



KILOVAC EV100

Rugged 600 VDC, 100 Amp Hermetically Sealed DC Contactors

EV100 Contactors

600 VDC, 100 Amp Hermetically Sealed DC Contactors



Description

KILOVAC EV100 DC Contactors from TE Connectivity (TE) are low-cost, 600 VDC, 100 A hermetically sealed contactors that feature an economized coil for low power consumption between 9 and 36 VDC. They are capable of operating in harsh, explosive environments without oxidation or contamination of contacts, even in long periods of non-operation.

PRODUCT DIMENSIONS

HERMETICALLY SEALED

- Safe for application in harsh and corrosive environments
- No contact oxidation over periods of non-use

EFFICIENT

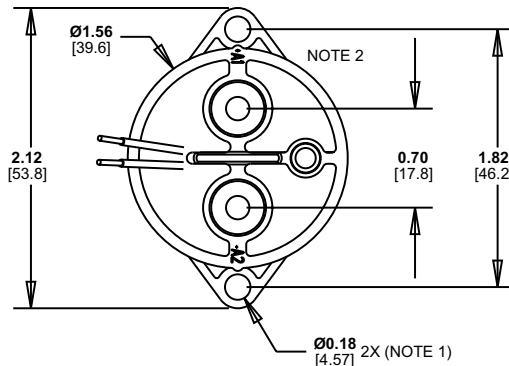
- Integrated coil economizer reduces the power required to hold the contacts closed
- Internal coil suppression included

VERSATILE

- Not position sensitive: mounts in any orientation
- 8 kV isolation between open contacts permits use for high voltage isolation and carry
- Coil economizer allows for operation between 9 and 36 VDC

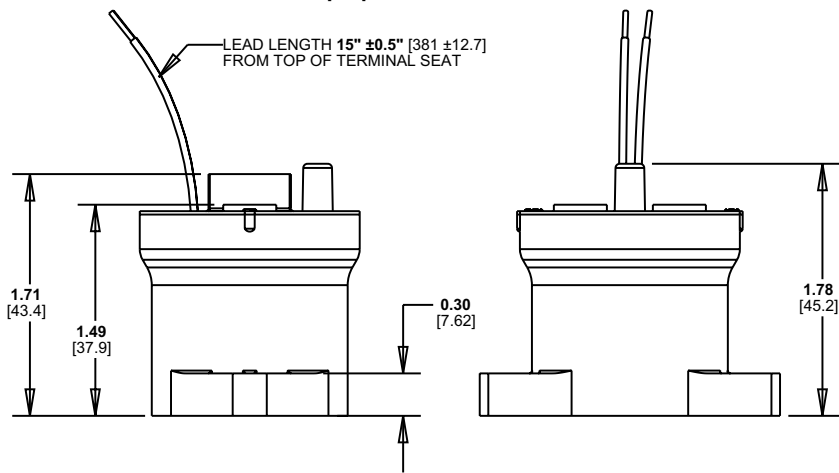
APPLICATIONS

- Power/motor control circuit isolation in industrial machinery
- Power distribution
- Automotive battery switching and backup
- Solar inverter switching



NOTE 1. MOUNTING HARDWARE (NOT SUPPLIED)
2 X M4 BOLT, LOCKWASHER AND WASHER
TORQUE: 20 IN-LBS (2.3 NM) MAX

NOTE 2. LOAD TERMINALS-2 PLCS
HARDWARE NOT SUPPLIED
2 X M5 BOLT, LOCKWASHER AND WASHER
TORQUE: 30-40 IN-LBS (3.4 TO 4.5 NM)
DEPTH: 7 THREADS MAX



TE Components . . . TE Technology . . . TE Know-how . . .

AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | DEUTSCH
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MECHANICAL/ENVIRONMENTAL

- **Contact Arrangement:** Main Contacts
- SPST-NO (Form X)
- **Dimensions:** See drawings
- **Weight:** 4.58 oz. (130 g)
- **Size:** 1.5" x 1.5"
- **Hermetically Sealed**
- **Safe for Harsh/Corrosive Environments**
- **Contact Oxidation:** None over periods of non-use
- **Shock:** 11 ms 1/2 sine (operating)
- **Sine Vibration:** 20 g peak: 55 to 2000 Hz
- **Operating Temperature Range:** -40°C to +85°C
- **Noise Emission (at 100 mm distance):** 70 dB(a)

ELECTRICAL DATA

- **Contact Arrangement:** SPST-NO (Form X, Double Make)
- **Mechanical Life:** 1,000,000 cycles
- **Voltage Rating:**
Main Contacts Switching (max.): 750 VDC
Continuous (Note 1): 100 A
Short Term (3 minutes) (Note 2): 200 A
- **Contact Voltage Drop:** 0.05 max. @ rated current
- **Resistive Load Performance (polarity sensitive):**
50 A make/break @ +400 VDC: 50,000 cycles
50 A make/break @ +600 VDC: 25,000 cycles
100 A make/break @ +400 VDC: 6000 cycles
100 A make/break @ +600 VDC: 5000 cycles
100 A make/break @ -400 VDC: 1000 cycles
100 A make/break @ -600 VDC: 25 cycles
200 A make/break @ +400 VDC: 500 cycles
200 A make/break @ +600 VDC: 200 cycles
1000 A break only @ +400 VDC: 5 cycles
600 A break only @ +600 VDC: 5 cycles
600 A make only: 10 cycles

- **Maximum Short Circuit Current (through closed contacts):** 1250 A
- **Dielectric Withstand Voltage:**
Between Open Contacts: 2200 V_{rms}
Contacts to Coil: 1500 V_{rms}/4000 VDC
- **Insulation Resistance @ 500 VDC, Terminal to Terminal/Terminals to Coil:**
New: 100 MΩ, min.
End of Life: 50 MΩ min.

COIL DATA (Internal Coil Economizer)

- **Coil Voltage Range:** 9 to 32 VDC
- **Maximum Pickup Current (20°C):** 1.5 A
- **Average Holding Current (20°C):**
0.25 A @ 12 VDC/0.15 A @ 24 VDC
- **Pickup Voltage (20°C):** ≥9 VDC
- **Dropout Voltage:** ≤8 VDC
- **Pickup Pulse (max.):** 100 ms
- **Coil Resistance ±5% (20°C):** 8Ω
- **Coil Economizer Frequency:** 19.6 kHz
- **Coil Power Typ. (over temperature range):** 3 to 4 W

OPERATE AND RELEASE TIME

- **Operate Time, Max.:** 30 ms
- **Operate Bounce, Max.:** 5 ms
- **Release Time:** 10 ms

PART NO.

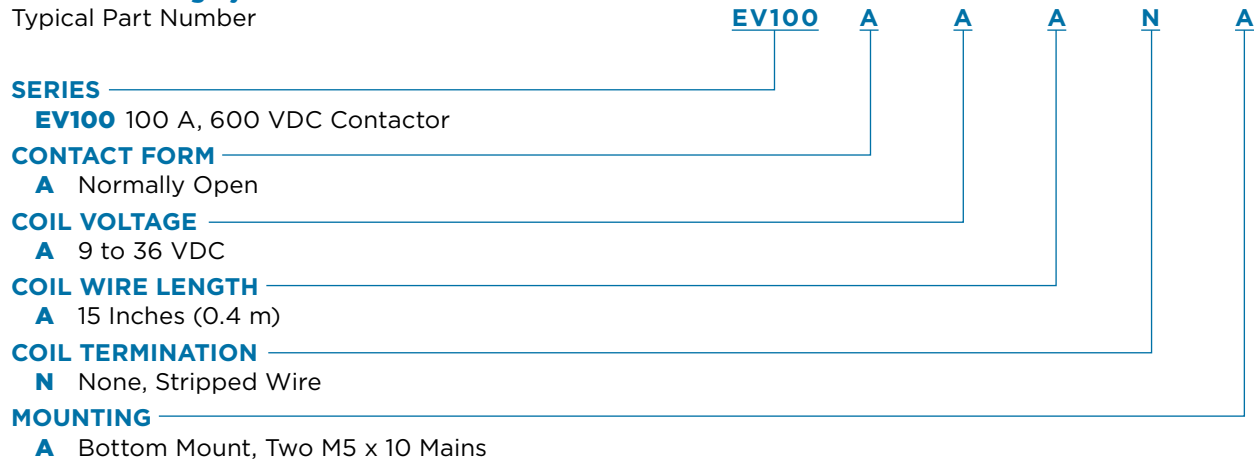
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Note 1: 8.4 mm² conductor. Current rating is affected by conductor size. Keep terminals below 150°C max. continuous.

Note 2: 3 minutes at +40°C ambient, 1 minute at -80°C ambient with 8.4 mm² (8 AWG) conductor.

Part Numbering System

Typical Part Number



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Consult TE for the latest dimensions and design specifications.

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