

## PRODUCT-DETAILS

# VBC6A-30-01-03

## VBC6A-30-01-03 Mini Rev.Contactor 60VDC



### General Information

|                       |                                         |
|-----------------------|-----------------------------------------|
| Extended Product Type | VBC6A-30-01-03                          |
| Product ID            | GJL1213911R0013                         |
| EAN                   | 4013614243172                           |
| Catalog Description   | VBC6A-30-01-03 Mini Rev.Contactor 60VDC |

#### Long Description

The VBC6A-30-01 mini reversing contactor is a compact 3 pole contactor with 1 auxiliary contact, screw terminals and mechanical interlock and safety blocking. They are ideally suited for applications where reliability is a must and space is at a premium. Mini reversing contactors are used in residential buildings, commercial buildings and industrial applications for the control of three-phase motor loads up to 4 kW (AC-3). 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 | 1SBC100214C0201 |
| Instructions and Manuals          | 2CDC102046M6801 |

## Dimension Diagram

GJL1200447F0001

## Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 96.5 mm  |
| Product Net Height         | 57.5 mm  |
| Product Net Depth / Length | 46.5 mm  |
| Product Net Weight         | 0.355 kg |

## Technical

|                                                    |                                                                                                                                                        |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Poles                                    | 3                                                                                                                                                      |
| 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 ( $U_{imp}$ )      | 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 ( $I_{cw}$ )    | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 64 A                                                                                        |
| Number of Auxiliary Contacts NC                    | 1                                                                                                                                                      |
| Number of Auxiliary Contacts NO                    | 0                                                                                                                                                      |
| Rated Operational Current AC-15 ( $I_e$ )          | (440 V AC) 3 A<br>(24 V) 4 A<br>(120 V) 4 A<br>(240 V) 4 A<br>(500 V) 2 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                              | 60 V DC                                                                                                                                                |

Voltage (U<sub>c</sub>)

|                                        |                                                                                                                                                                                                         |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil Operating Limits                  | (acc. to IEC 60947-4-1) for DC supply 0.85 ... 1.1 x U <sub>c</sub> (at $\theta \leq 55^\circ\text{C}$ )                                                                                                |
| Degree of Protection                   | Auxiliary Circuit Terminals IP20<br>Control Circuit Terminals IP20<br>Main Circuit Terminals IP20                                                                                                       |
| Pollution Degree                       | 3                                                                                                                                                                                                       |
| 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                      | 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 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                                                                                                                                                                                                        |
| Connecting Capacity Main 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          | 1SAC200067H0009     |
| Instructions and Manuals           | 2CDC102046M6801     |
| KC Certificate                     | 1SAA938000-1501     |
| LR Certificate                     | 1SAA938000-0504     |
| RMRS Certificate                   | 1SAA938000-0704     |
| RoHS Information                   | 1SAD938516-0001     |

## Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | 5 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   | 1.845 kg      |
| Package Level 1 EAN               | 4013614416217 |

## Classifications

|                            |   |
|----------------------------|---|
| Object Classification Code | Q |
|----------------------------|---|

|        |                                           |
|--------|-------------------------------------------|
| ETIM 4 | EC000066 - Magnet contactor, AC-switching |
| ETIM 5 | EC000010 - Starter combination            |
| ETIM 6 | EC000010 - Combination of contactors      |
| ETIM 7 | EC000010 - Combination of contactors      |
| eClass | V11.0 : 27371009                          |
| UNSPSC | 39121529                                  |

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### Categories

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

