



Representative Image

## Alternate Catalog No. VB6A-30-10-84 Catalog No. GJL1211911R8104

**Description:** VB6A-30-10-84 Mini Rev. Contactor 110-127V 40-450Hz

**UPC No** 4013614155536

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The VB6A-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 4 kW (AC-3). Further features are the silent coil, a switch position indication and the integrated possibility for rail or wall mounting.

### Descriptors

|          |               |
|----------|---------------|
| Category | AF Contactors |
|----------|---------------|

### Specifications

|                                                |                                                                                                                                                        |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type                                   | Mini Contactors (B6, B7)                                                                                                                               |
| General Use Rating UL/CSA                      | (300 V AC) 12 A                                                                                                                                        |
| Object Classification Code                     | Q                                                                                                                                                      |
| Terminal Type                                  | Screw Terminals                                                                                                                                        |
| Rated Control Circuit Voltage                  | 110 ... 127 V AC                                                                                                                                       |
| Number of Main Contacts NO                     | 3                                                                                                                                                      |
| Connecting Capacity Auxiliary Circuit UL/CSA   | Stranded 1/2x 22-10 american wire gauge                                                                                                                |
| Number of Main Contacts NC                     | 0                                                                                                                                                      |
| Maximum Operating Voltage UL/CSA               | Main Circuit 600 V AC                                                                                                                                  |
| Connecting Capacity Main Circuit UL/CSA        | Stranded 1/2x 22-10 american wire gauge                                                                                                                |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5g / 5 ... 150 Hz                                                                                                                                      |
| Number of Auxiliary Contacts NO                | 1                                                                                                                                                      |
| Connecting Capacity Main Circuit UL/CSA        | Stranded 1/2x 22-10 american wire gauge                                                                                                                |
| RoHS Status                                    | Following EU Directive 2011/65/EU                                                                                                                      |
| Reference Ambient Air Temperature              | Operation -20 ... +55 °C                                                                                                                               |
| Rated Operational Voltage                      | Auxiliary Circuit 12 ... 240 V DC<br>Auxiliary Circuit 12 ... 500 V AC<br>Main Circuit 690 V AC                                                        |
| Resistance to Shock acc. to IEC 60068-2-27     | 11 ms Pulse 15g                                                                                                                                        |
| Number of Auxiliary Contacts NC                | 0                                                                                                                                                      |
| Tightening Torque UL/CSA                       | Auxiliary Circuit 7 in-lb (pound inch)<br>Control Circuit 7 in-lb (pound inch)<br>Main Circuit 7 in-lb (pound inch)                                    |
| Maximum Operating Altitude Permissible         | 2000 m                                                                                                                                                 |
| Rated Operational Current AC-1                 | (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 |

**by ABB**

## Specifications

|                                                    |                                                                                                                                                                                                                        |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                                   |
| Rated Operational Power AC-3                       | 4 kW<br>(220 / 230 / 240 V) 2.2 kW<br>(400 V) 4 kW<br>(440 V) 4 kW<br>(500 V) 4 kW<br>(690 V) 3 kW                                                                                                                     |
| Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1 | 8 x I <sub>e</sub> / AC-3                                                                                                                                                                                              |
| Horsepower Rating UL/CSA                           | (208 V AC) Three Phase 1 hp<br>(220 ... 240 V AC) Single Phase 0.5 hp<br>(220 ... 240 V AC) Three Phase 2 hp<br>(440 ... 480 V AC) Three Phase 3 hp<br>(550 ... 600 V AC) Three Phase 1 hp                             |
| Conventional Free-air Thermal Current              | Main Circuit 20 A                                                                                                                                                                                                      |
| Rated Frequency                                    | Control Circuit 400 Hz<br>Control Circuit 50 Hz<br>Control Circuit 60 Hz<br>Main Circuit 60 Hz<br>Main Circuit 50Hz<br>Main Circuit DC                                                                                 |
| Rated Short-time Withstand Current                 | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 64 A                                                                                                                                                        |
| Rated Operational Current AC-3                     | (220 / 230 / 240 V) 55 °C 8.5 A<br>(380 / 400 V) 55 °C 8.5 A<br>(440 V) 55 °C 7.4 A<br>(500 V) 55 °C 6.8 A<br>(690 V) 55 °C 3.8 A                                                                                      |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1   | 10 x I <sub>e</sub> / AC-3                                                                                                                                                                                             |
| 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                                                 |
| Rated Insulation Voltage                           | 690 V<br>acc. to UL/CSA 600 V                                                                                                                                                                                          |
| Mechanical Durability                              | 10000000 cycle                                                                                                                                                                                                         |
| Coil Operating Limits                              | (acc. to IEC 60947-4-1) for AC supply 0.85 ... 1.1 x U <sub>c</sub> (at $\theta \leq 55^\circ \text{C}$ )<br>(acc. to IEC 60947-4-1) for DC supply 0.85 ... 1.1 x U <sub>c</sub> (at $\theta \leq 55^\circ \text{C}$ ) |
| Secondary Rated Impulse Withstand Voltage          | Main Circuit 6 kV                                                                                                                                                                                                      |
| Connecting Capacity Main Circuit                   | Flexible with Ferrule 1/2x 1 ... 2.5 square mm<br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 square mm<br>Flexible 1/2x 1 ... 2.5 square mm<br>Rigid 1/2x 1 ... 4 square mm                                        |
| Connecting Capacity Control Circuit                | Flexible with Ferrule 1/2x 1 ... 2.5 square mm<br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 square mm<br>Flexible 1/2x 1 ... 2.5 square mm<br>Rigid 1/2x 1 ... 4 square mm                                        |
| Coil Consumption                                   | Average Holding Value 50 Hz 3.5 V - A<br>Average Pull-in Value 50 Hz 3.5 V - A                                                                                                                                         |
| Degree of Protection                               | Auxiliary Circuit Terminals IP20<br>Control Circuit Terminals IP20<br>Main Circuit Terminals IP20                                                                                                                      |
| Connecting Capacity Auxiliary Circuit              | Flexible with Ferrule 1/2x 1 ... 2.5 square millimetre<br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 square millimetre<br>Flexible 1/2x 1 ... 2.5 square millimetre<br>Rigid 1/2x 1 ... 4 square millimetre        |
| 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                                                                                                         |
| Screw Terminal Type                                | Screw Terminals                                                                                                                                                                                                        |
| Wire Stripping Length                              | Auxiliary Circuit 9 mm<br>Main Circuit 9 mm                                                                                                                                                                            |

## Classifications

|          |                                           |
|----------|-------------------------------------------|
| ETIM 4   | EC000066 - Magnet contactor, AC-switching |
| ETIM 6.0 | EC000010 - Combination of contactors      |
| ETIM 7   | EC000010 - Combination of contactors      |
| ETIM 5.0 | EC000010 - Starter combination            |
| eClass   | 7.0 27371009                              |

## Dimensions

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

## Package Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Width          | 115 mm        |
| Package Level 1 Height         | 54 mm         |
| Package Level 1 Depth / Length | 280 mm        |
| Package Level 1 EAN            | 4013614414244 |
| Package Level 1 Units          | 5 piece       |
| Package Level 1 Gross Weight   | 1.845 kg      |

## Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 1        |
| Customs Tariff Number  | 85365080 |