaration of<br>Conformity - CCC  | 2020980304001854    |
| Declaration of<br>Conformity - CE   | 1SAD101100-3101     |
| Declaration of<br>Conformity - UKCA | 1SAD201100-3101     |
| DNV GL Certificate                  | 1SAA938000-0306     |
| EAC Certificate                     | 1SAA920000-2702     |
| KC Certificate                      | 1SAA938000-1501     |
| LR Certificate                      | 1SAA938000-0504     |
| RMRS Certificate                    | 1SAA938000-0704     |

## Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | box 10 piece  |
| Package Level 1 Width             | 115 mm        |
| Package Level 1 Depth /<br>Length | 280 mm        |
| Package Level 1 Height            | 54 mm         |
| Package Level 1 Gross<br>Weight   | 1.82 kg       |
| Package Level 1 EAN               | 4013614414763 |

## Classifications

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| Object Classification<br>Code         | Q                                        |
| ETIM 7                                | EC000066 - Power contactor, AC switching |
| ETIM 8                                | EC000066 - Power contactor, AC switching |
| ETIM 9                                | EC000066 - Power contactor, AC switching |
| eClass                                | V11.0 : 27371003                         |
| UNSPSC                                | 39121529                                 |
| IDEA Granular Category<br>Code (IGCC) | 4763 >> Power contactor, DC switching    |
| E-Number (Finland)                    | 3709134                                  |
| E-Number (Norway)                     | 4184101                                  |
| E-Number (Sweden)                     | 3210081                                  |

Categories

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

