



PRODUCT-DETAILS

BC6-30-10-F-1.4-81

BC6-30-10-F-1.4-81 Mini Contactor 24 V DC - 3  
NO - 0 NC - Flat-Pin Connections



| General Information   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | BC6-30-10-F-1.4-81                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product ID            | GJL1213003R8101                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| EAN                   | 4013614053252                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Catalog Description   | BC6-30-10-F-1.4-81 Mini Contactor 24 V DC - 3 NO - 0 NC - Flat-Pin Connections                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Long Description      | The BC6-30-10-F mini contactor is a compact 3 pole contactor with 1 auxiliary contact and flat pin connector. They are ideally suited for applications where reliability is a must and space is at a premium. Mini contactors are used in residential buldings, 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 | 1SBC100214C0202 |

|                          |                 |
|--------------------------|-----------------|
| Information              |                 |
| Instructions and Manuals | 2CDC102047M6801 |
| CAD Dimensional Drawing  | 2CDC001079B0201 |
| Dimension Diagram        | GJL1200437F0001 |

Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 52.5 mm |
| Product Net Depth / Length | 46.7 mm |
| Product Net Height         | 57.5 mm |
| Product Net Weight         | 0.17 kg |

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                                                                                                                                                      |
| 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 60 Hz<br>Main Circuit 50 Hz<br>Main Circuit DC                                                                      |
| Conventional Free-air Thermal Current (I <sub>th</sub> ) | Main Circuit 20 A                                                                                                                                      |
| Rated Operational Current AC-1 (I <sub>e</sub> )         | (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 <sub>e</sub> )         | (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 <sub>e</sub> )        | (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 <sub>e</sub> )        | (24 V) 2.5 A<br>(110 V) 0.7 A<br>(220 / 240 V) 0.4 A                                                                                                   |
| Rated Operational Power AC-3 (P <sub>e</sub> )           | (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 AC-3                             | 8 x I <sub>e</sub> / AC-3                                                                                                                              |
| Rated Making Capacity AC-3                               | 10 x I <sub>e</sub> / AC-3                                                                                                                             |

|                                                             |                                                                                                                                                                                    |                      |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ ) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 64 A                                                                                                                    |                      |
| Rated Insulation Voltage ( $U_i$ )                          | 690 V                                                                                                                                                                              | acc. to UL/CSA 600 V |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )               | Auxiliary Circuit 6 kV<br>Main Circuit 6 kV                                                                                                                                        |                      |
| 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 |                      |
| Mechanical Durability                                       | 10000000 cycle                                                                                                                                                                     |                      |
| Minimum Switching 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 $\theta \leq 55\text{ °C}$ )                                                                                        |                      |
| Rated Control Circuit 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                                                                     |                      |
| Degree of Protection                                        | Auxiliary Circuit Terminals IP20<br>Control Circuit Terminals IP20<br>Main Circuit Terminals IP20                                                                                  |                      |
| Terminal Type                                               | Flat-Pin Connections                                                                                                                                                               |                      |
| 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  |
| Contact Rating UL/CSA            | A600                                                                                                                                                                                                                   |
| 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

|                                         |                 |
|-----------------------------------------|-----------------|
| Environmental Product Declaration - EPD | 1SAC200409H0001 |
|-----------------------------------------|-----------------|

Certificates and Declarations

|                                  |                     |
|----------------------------------|---------------------|
| A2L Certificate - IEC            | 1SAA938000-4601     |
| BV Certificate                   | 1SAA920000-0204     |
| CB Certificate                   | 1SAA938000-2002     |
| CQC Certificate                  | CQC2003010304064033 |
| cURus Certificate                | cUL_E191658         |
| Declaration of Conformity - CCC  | 2020980304001854    |
| Declaration of Conformity - CE   | 1SAD101100-3101     |
| Declaration of 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 / Length | 280 mm        |
| Package Level 1 Height         | 54 mm         |
| Package Level 1 Gross Weight   | 1.77 kg       |
| Package Level 1 EAN            | 4013614414992 |

Classifications

|                                    |                                          |
|------------------------------------|------------------------------------------|
| Object Classification 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 Code (IGCC) | 4763 >> Power contactor, DC switching    |

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## Categories

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

