

## PRODUCT-DETAILS

# B6-30-10-80

## B6-30-10-80 Mini Contactor 220-240V 40-450Hz



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | B6-30-10-80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Product ID            | GJL1211001R8100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| EAN                   | 4013614150647                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Catalog Description   | B6-30-10-80 Mini Contactor 220-240V 40-450Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Long Description      | The B6-30-10 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 4 kW (AC-3) and 20 A / 690 V (AC-1) or switching of control signals. Further features are the silent 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 Height         | 57.5 mm  |
| Product Net Depth / Length | 46.7 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 400 Hz<br>Control Circuit 50 Hz<br>Control Circuit 60 Hz<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 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 Short-time Withstand Current Low Voltage ( $I_{cw}$ ) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 64 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 Thermal Current ( $I_{th}$ )          | Main Circuit 20 A                                                                                                                                      |
| Rated Control Circuit Voltage ( $U_c$ )                     | 220 ... 240 V AC                                                                                                                                       |
| Coil Operating Limits                                       | (acc. to IEC 60947-4-1) for AC supply 0.85 ... 1.1 x $U_c$ (at $\theta \leq 55$ °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                   | TH35-15 (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                                                                                          |
| Power Loss                             | at Rated Operating Conditions per Pole 2 W<br>at Rated Operating Conditions AC-1 per Pole 1 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 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 |
| 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  |
| General Use Rating UL/CSA                    | (300 V AC) 12 A                                                                                                                                                                                                        |
| Contact Rating UL/CSA                        | A600                                                                                                                                                                                                                   |
| Connecting Capacity Main Circuit UL/CSA      | Stranded 1/2x 22-10 AWG                                                                                                                                                                                                |
| Connecting Capacity Auxiliary Circuit UL/CSA | Stranded 1/2x 22-10 AWG                                                                                                                                                                                                |
| Tightening Torque UL/CSA                     | Auxiliary Circuit 7 in·lb<br>Control Circuit 7 in·lb<br>Main Circuit 7 in·lb                                                                                                                                           |

## Environmental

|                                        |                                                    |
|----------------------------------------|----------------------------------------------------|
| Ambient Air Temperature                | Operation -25 ... +55 °C<br>Storage -40 ... +80 °C |
| Maximum Operating 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 and Amendment 2015/863 July 22, 2019 |

## Certificates and Declarations (Document Number)

|                                     |                     |
|-------------------------------------|---------------------|
| BV Certificate                      | 1SAA920000-0204     |
| CB Certificate                      | 1SAA938000-2002     |
| CQC Certificate                     | CQC2003010304064033 |
| Declaration of Conformity<br>- CCC  | 2020980304001854    |
| Declaration of Conformity<br>- CE   | 1SAD938517-0001     |
| Declaration of Conformity<br>- UKCA | 1SAD938501-1001     |
| DNV GL Certificate                  | 1SAA938000-0306     |
| EAC Certificate                     | 1SAA920000-2702     |
| Environmental Information           | 1SAC200067H0009     |
| Instructions and Manuals            | 2CDC102047M6801     |
| KC Certificate                      | 1SAA938000-1501     |
| LR Certificate                      | 1SAA938000-0504     |
| REACH Declaration                   | 2CMT2021-006202     |
| RMRS Certificate                    | 1SAA938000-0704     |
| RoHS Information                    | 2CMT2021-006277     |
| UL Certificate                      | E191658-19881208    |

## Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | box 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               | 4013614412677 |

## 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  |
| ETIM 8                     | EC000066 - Power contactor, AC switching  |
| eClass                     | V11.0 : 27371003                          |
| UNSPSC                     | 39121529                                  |
| E-Number (Finland)         | 3709109                                   |
| E-Number (Sweden)          | 3210024                                   |

## 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           |

### Where Used (as a spare part for "Products")

| Identifier   | Description              | Quantity | Unit Of Measure |
|--------------|--------------------------|----------|-----------------|
| 9AAC30400163 | No Description Available | 1        | piece           |
| 9AAC30400421 | No Description Available | 1        | piece           |
| 9AAC30403877 | No Description Available | 1        | piece           |
| 9AAC30404896 | No Description Available | 1        | piece           |
| 9AAF404899   | No Description Available | 1        | piece           |
| 9AAF404900   | No Description Available | 1        | piece           |
| 9AAF407277   | No Description Available | 1        | piece           |
| 9AAF408067   | No Description Available | 1        | piece           |

### Product specific part data

| Product      | Category                    | Switchgear Part Category     |
|--------------|-----------------------------|------------------------------|
| 9AAC30400163 | SafePlus up to 24kV         | Auxiliary Contactor<br>Motor |
| 9AAC30400421 | SafeRing up to 24kV         | Auxiliary Contactor<br>Motor |
| 9AAC30403877 | SafeRing 36-40,5kV          | Auxiliary Contactor<br>Motor |
| 9AAC30404896 | SafePlus 36-40,5kV          | Auxiliary Contactor<br>Motor |
| 9AAF404899   | SafeRing Air up to 12kV     | Auxiliary Contactor<br>Motor |
| 9AAF404900   | SafePlus Air up to 12kV     | Motor<br>Auxiliary Contactor |
| 9AAF407277   | SafeRing AirPlus up to 24kV | Auxiliary Contactor<br>Motor |
| 9AAF408067   | SafePlus AirPlus up to 24kV | Auxiliary Contactor<br>Motor |

### Categories

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

Medium Voltage Products and Systems → Switchgear and Motor Control → Gas Insulated Secondary Switchgear (ecoGIS) → SafePlus (ecoGIS) → SafePlus Air up to 12kV

Medium Voltage Products and Systems → Switchgear and Motor Control → Gas Insulated Secondary Switchgear (ecoGIS) → SafePlus (ecoGIS) → SafePlus AirPlus up to 24kV

Medium Voltage Products and Systems → Switchgear and Motor Control → Gas Insulated Secondary Switchgear (ecoGIS) → SafeRing (ecoGIS) → SafeRing Air up to 12kV

Medium Voltage Products and Systems → Switchgear and Motor Control → Gas Insulated Secondary Switchgear (ecoGIS) → SafeRing (ecoGIS) → SafeRing AirPlus up to 24kV

Medium Voltage Products and Systems → Switchgear and Motor Control → Gas Insulated Secondary Switchgear (SF6) → SafePlus → SafePlus 36-40,5kV

Medium Voltage Products and Systems → Switchgear and Motor Control → Gas Insulated Secondary Switchgear (SF6) → SafePlus → SafePlus up to 24kV

Medium Voltage Products and Systems → Switchgear and Motor Control → Gas Insulated Secondary Switchgear (SF6) → SafeRing → SafeRing 36-40,5kV

Medium Voltage Products and Systems → Switchgear and Motor Control → Gas Insulated Secondary Switchgear (SF6) → SafeRing → SafeRing up to 24kV

