

## **EV202 SERIES**

DPST-NO CONTACTOR (2 form X)

With option of 2 SPDT (form C)  
Auxiliary Switch Outputs.

- **2 Pole Single-Throw Contactor – 400Vdc/ 350A per Pole**
- **12 or 24 VDC Coil**
- **Optional 2-SPDT auxiliary switch outputs:**
  - **30Vdc/ 2A max switching, or**
  - **6V/ 5mA min signal**
- **Hermetically Sealed**
- **Integrated Coil Economizer with Coil Suppression**
- **EMC Compliant – No radiated coil emission**
- **-55C to + 85C Operating Range**
- **Bidirectional Switching – Main contacts not polarity sensitive**
- **Mount in any orientation – not position sensitive**
- **RoHS Compliant**



**EV202MSAND Shown (2 Aux Switches)**



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Carpinteria, CA US 93013  
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TITLE

**EV202 CONTACTOR SERIES**

**SD-**

**EV202**

**CD CUSTOMER DRAWING**

CAGE CODE  
18741

SCALE  
NONE

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## General Specifications

### Physical Data

### Units

Contact Arrangement: Power Contacts	-	DPST-NO (2 form X)				
Auxiliary Switches		SPDT (form C)				
Number of Switches per Contactor Type: EV202AS EV202MS		None Two				
Dimensions	-	See drawing				
Weight, Nominal (not including hardware)	Kg	0.77				

### Environmental Data

Shock, 11ms ½ sine (operating)	G <sub>peak</sub>	20				
Sine Vibration, 10 G <sub>peak</sub>	Hz	10-2000				
Random Vibration, 14 Grms	Hz	15	100	300	900	2000
	G <sup>2</sup> /Hz	.01	.01	.2	.2	.01
Operating Temperature Range	°C	-55 to +85				

### Electrical Data

Voltage Rating: Main Contacts (max)	Vdc	600				
Auxiliary contacts	Vdc	30				
Current Rating: Continuous: Main Contacts (1)	A/Pole	350				
Auxiliary contacts	A	3				
Contact Resistance: Main Contacts (2)	mΩ	100 max @ 1 amp 0.3 max @ 200A after 3 minutes				
Auxiliary Contacts	mΩ	200 max				
Hot Switching performance @ ± 400Vdc (3) 100A make/ break 250A make/ break 700A break only	cycles	10,000 2,500 10				
Hot Switching performance @ ± 270Vdc (4) 100A make/ break 250A make/ break 2000A break only @ ± 370Vdc (5)	cycles	40,000 7,500 2				
Maximum Closing Into (Make) Current	A	700				
Mechanical Life	cycles	100,000				
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				

- (1) Using 4/0 conductor. Current rating is affected by attached conductor size and design. Keep terminals below 150C max continuous, 175C for 2 hours max, and 200C 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 minutes maximum.
- (3) Voltage applied to each contact set separately.
- (4) Voltage applied across both contact sets in series
- (5) Dielectric Withstand Voltage may be degraded following 2000A interrupts at 370Vdc.



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**Coil Data** (over -40 to +85C temperature range  
unless otherwise specified)

<b>Coil Voltage, nominal/ maximum</b>	Vdc	<b>12/16</b>	<b>24/32</b>
Pick Up, maximum (applied as step voltage only)	Vdc	8	16
Drop Out	Vdc	2.5 - 4	3 - 8
Inrush Current @ V-nominal, max	A	5	4.5
Inrush Time, nominal/ maximum	mS	75/ 150	75/ 150
Hold Current @V-nominal, max.	A	0.6	0.2
Internal Coil Suppression (max)	Vdc	40	60
Main Contacts:			
Operate Time, nominal/ maximum	mS	13/ 20	13/ 20
Operate Bounce, nominal/ maximum	mS	3/ 10	3/ 10
Release Time, nominal/ maximum	mS	7/ 12	7/ 12
Release time, maximum including maximum arc time	mS	25	25

**Wire Color Code**

<b>Function</b>	<b>Color</b>
Coil +	Red
Coil Return	Black
Aux A1 COM	Brown
NO	Yellow
NC	Purple
Aux B1 COM	Orange
NO	Green
NC	White

Note: EV202ASxxx type has 2 coil wires, with no auxiliary switches  
EV202MSxxx type has 8 wires, with 2 auxiliary switches: A1 and B1



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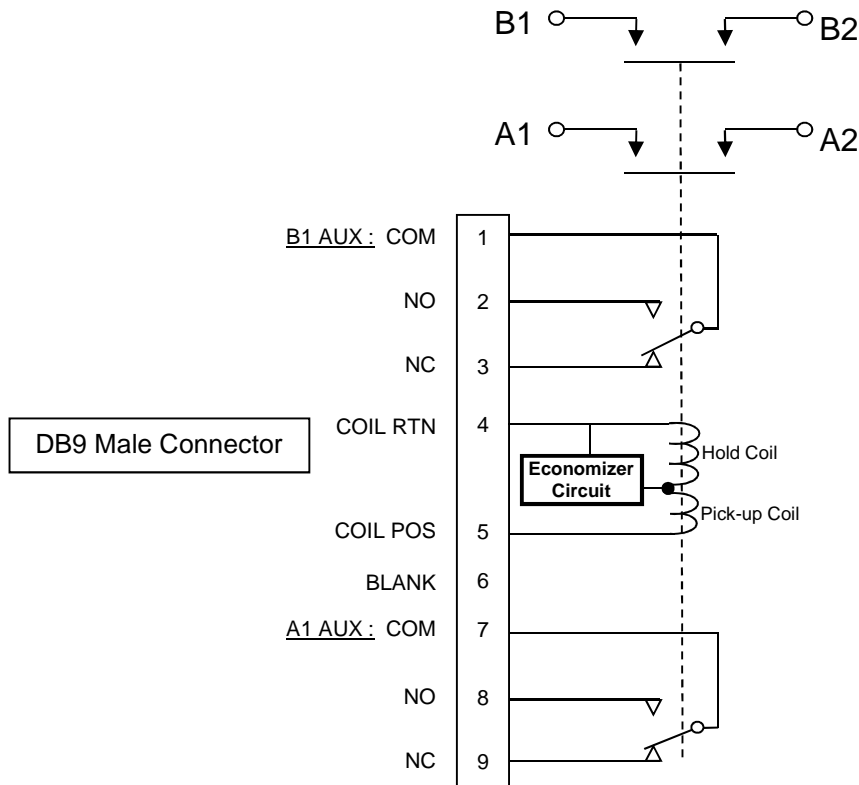
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## Schematic

EV202MSBFD shown for example.

Other versions may have different connectors and/ or different numbers of auxiliary switches



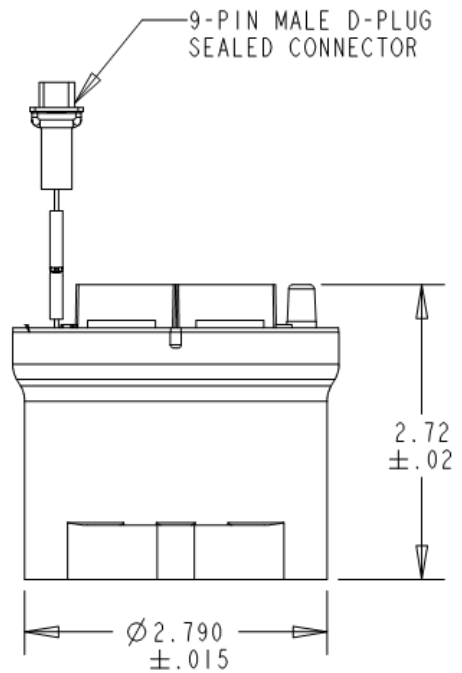
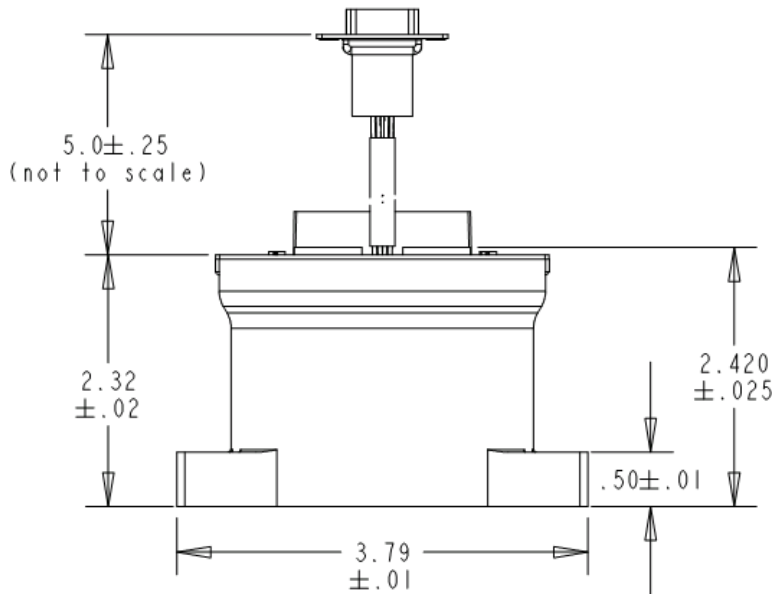
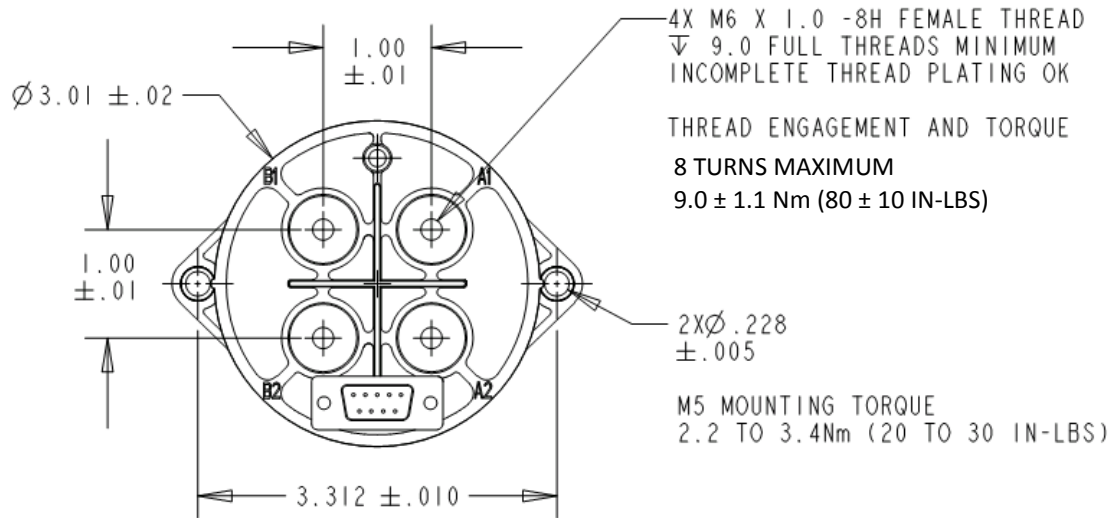
## Part Numbering Reference

	EV202	M	S	B	F	D
<b>Series:</b> EV202 = 2 form X, DPST-NO-DM Contactor						
<b>Auxiliary Contact Outputs (SPDT form C):</b> A = None, M = Two						
<b>Coil Voltage:</b> S = 24V; V = 12V (with built in electronically switched dual coil economizer)						
<b>Coil and Aux Wire Length (inches):</b> A = 15.3, B = 6, X = Customer specified configuration						
<b>Coil and Aux Connector:</b> N = none, F = "D" Plug on flying leads (may affect wire length)						
<b>Mounting and Power Terminals</b> D = 2X M5 Bottom Mount with 4X, M6 X 1 Female thread terminals						

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### Part Drawing

EV202MSBFD shown for example.  
Other versions may have different connectors or flying leads.

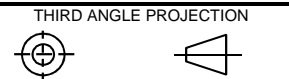


**Dimensions in Inches**  
Tolerances (except as noted)  
.xx = ± .03  
.xxx = ± .010  
∠ x° = ± 5°



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**SD- EV202**



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Rev.  
**B**

### Revisions

REV.	DESCRIPTION	DCO#	DATE	APP.
1	Preliminary Release	16255	01/05/15	D. Lewis
A	Release to Production	16334	11/12/15	D. Lewis
B	Add RoHS compliance, edit note 5.	16370	9/12/16	J.Reyes



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