

KILOVAC CAP100 Series 900 Vdc Contactor

Product Facts

- Commercial aerospace product
- Hermetically sealed — intrinsically safe. 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, optional auxiliary contacts
- 12, 24 and 48 Vdc coils
- Solid copper contacts
- Designed and built in accordance to AIAG QS9000
- RoHS versions available



Description

Lowest cost, 900 Vdc 100 amp, hermetically sealed DC contactor in the industry with coil suppression and 1 Form C Aux. contact

Compact package available in side- or bottom-mount reinforced configurations, not position sensitive

Applications

Power/motor control circuit isolation, circuit protection and power distribution

Commercial Aerospace

Mechanical

Compact epoxy-sealed resin enclosure occupies only about 4 in³ (65.5 cm³)

Robust integral mounting plate on either bottom or side of enclosure accepts two M4 screws

Inert gas filled contact chamber

Flying leads for coil connections

Load terminals threaded for M5 bolts (not included)

Performance Data

Physical Data

Contact Arrangement, Main

Contacts — SPST-NO-DM (1 Form X)

Dimensions — See drawings on next page

Weight — 6.7 oz (190g)

Contact Data

Contact Arrangement, Main

Contacts — SPST-NO-DM (1 Form X)

Voltage Rating, Main Contacts

Switching (Max) — 900VDC

Current Rating, Main Contacts

Switching —

Continuous 1 — 100A

Short Term, 3 Minutes² — 200A

Hot Switching Performance

(Polarity Sensitive) —

50A make/break @ +400Vdc — 50,000 cycles

100A make/break @ +400Vdc — 6,000 cycles

100A make/break @ -400Vdc — 1,000 cycles

200A make/break @ +400Vdc — 500 cycles

1,000A break only @ +400Vdc — 10 cycles

600A make only — 25 cycles

Maximum Short Circuit Current

(1/2 cycle, 60 Hz) — 1,250A (through closed contacts)

Dielectric Withstand Voltage³ —

Between Open Contacts —

5,600Vrms/8,000Vdc

Contacts to Coil —

2,000Vrms/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 — 1 million cycles

Operate & Release Time

Operate Time Max. — 25ms

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 — -55°C to +85°C

Noise Emission (at 100 mm distance) — 70dB(a)

Notes

¹ 8.4 mm² conductor. Current rating depends upon conductor size. Keep terminals below 175°C max continuous.

² 3 minutes at +40°C ambient with 8.4 mm² (#8 AWG) conductor.

³ 2,000Vrms minimum under all conditions, until end of life.

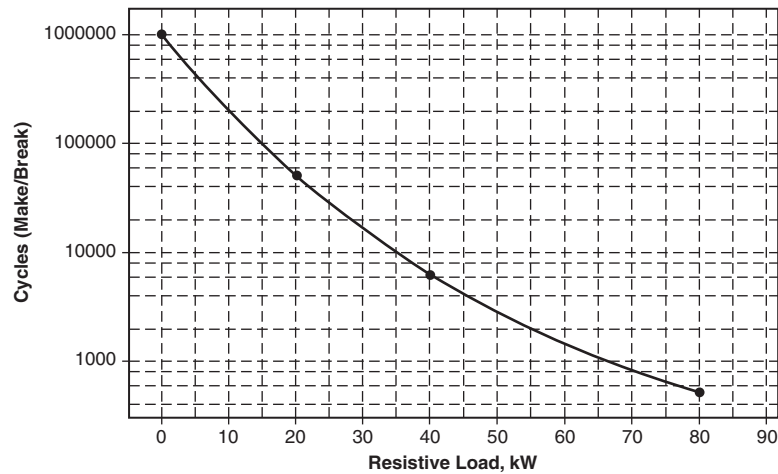
For factory-direct application assistance, dial 800-253-4560, ext. 2055, or 805-220-2055.

KILOVAC CAP100 Series (Continued)

Coil Operating Voltage (Valid Over Temperature Range)			
Nominal Voltage	12Vdc	24Vdc	48Vdc
Pick Up Voltage (20°C)	8Vdc	16Vdc	33Vdc
Drop Out Voltage (20°C)	1.2Vdc	2.4Vdc	4.8Vdc
Coil Current (Nominal at 20°C, 12vdc)	461mA	250mA	122mA
Coil Power ¹			
Nominal @ Vnom, +20°C	5.5W	6.0W	6.0W
Pickup (Close) Voltage Max. @85°C	9.6Vdc	19.2Vdc	38.4Vdc
Coil Resistance			
Nominal @ +20°C ± 5% (ohms)	26	96	392

¹ Do not exceed 8.0W coil power for extended periods

Life Cycles vs Resistive Load up to 900Vdc



Ordering Information

Typical Part Number ► **CAP100 A 4 A N G**

Series: _____
 CAP100 = 100A Contactor

Contact Arrangement: _____
 A = 1 Form X (SPST-NO-DM)
 K = NO with 1 SPDT Aux.

Coil Voltage: _____
 4 = 12VDC
 5 = 24VDC
 6 = 48VDC

Coil Wire Length: _____
 A = 15 inches [.4M]

Coil Termination: _____
 N = None – Stripped Wires
 (Consult factory for connector options)

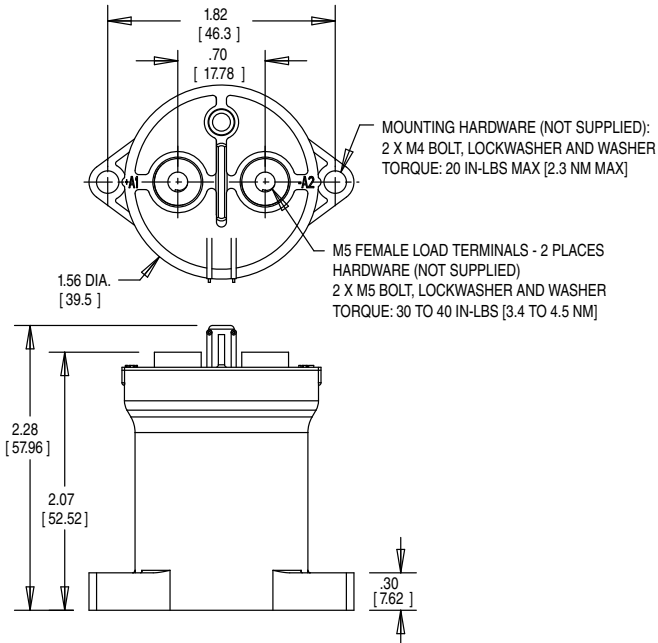
Mounting and Power Terminals: _____
 G = Bottom Mount (2 x #8); M5 x 10
 H = Side Mount (2 x #8); M5 x 10

7
 KILOVAC High Voltage
 DC Contactors

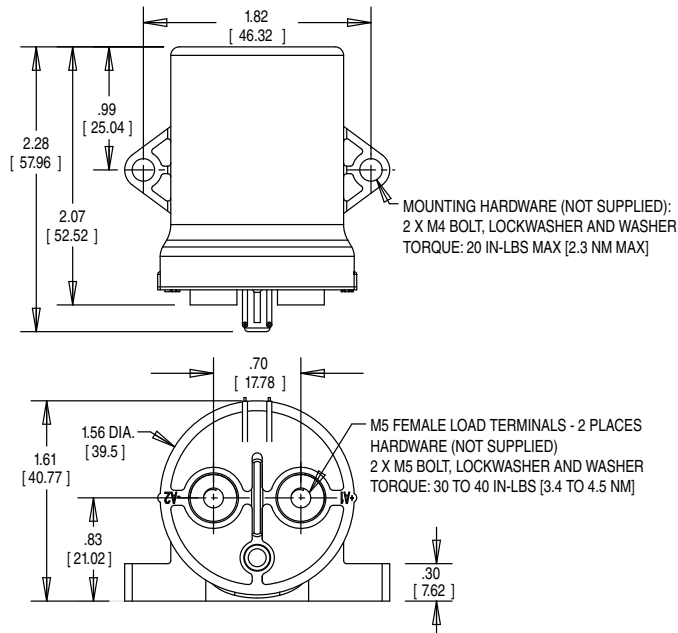
For factory-direct application assistance,
 dial 800-253-4560, ext. 2055, or
 805-220-2055.

KILOVAC CAP100 Series (Continued)

Bottom Mount



Side Mount



For factory-direct application assistance,
 dial 800-253-4560, ext. 2055, or
 805-220-2055.