

## PRODUCT-DETAILS

# VBC7A-30-10-05

## VBC7A-30-10-05 Mini Rev.Contactor 220-240VDC



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | VBC7A-30-10-05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Product ID            | GJL1313911R0105                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| EAN                   | 4013614192500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Catalog Description   | VBC7A-30-10-05 Mini Rev.Contactor 220-240VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Long Description      | <p>The VBC7A-30-10 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 5.5 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.</p> |

### 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)                                | 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 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                                                                                                                                                                                                       |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | Main Circuit 20 A                                                                                                                                                                                       |
| Rated Control Circuit Voltage ( $U_c$ )            | 220 ... 240 V DC                                                                                                                                                                                        |
| Coil Operating Limits                              | (acc. to IEC 60947-4-1) for DC supply 0.85 ... 1.1 x $U_c$ (at $\theta \leq 55$ °C)                                                                                                                     |
| Degree of Protection                               | 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>                                       |

|                       |                                                        |
|-----------------------|--------------------------------------------------------|
|                       | Rigid 1/2x 1 ... 4 mm²                                 |
| Connecting Capacity   | Flexible with Ferrule 1/2x 1 ... 2.5 mm²               |
| Control Circuit       | Flexible with Insulated Ferrule 1/2x 1 ... 2.5 mm²     |
|                       | Flexible 1/2x 1 ... 2.5 mm²                            |
|                       | Rigid 1/2x 1 ... 4 mm²                                 |
| Wire Stripping Length | Auxiliary Circuit 9 mm                                 |
|                       | Main Circuit 9 mm                                      |
| Tightening Torque     | Control Circuit 0.8 ... 1.1 N·m                        |
|                       | 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 |
|                       | 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                                         |
|                       | IEC/EN 60947-4-1                                       |
|                       | IEC/EN 60947-5-1                                       |
|                       | UL 60947-1                                             |
|                       | 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       |
|                                              | (200 V AC) Three Phase 7.8 A         |
|                                              | (220 ... 240 V AC) Three Phase 9.6 A |
|                                              | (230 V AC) Single Phase 10 A         |
|                                              | (440 ... 480 V AC) Three Phase 7.6 A |
|                                              | (550 ... 600 V AC) Three Phase 6.1 A |
| Horsepower Rating UL/CSA                     | (115 V AC) Single Phase 0.75 Hp      |
|                                              | (200 V AC) Three Phase 2 Hp          |
|                                              | (220 ... 240 V AC) Three Phase 3 Hp  |
|                                              | (230 V AC) Single Phase 1.5 Hp       |
|                                              | (440 ... 480 V AC) Three Phase 5 Hp  |
|                                              | (550 ... 600 V AC) Three Phase 5 Hp  |
| General Use Rating UL/CSA                    | (600 V AC) 16 A                      |
| 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            |
|                                              | Control Circuit 7 in·lb              |
|                                              | Main Circuit 7 in·lb                 |

## Environmental

|                                                |                                   |
|------------------------------------------------|-----------------------------------|
| Ambient Air Temperature                        | Operation -20 ... +55 °C          |
|                                                | 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 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 - CCC | 2020980304001854    |

|                                   |                 |
|-----------------------------------|-----------------|
| Declaration of Conformity<br>- CE | 1SAD938516-0001 |
| DNV GL Certificate                | 1SAA938000-0306 |
| EAC Certificate                   | 1SAA920000-2702 |
| Environmental Information         | 1SAC200068H0009 |
| 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               | 4013614419720 |

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                                  |

Categories

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

