



Jennings Technology®

JEVB500 series DC contactors

Engineered to exceed expectations.

With the increasing demand for power in remote areas, environmentally friendly technology such as battery energy storage and microgrids are a necessity. One product is critical to the safety of the electrical circuit: the DC contactor. With the consumer now adapting to this new green technology, quality and reliability are paramount in today's emerging markets where performance needs to be optimal.

The unique feature of the bidirectional DC contactor is that it can switch current in a DC system, even if the direction of the current changes. The bidirectional DC contactor is a simple solution for applications that require charging and discharging because it safely cuts off the current flowing through the main contact in the opposite direction.

Jennings research has once again enhanced the DC contactor by enabling this new technology to aid in lowering the world's carbon footprint. Its innovative and compact design reduces the weight of the device but still allows for very high mechanical life. Minimizing power consumption creates higher power efficiencies for all controlling circuitry, reducing load consumption. All of this allows the Jennings DC contactor to operate in critical circuits and applications with the highest reliability and performance. As with all Jennings products, these high power DC switching devices are built in accordance with all industrial and commercial standards.

- UL508 Listed for the U.S. and Canada
- RoHS compliant
- Hermetically sealed, intrinsically safe, operates in explosive/harsh environments with no oxidation or contamination of coils or contacts during long periods of nonoperation
- Rugged, compact contactor for switching voltages from 50 VDC to 1000+ VDC
- High-efficiency DC coils — very low 12 and 24 VDC continuous power coils with no EMI emissions or cross-talk on your system control power



Specifications

Contact ratings

| | |
|--|---|
| Contact arrangement | 1 Form A, SPST-NO |
| Max. continuous current | 500A |
| Max. switching current | 500A @ 750 VDC (UL) 300A @ 1000 VDC (UL) 100A @ 1500 VDC (UL) |
| Contact rating switching voltages | 12–1500 VDC 100A |
| Max. switching capacity @ max. voltage | 100A @ 1500 VDC |
| General aux. contact current, max. | 2A 30 VDC/3A 125 VAC |
| General aux. contact current, min. | 100mA 8 VDC |
| Gold alloy aux. contact current, max. | 0.1A 30 VDC/0.1A 30 VAC |
| Gold alloy aux. contact current, min. | 1mA 5 VDC/1mA 5 VAC |
| Operating time at nominal voltage | 40ms |
| Release time at nominal voltage | 10ms |

Coil ratings

| | | |
|----------------------------------|---------|----------|
| Nom. voltage | 12 | 24 |
| Inrush coil current 100ms (max.) | 1.5A | 0.7A |
| Holding coil current (mA) | 0.35A | 0.20A |
| Pick-up voltage (V) max. | 9 VDC | 18 VDC |
| Drop-out voltage (V) min. | 6 VDC | 12 VDC |
| Holding voltage (V) min. | 7.5 VDC | 13.5 VDC |
| Max. voltage (V) | 18 VDC | 32 VDC |

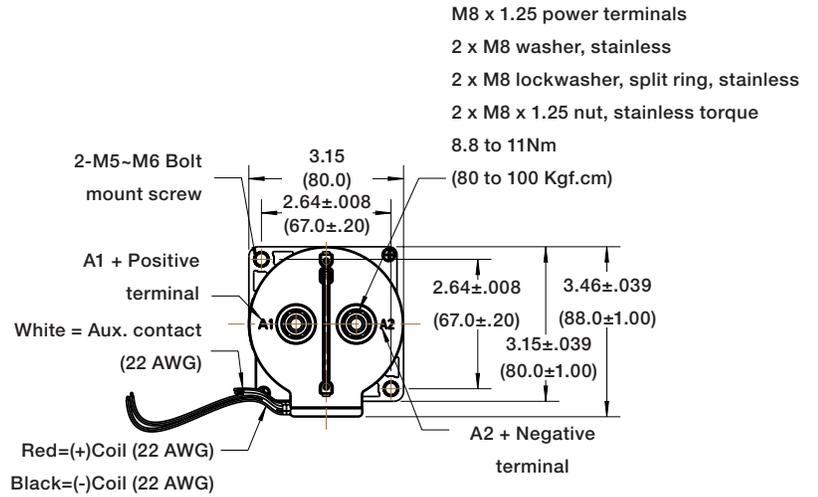
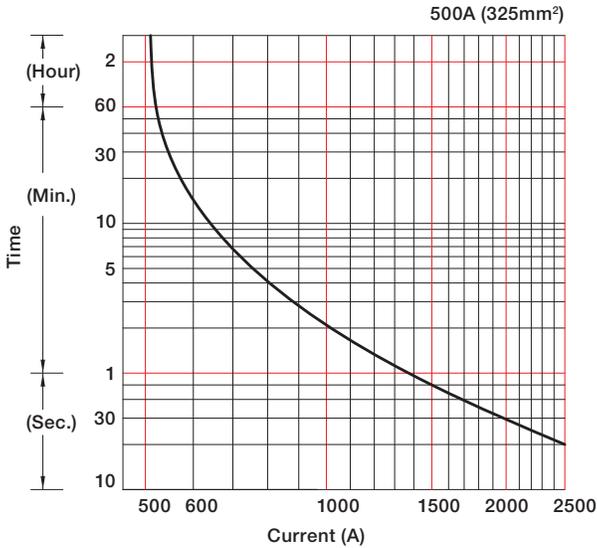
Expected life

| | |
|------------------------|--|
| Mechanical life (min.) | 2,000,000 operations |
| Electrical life (min.) | 1,000 @ 750 VDC (+), (-) 500A 1,000 @ 1,000 VDC (+), (-) 300A 1,000 @ 1,500 VDC (+), (-) 100A |

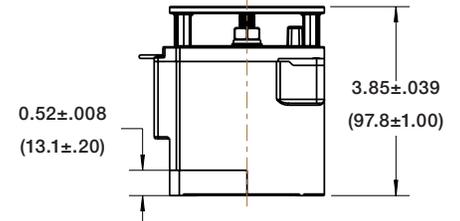
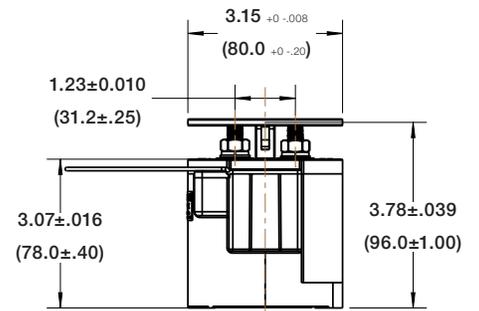
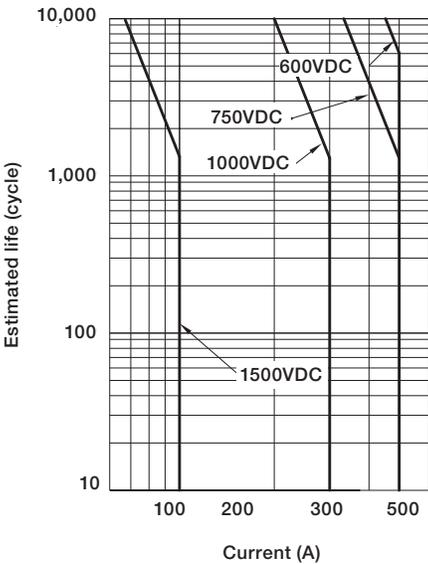
Other

| | |
|-----------------------------------|-------------------------------------|
| Weight | 1200g (2 lb.) |
| Operating and storage temperature | -40° C ~ 85° C (-40° F ~ 185° F) |
| Relative humidity | 5–85% |

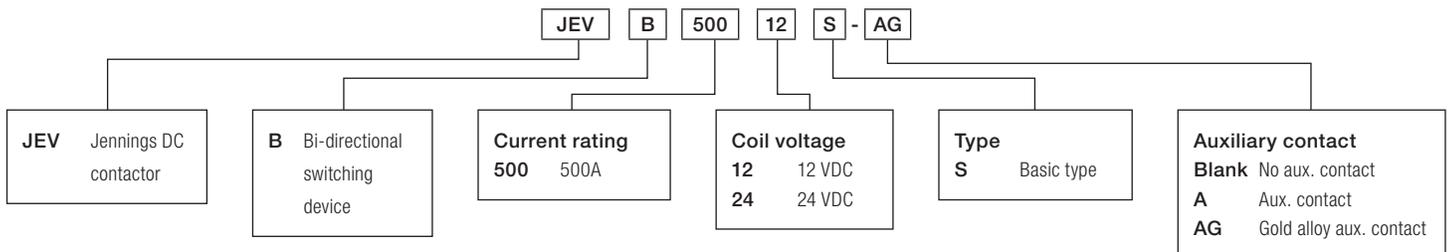
Continuous carrying current



Make and break switching rating (resistive load)



Catalog number configurator



Example: Catalog No. JEV B50012S-AG is a 500 amp, basic type contactor with 12 volt coil and gold alloy auxiliary contact.

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Industry codes and specifications

All Thomas & Betts products meet or exceed applicable industry specifications or codes which are detailed in the appropriate T&B product literature.

IEEE ANSI IEC

Online CAD library

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