

**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 <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>3/</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)**

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:**

CAP200 = 500 Amp, 12-900VDC Contactor

**Contact Form:**

A = Normally Open H = Normally Open with Aux. Contacts

**Coil Voltage:**

A = 9-36VDC (1 = requires external coil economizer)

D = 32-95VDC (2 = requires external coil economizer)

J = 48-95VDC (3 = requires external coil economizer)

**Coil Wire Length:**

A = 15.3 in (390 mm) B = 6.0 in (152 mm)

**Coil Terminal Connector:**

N = None

E = 9-pin subminiature "D" plug mounted on contactor housing

F = 9-pin subminiature "D" plug mounted on 15.3 in (390 mm) flying leads.

X = Special configuration (consult factory)

**Mounting & Power Terminals:**

A = Bottom Mount & Male 10mm x 8 Terminals

C = Plug-in Terminals<sup>4/</sup>

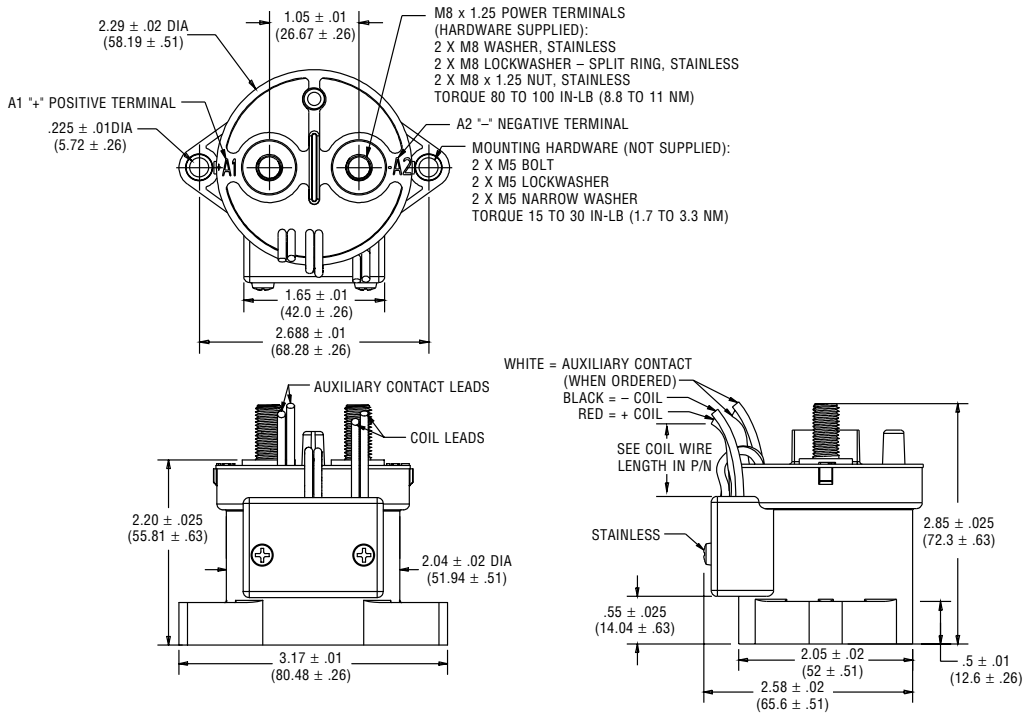
© 2004 by Tyco Electronics Corporation. All Rights Reserved.

KILOVAC, AMP, LOUVERTAC and TYCO are trademarks.

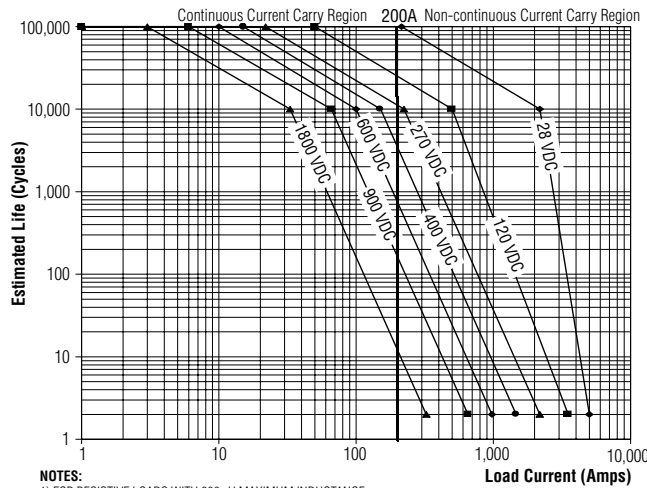
Other products and company names mentioned herein may be trademarks of their respective owners.

**CAP200 Series** (Continued)

**Outline Dimensions**



**Estimated Make & Break Power Switching Ratings**



**NOTES:**  
 1) FOR RESISTIVE LOADS WITH 300μH MAXIMUM INDUCTANCE.  
 2) ESTIMATES BASED ON EXTRAPOLATED DATA. USER IS ENCOURAGED TO VERIFY RATING IN ACTUAL APPLICATION.  
 3) END OF LIFE WHEN DIELECTRIC STRENGTH BETWEEN TERMINALS FALLS BELOW 50MEG OHMS @ 500VDC.  
 4) THE MAXIMUM CONTACT MAKE AND BREAK POWER IS ESTIMATED AT 208KW.  
 BREAK ONLY ABOVE 208KW TO AVOID CONTACT WELDING.

**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.

