

KILOVAC CAP202 Series Aerospace Commercial Contactor with 2 Form X (DPST-NO), Contacts Rated up to 300 Amps, 12-600 Vdc

Product Facts

- Hermetically sealed
- Up to 4X SPDT auxiliary switch outputs: 30 Vdc/2A max switching or 6V/5mA min. signal
- Integrated coil economizer with coil suppression
- EMC compliant - no radiated coil emission
- Bidirectional switching - main contacts not polarity sensitive
- Mount in any orientation - not position sensitive



Description

2-pole single throw hermetically sealed DC contactor; 12-900 Vdc/350A per pole

Not position sensitive

Bi-directional switching

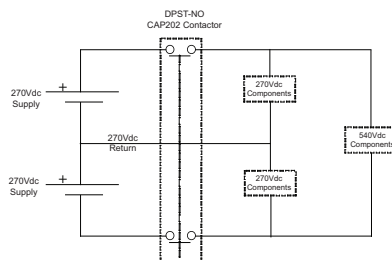
Applications

High Voltage DC Converter Systems (ref schematic below)

Test Equipment

Power Distribution

Power Motion Control



Electrical

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

Contact arrangement: DPST-No (2 form X)

Voltage rating: 12-900 Vdc (main contacts); 30 Vdc (auxiliary)

Mechanical life: 100,000 cycles

Physical or Other Properties

Weight: 0.79 Kg

Hermetically sealed

Safe for harsh/corrosive environments

No contacts oxidation over periods on non-use

Number of SPDT Auxiliary Contacts per Contactor Type:

CAP202AS — None

CAP202MS — Two

CAP202FS — Four

Performance Data

Physical Data

Contact Arrangement — DPST-NO (2 Form X)

Auxiliary Switches — SPDT (form C)

Dimensions — See drawings on next page

Weight — 0.79 Kg (1.74 lb.)

Electrical Data

Voltage Rating —

Main Contacts — 12-900Vdc

Auxiliary Contacts — 30Vdc

Current Rating —

Main Contacts¹ — 350A/pole

Auxiliary Contacts — 3A

Contact Resistance —

Main Contacts — (2)
100 mΩ max @ 1 amp
0.3 mΩ max. @ 200A after 3 mins.

Auxiliary Contacts — 200 mΩ max

Hot Switching Performance @ ± 400 Vdc (3) —
100A make/break — 10,000 cycles
250A make/break — 2,500 cycles
700A break only — 10 cycles

Hot Switching Performance @ ± 270 Vdc (4) —
100A make/break — 40,000 cycles
250A make/break — 7,500 cycles
2000A break only @ ±370Vdc (5) — 2 cycles

Maximum Make Current — 700A

Dielectric Withstand Voltage over Life — Terminal to Terminal/Terminals to Coil — 1mA max @ 2,200Vrms

Insulation Resistance over Life — Terminal to Terminal/Terminals to Coil — 50mΩ min @ 500Vdc

Mechanical Life — 100,000 cycles

Environmental Data

Shock, 11ms 1/2 sine (operating) — 20G peak

Sine Vibration, 10G peak — 55-2,000 Hz.

Random Vibration, 14 Grms —
15 100 300 900 2000 Hz
.01 .01 .2 .2 .01 G2/Hz

Operating Temperature Range — -55°C to +85°C

Notes:
¹ Using 4/0 conductor. Current rating is affected by attached conductor size and design. Keep terminals below 150°C max. continuous, 175°C for 2 hours max. and 200°C for 1 minute max. For mounting large conductors, request terminal adapter PN 3-1618396-7.

² Operational contact resistance is measured by millivolt drop across contacts a > 100A current. Initial contact resistance may be higher than 0.3mΩ, but will drop below within 30 mins. max.

³ Voltage applied to each contact set separately.

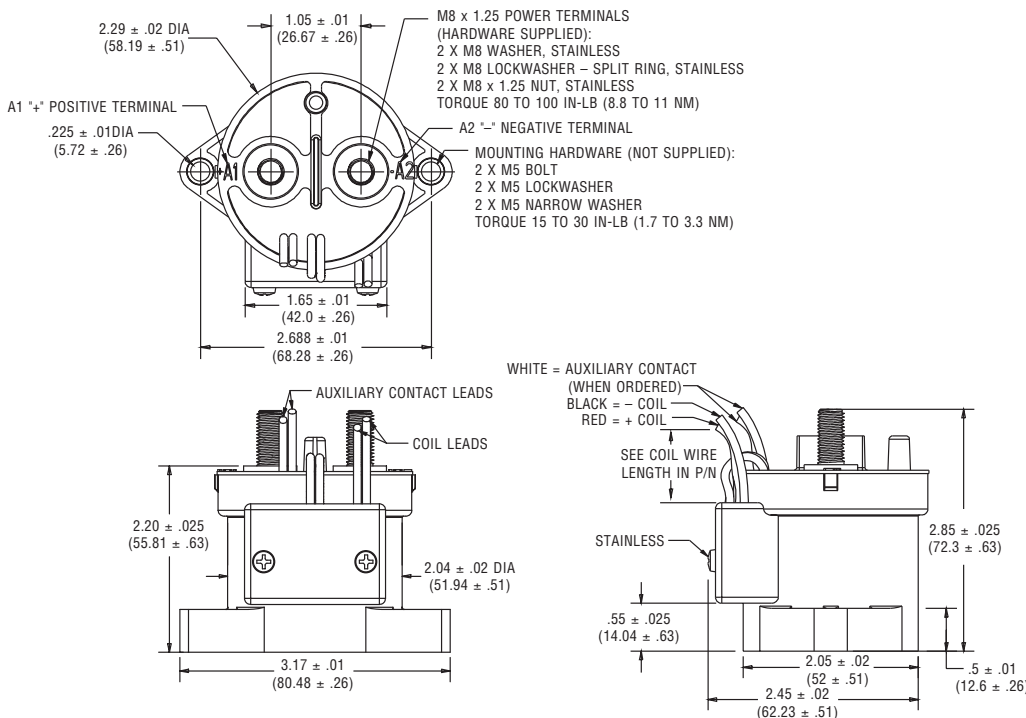
⁴ Voltage applied across both contact sets in series.

⁵ May not pass 2,200 Vrms dielectric testing after second interrupt cycle.

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

KILOVAC CAP202 Series 12-900Vdc Contactors

Outline Dimensions*



Coil Data (-40 to +85°C temp range unless otherwise noted)	
Voltage/Nominal Max.	28-32VDC
Pickup Voltage Max.	16VDC
Inrush Current @ 28 Vdc nominal/@32V maximum	3.4/6.0A
Inrush Time (nominal/maximum)	75/150mS
Hold Current @28V nominal / @32V maximum	0.27/0.48A
Drop Out Voltage	3 to 8Vdc
Internal Coil Suppression (max.)	60Vdc
Main Contacts: Operate Time, nominal/maximum	13/20mS
Main Contacts: Operate Bounce, nominal/maximum	3/10mS
Main Contacts: Release Time, nominal/maximum	25mS
Main Contacts: Release Time, maximum including Maximum arc time	7/12mS

Ordering Information

Typical Part Number ▶

CAP202 M S B F D

Series: CAP202 = 2 form X, DPST-N0-DM Contactor

Auxiliary Contact Outputs (SPDT form C):
A = None
M = Two
F = Four

Coil Voltage: S = 28V (with built-in electronically switched dual coil economizer)

Coil and Aux. Wire Length:
A = 15.3 inches
B = 6 inches
X = Customer Special

Coil and Aux. Connector:
N = None
F = D Plug on flying leads (may affect wire length)

Mounting & Power Terminals: D = 2X M5 Bottom Mount with 4X, M6 x 1 Female thread terminals

Specifications are subject to change without notice.

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