

## PRODUCT-DETAILS

# VB7A-30-10-01

## VB7A-30-10-01 Mini Rev.Contactor 24V 40-450Hz



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | VB7A-30-10-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Product ID            | GJL1311911R0101                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| EAN                   | 4013614157462                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Catalog Description   | VB7A-30-10-01 Mini Rev.Contactor 24V 40-450Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Long Description      | The VB7A-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 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 | 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 ( $U_c$ )            | 24 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                               | 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                                                                                              |

|                                       |                                                                                                                                                                                                         |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       | (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 13.8 A<br>(200 V AC) Three Phase 7.8 A<br>(220 ... 240 V AC) Three Phase 9.6 A<br>(230 V AC) Single Phase 10 A<br>(440 ... 480 V AC) Three Phase 7.6 A<br>(550 ... 600 V AC) Three Phase 6.1 A |
| Horsepower Rating UL/CSA                     | (115 V AC) Single Phase 0.75 Hp<br>(200 V AC) Three Phase 2 Hp<br>(220 ... 240 V AC) Three Phase 3 Hp<br>(230 V AC) Single Phase 1.5 Hp<br>(440 ... 480 V AC) Three Phase 5 Hp<br>(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<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       | 2000 m                                             |

## Altitude Permissible

|                                               |                 |
|-----------------------------------------------|-----------------|
| 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 |
|---------------------------------------------------|-------------------|

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|-------------|-----------------------------------|
| RoHS Status | Following EU Directive 2011/65/EU |
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**Certificates and Declarations (Document Number)**


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|                                    |                     |
|------------------------------------|---------------------|
| 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  | 1SAD938517-0001     |
| 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                   | 1SAD938517-0001     |

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**Container Information**


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|-----------------------------------|---------------|
| 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               | 4013614417818 |

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**Classifications**


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|----------------------------|-------------------------------------------|
| 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

