



Introducing

## EV100 Contactor

600 Vdc, 100 amp hermetically sealed  
DC contactor



**KILOVAC EV100**  
**Series 600 Vdc**  
**Contactor**

**PART NUMBERING**

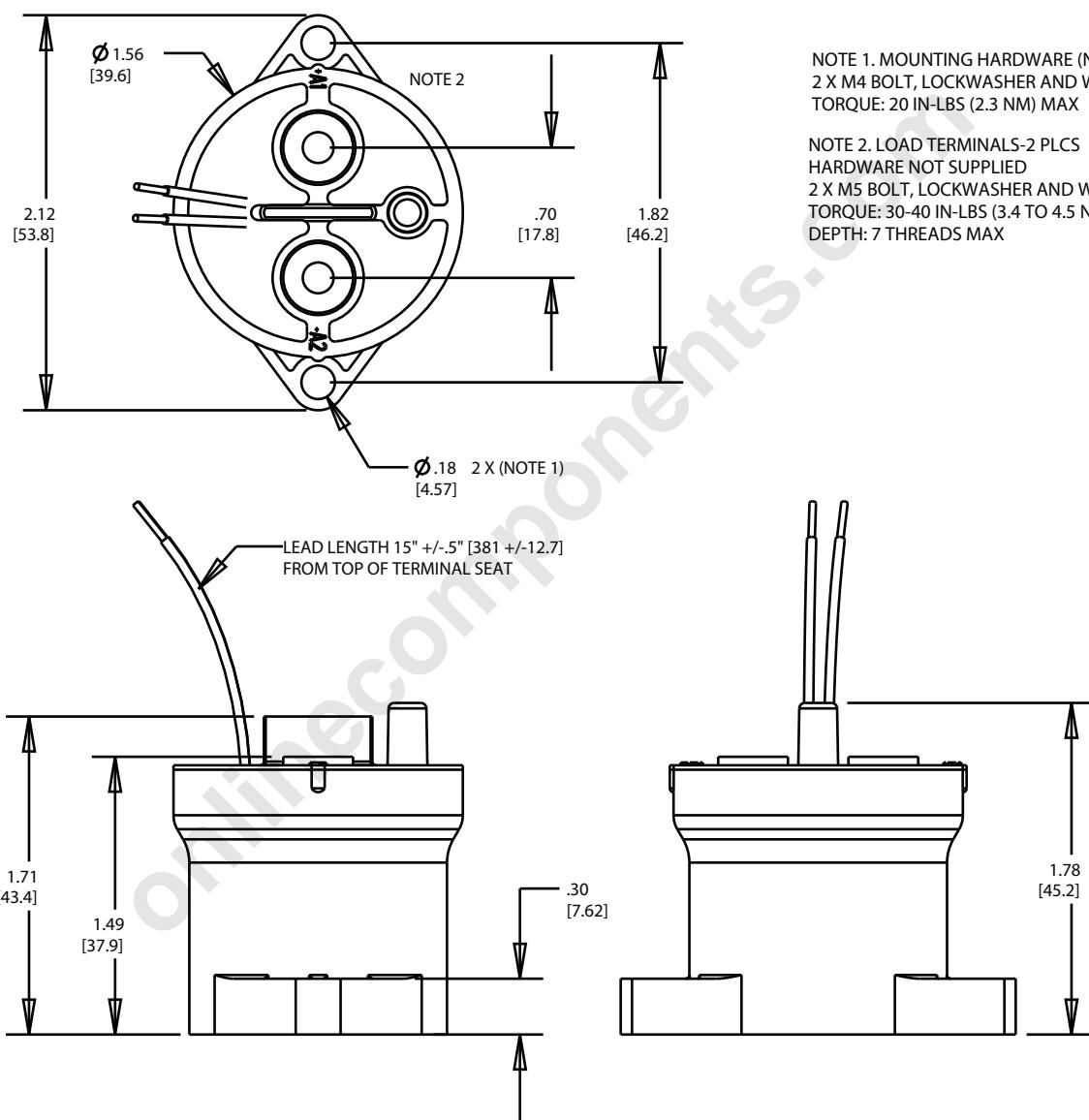
Typical Part Number	EV100	A	A	A	N	A
<b>Series:</b> EV100 - 100A, 600 Vdc Contactor						
<b>Contact Form:</b> A = Normally Open						
<b>Coil Voltage:</b> 9-36 Vdc						
<b>Coil Wire Length:</b> A = 15 inches [.4M]						
<b>Coil Termination:</b> N = None – Stripped Wires						
<b>Mounting:</b> A = Bottom Mount	2X #8, M5X10 Mains					

Specifications are subject to change without notice.





## DIMENSIONS



# KILOVAC EV100 Series 600 Vdc Contactor

## PERFORMANCE DATA

### Physical Data

Contact Arrangement: Main Contacts	SPST-NO (Form X)
Dimensions	See drawings on previous page
Weight	4.58 oz (130g)

### Electrical Data

Voltage Rating: Main Contacts Switching (max)	750VDC
Current Rating: Main Contacts Switching	
Continuous (Note 1)	100A
Short Term -- 3 Minutes (Note 2)	200A
Contact Voltage Drop: Main Contacts	0.05 max @ rated current
Resistive Load Performance (polarity sensitive):	
50A make/break @ +400Vdc	50,000 cycles
50A make/break @ +600Vdc	25,000 cycles
100A make/break @ +400Vdc	6,000 cycles
100A make/break @ +600Vdc	5,000 cycles
100A make/break @ -400Vdc	1,000 cycles
100A make/break @ -600Vdc	25 cycles
200A make/break @ +400Vdc	500 cycles
200A make/break @ +600Vdc	200 cycles
1,000A break only @ +400Vdc	5 cycles
600A break only @ +600Vdc	5 cycles
600A make only	10 cycles
Maximum Short Circuit Current (1/2 cycle, 60 Hz (through closed contacts)	1,250A
Dielectric Withstand Voltage:	
Between Open Contacts	2,2000Vrms
Contacts to Coil	1,500Vrms/4,000Vdc
Insulation Resistance, Terminal to Terminal / Terminals to Coil	
When New	100 megohms, min. @ 500Vdc
At End of Life	50 megohms, min. @ 500Vdc
Mechanical Life	$10^6$

### Coil Data (Internal Coil Economizer)

Coil Voltage Range	9-32 Vdc
Maximum Pickup Current (20 °C)	1-5 A
Average Holding Current (20 °C)	0.25A@12Vdc/0.15A@24Vdc
Pickup Voltage (20C)	$\geq$ 9Vdc
Dropout Voltage	$\leq$ 8Vdc
Pickup Pulse (max.)	100 ms
Coil Resistance +/-5% (20 °C)	8.0 $\Omega$
Coil Economizer Frequency	19.6 kHz
Coil Power Typ. (over temp range)	3-4W

### Operate & Release Time

Operate Time Max.	30ms
Operate Bounce Max.	5ms
Release Time	10ms

### Environmental Data

Shock, 11ms 1/2 sine (operating)	20G peak
Sine Vibration, 20G peak	55-2,000 Hz.
Operating Temperature Range	-40°C to +85°C
Noise Emission (at 100 mm distance)	70dB(a)

### Notes:

<sup>1</sup>. 8.4mm<sup>2</sup> conductor. Current rating is affected by conductor size. Keep terminals below 150 °C max. continuous.

<sup>2</sup>. 3 minutes at +40 °C ambient, 1 minute at -80 °C ambient with 8.4mm<sup>2</sup> (#8 AWG) conductor.

## KILOVAC EV100 Series 600 Vdc Contactor



### KEY FEATURES

Hermetically sealed

Operates in explosive/  
harsh environments without  
oxidation or contamination of contacts, during  
long periods of non-operation

8kV isolation between  
open contacts permits use  
for high voltage isolation  
and carry

Coil economizer allows for  
operation between 9-36  
VDC

Designed and built in  
accordance with AS 9100

### DESCRIPTION

Low cost, 600 Vdc, 100 amp, hermetically sealed DC contactor

Economized coil for low power consumption between 9-36 VDC

Bottom mount, not position sensitive

One million cycle mechanical life

### APPLICATIONS

Power/motor control circuit isolation, circuit protection and safety in industrial machinery

Automotive battery switching and backup

Solar inverter switching

Automotive pre-charge

Test Equipment

Power distribution

### ELECTRICAL

Contact arrangement: SPST-NO (Form X., Double Make)

Voltage rating: 5-600 Vdc at 100 Amps

50K cycles Make/Break: 50 Amps at 400 Vdc

25K cycles Make/Break: 50 Amps at 600 Vdc

Holding current: 0.15 Amps at 24 Vdc

Operate time: 30 ms max.

### PHYSICAL OR OTHER PROPERTIES

Hermetically sealed

Safe for harsh/corrosive environments

No contact oxidation over periods of non-use

### MECHANICAL

Small size: 1.5" x 1.5" approximately

Weight: 130 grams

**FOR MORE INFORMATION**

[te.com/ADM](http://te.com/ADM)

**TE Technical Support Center**

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