



Introducing

EV100 Contactor

*600 Vdc, 100 amp hermetically sealed
DC contactor*



KILOVAC EV100 Series 600 Vdc Contactor

PART NUMBERING

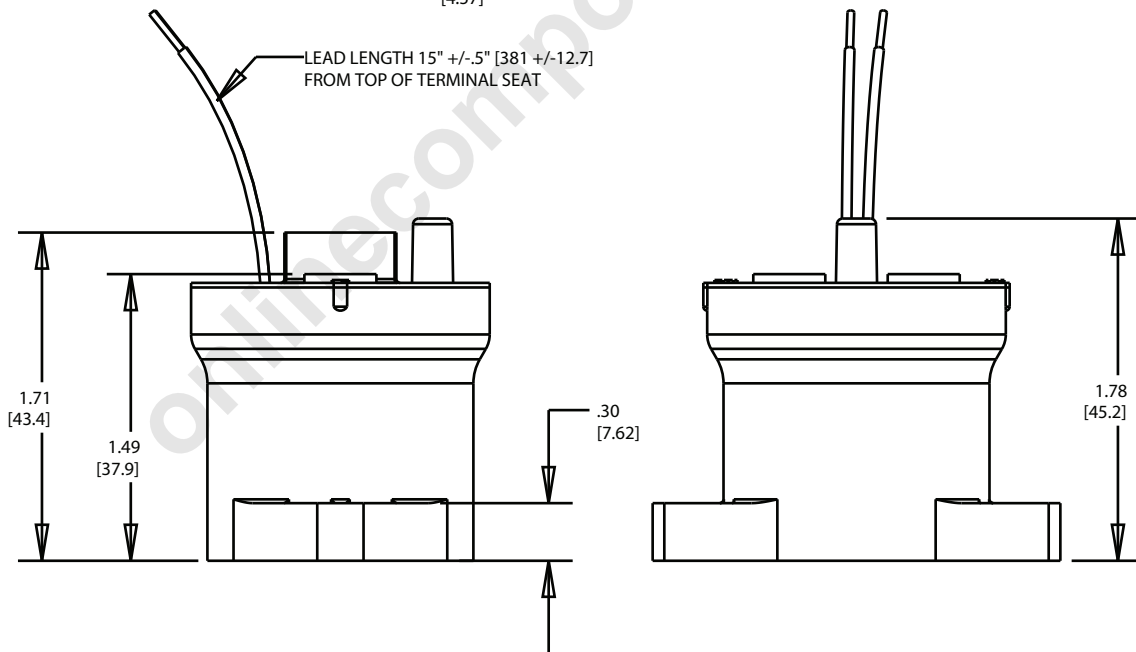
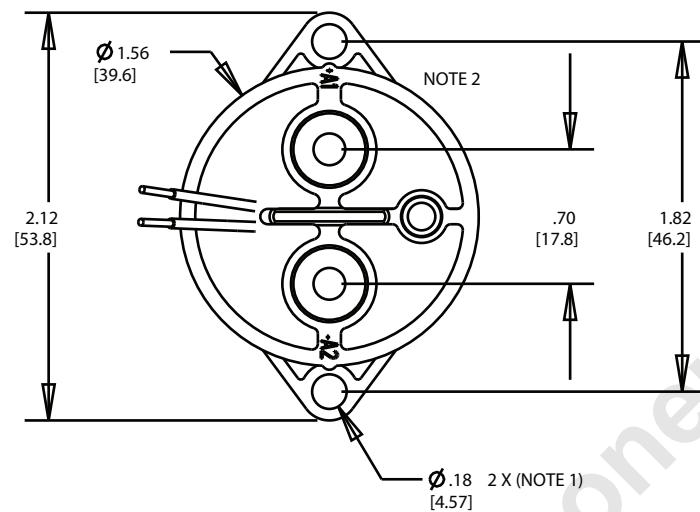
| Typical Part Number | | EV100 | A | A | A | N | A |
|--------------------------------------------------------------|--|-------|---|---|---|---|---|
| Series: EV100 - 100A, 600 Vdc Contactor | | | | | | | |
| Contact Form: A = Normally Open | | | | | | | |
| Coil Voltage: 9-36 Vdc | | | | | | | |
|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

Specifications are subject to change without notice.



KILOVAC EV100 Series 600 Vdc Contactor

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 | 2,200Vrms |
| 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) | ≥9Vdc |
| Dropout Voltage | ≤8Vdc |
| Pickup Pulse (max.) | 100 ms |
| Coil Resistance +/-5% (20 ° C) | 8.0 Ω |
| 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:

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

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

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KEY FEATURES

Hermetically sealed

Operates in explosive/
harsh environments with-
out oxidation or contami-
nation 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

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