

## Product Facts

- Designed to be the smallest, lightest weight, lowest cost sealed contactor in the industry with its current rating.
- Built-in coil economizer – only 1.7W hold power @ 12VDC and it limits back EMF to 0V. (models requiring external economizer also available).
- Optional auxiliary contact for easy monitoring of power contact position.
- Hermetically sealed – intrinsically safe, operates in explosive/harsh environments with no oxidation or contamination of coils or contacts, including long periods of non-operation.
- Versatile coil and power connections.
- UL Recognized for the U.S. and Canada (File E208033).
- CE marked for EC applications.
- AIAG QS9000 designed, built and approved



For factory-direct application assistance, dial 800-253-4560, ext. 2053, or 805-220-2053.

## Performance Data

| Parameter                                            | Units   | Value for CAP200 Series                                                                              |
|------------------------------------------------------|---------|------------------------------------------------------------------------------------------------------|
| Contact Arrangement, power contacts                  |         | 1 Form A (SPST-NO)                                                                                   |
| Rated Operating Voltage                              | VDC     | 12 - 900                                                                                             |
| Continuous (Carry) Current, Typical                  | A       | 500 @ 85°C, 400 mcm conductors<br><i>Consult Factory for required conductors for higher currents</i> |
| Make/Break Current at Various Voltages <sup>1/</sup> | A       | See next page                                                                                        |
| Break Current at 320VDC <sup>1/</sup>                | A       | 2,000, 1 cycle <sup>2/</sup>                                                                         |
| Contact Resistance, Typ. (@200A)                     | mohms   | 0.2                                                                                                  |
| Load Life                                            | Cycles  | See next page                                                                                        |
| Mechanical Life                                      | Cycles  | 1 million                                                                                            |
| Contact Arrangement, auxiliary contacts              |         | 1 Form A (SPST-NO)                                                                                   |
| Aux. Contact Current, Max.                           | A       | 2A @ 30VDC / 3A @ 125VAC                                                                             |
| Aux. Contact Current, Min.                           | mA      | 100mA @ 8V                                                                                           |
| Aux. Contact Resistance, Max.                        | ohms    | 0.417 @ 30VDC / .150 @ 125VAC                                                                        |
| Dielectric Withstanding Voltage                      | Vrms    | 2,200 @ sea level                                                                                    |
| Insulation Resistance @ 500VDC                       | megohms | 100 <sup>2/</sup>                                                                                    |
| Shock, 11ms 1/2 sine, peak, operating                | G       | 20                                                                                                   |
| Vibration, sine, 80-2000Hz., peak                    | G       | 20                                                                                                   |
| Operating Temperature                                | °C      | -40 to +85                                                                                           |
| Weight, Nominal                                      | lb.(kg) | .95 (.43)                                                                                            |

<sup>1/</sup> Main power contacts

<sup>2/</sup> 50 at end of life

<sup>3/</sup> Does not meet dielectric & IR after test, 1700 amp for unit with Aux. Contacts

<sup>4/</sup> Use with AMP LOUVERTAC 5-192013-9. Consult factory for threaded mount socket.

## Coil Operating Voltage (valid over temperature range)

|                               | 9-36VDC              | 32-95VDC  | 48-95VDC  |
|-------------------------------|----------------------|-----------|-----------|
| Voltage (will operate)        | 9-36VDC              | 32-95VDC  | 48-95VDC  |
| Voltage (Max.)                | 36VDC                | 95VDC     | 95VDC     |
| Pickup (close) Voltage Max.   | 9VDC                 | 32VDC     | 48VDC     |
| Hold Voltage (Min.)           | 7.5VDC               | 22VDC     | 34VDC     |
| Dropout (open) Voltage (Min.) | 6VDC                 | 18VDC     | 27VDC     |
| Inrush Current (Max.)         | 3.8A                 | 1.3A      | 0.7A      |
| Holding Current (Avg.)        | 0.13A@12V, 0.07A@24V | 0.03A@48V | 0.02A@72V |
| Inrush Time (Max.)            | 130ms                | 130ms     | 130ms     |

## Part Numbering System

| Typical Part Number                                                                                                                                                                                                              | CAP200 | A | A | A | N | A |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---|---|---|---|---|
| Series:<br>CAP200 = 500 Amp, 12-900VDC Contactor                                                                                                                                                                                 |        |   |   |   |   |   |
| Contact Form:<br>A = Normally Open H = Normally Open with Aux. Contacts                                                                                                                                                          |        |   |   |   |   |   |
| Coil Voltage:<br>A = 9-36VDC (1 = requires external coil economizer)<br>D = 32-95VDC (2 = requires external coil economizer)<br>J = 48-95VDC (3 = requires external coil economizer)                                             |        |   |   |   |   |   |
| Coil Wire Length:<br>A = 15.3 in (390 mm) B = 6.0 in (152 mm)                                                                                                                                                                    |        |   |   |   |   |   |
| Coil Terminal Connector:<br>N = None<br>E = 9-pin subminiature "D" plug mounted on contactor housing<br>F = 9-pin subminiature "D" plug mounted on 15.3 in (390 mm) flying leads.<br>X = Special configuration (consult factory) |        |   |   |   |   |   |
| Mounting & Power Terminals:<br>A = Bottom Mount & Male 10mm x 8 Terminals C = Plug-in Terminals <sup>4/</sup>                                                                                                                    |        |   |   |   |   |   |

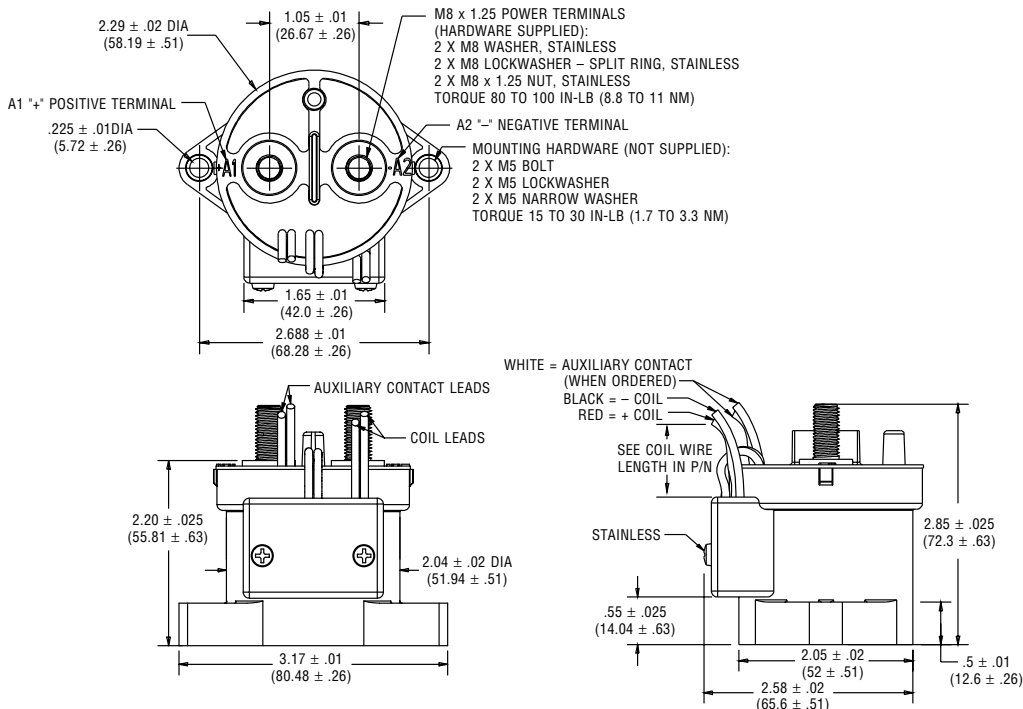
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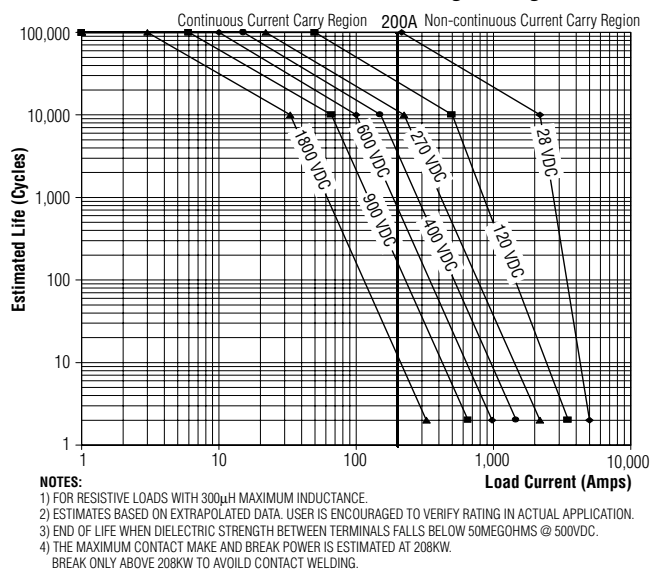
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## CAP200 Series (Continued)

### Outline Dimensions



### Estimated Make & Break Power Switching Ratings



### Electrical Load Life Ratings for Typical Applications

| Make/Break Life Capacitive & Resistive Loads at 320VDC (1) (2) |        |        |
|----------------------------------------------------------------|--------|--------|
| @90% capacitive pre-charge (make only) see chart below         | Cycles | 50,000 |
| @80% capacitive pre-charge (make only) see chart below         | Cycles | 50     |
| @200A make/break (2 consecutive, reverse polarity) (1)         | Cycles | 12     |
| 2,000A (break only) (1)                                        | Cycles | 1*     |

(1) Resistive load includes inductance L = 25μH. Load @ 2500A tested @ 200μH.  
(2) Life based on projected Weibull Life with 95% reliability.  
\* Does not meet dielectric and IR after test.

