

## EV210 Series Contactor 500+ Amps, 1500Vdc

EV210 series high-voltage DC contactor is designed for control in new energy applications. The EV210 product line is an innovative and reliable solution for EV charging stations, solar inverters, battery energy storage systems, automated-guided vehicles (AGV) e-Forklifts and industrial applications. EV210 is hermetically sealed with high performance dielectric epoxy technology and enable high switching capability up to 1500VDC. Additionally, the integrated PWM module minimize its size, making it a space-saving solution.

### Features

- Intrinsically safe, operates in explosive/harsh environments with no oxidation or contamination of coil or contacts, even during long periods of non-operation.
- Versatile coil/power connections. Designed to be the smallest, lightest weight, lowest cost sealed contactor in the industry with its current rating (500+A carry, 1500 VDC).
- Built-in coil economizer — only 1.7W hold power @ 12VDC and it limits back EMF to 0V.
- Both auxiliary contacts normally open and normally closed versions for easy monitoring of power contact position.
- Hermetically sealed (>IP67).
- UL Recognized for the U.S. and Canada (File E208033).
- RoHS compliant.
- Available in male and female power terminal configuration



550 Linden Ave, Carpinteria, CA 93013  
Phone: (805) 220-2020 Fax: (805) 220-2075  
<http://www.te.com>

TITLE

**EV210 Series Contactor  
500+ Amps, 1500Vdc**

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DWG NO.

**DS-EV210 Series**

CAGE CODE

SUL03

SCALE

none

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## General specifications

REV.  
**B1**

Physical Data	Units	
Contact Arrangement: Main Contacts		1 Form X (SPST-NO-DM)
Auxiliary contacts		1 Form A (SPST-NO) 1 Form B (SPST-NC)
Dimensions	In[mm]	See Sheet 4
Sealing		Hermetic
Weight, Nominal	lb.(kg)	.95 (.43)

Environmental Data		
Shock, 11ms 1/2 sine, peak, operating	G peak	20
Sine Vibration, 20 G peak	Hz	80-2000
Operating Temperature Range	°C	-40 to +85

Electrical Data		
Rated Operating Voltage	Vdc	12-1500
Continuous (Carry) Current, Typ.	A	500A @ 85°C, 400 mcm conductors
Contact Resistance, Typ. (@200A)	mΩ	0.2
Aux. Contact Current, Max	A	2A@30VDC/ 3A@125VAC
Aux. Contact Current, Min	A	10mA@5VDC
Aux. Contact Resistance, Max	A	0.417ohms @ 30VDC / 0.150ohms @ 125VAC
Mechanical Life	Cycles	1 million
Dielectric Withstand Voltage	Vdc	5375
Insulation resistance @ 500VDC	Megohms	100

Coil Data			
Coil Operating Voltage (Valid over temperature range)			
Coil Voltage, Nominal/max	Vdc	9-36	24-48
Pickup voltage	Vdc	>9	>20
Dropout Voltage	Vdc	≤6	≤15
Inrush Current (Max.) @25°C	A	3.8	
Holding Current (Avg.) @25°C	A	0.13A @12V 0.07A @24V	0.25A @24V 0.25A@48V
Inrush Time (Max.)	ms	130ms	
Main Contacts: Operate Time @25°C			
Operate Time (max)	ms	20	
Operate Bounce (max)	ms	7	
Release time	ms	6	



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### DS-EV210 Series

THIRD ANGLE PROJECTION



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# Part Numbering System for ordering

REV.  
**B1**

**Typical Part Number**

**EV210** | **H** | **A** | **A** | **N** | **A**

Series: EV210 = 500 Amp

Contact Form: A = Normally Open\*  
 H = Normally Open with NO Aux. Contacts  
 G = Normally Open with NC Aux. Contacts

Coil Voltage:  
 A = 9-36VDC  
 X = 24-48 VDC

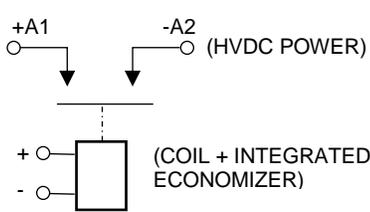
Wire Lengths:  
 A = 15.3 in (390 mm)

Coil Termination:  
 N = None

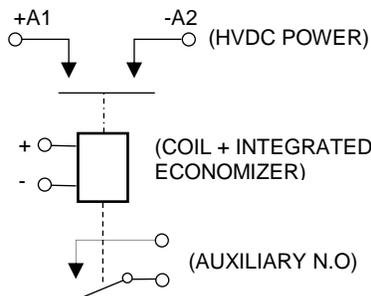
Mounting & power terminals:  
 A = Bottom Mount & Male 10mm x M8 Terminals (Hardware included for power terminals)  
 B = Bottom Mount & Female 10mm x M8 Terminals (Hardware no included)

\*Contact TE connectivity for this EV210 variant

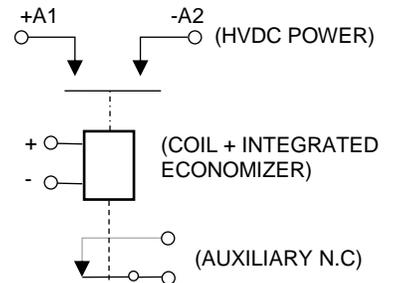
## Schematic



FORM A



FORM H



FORM G



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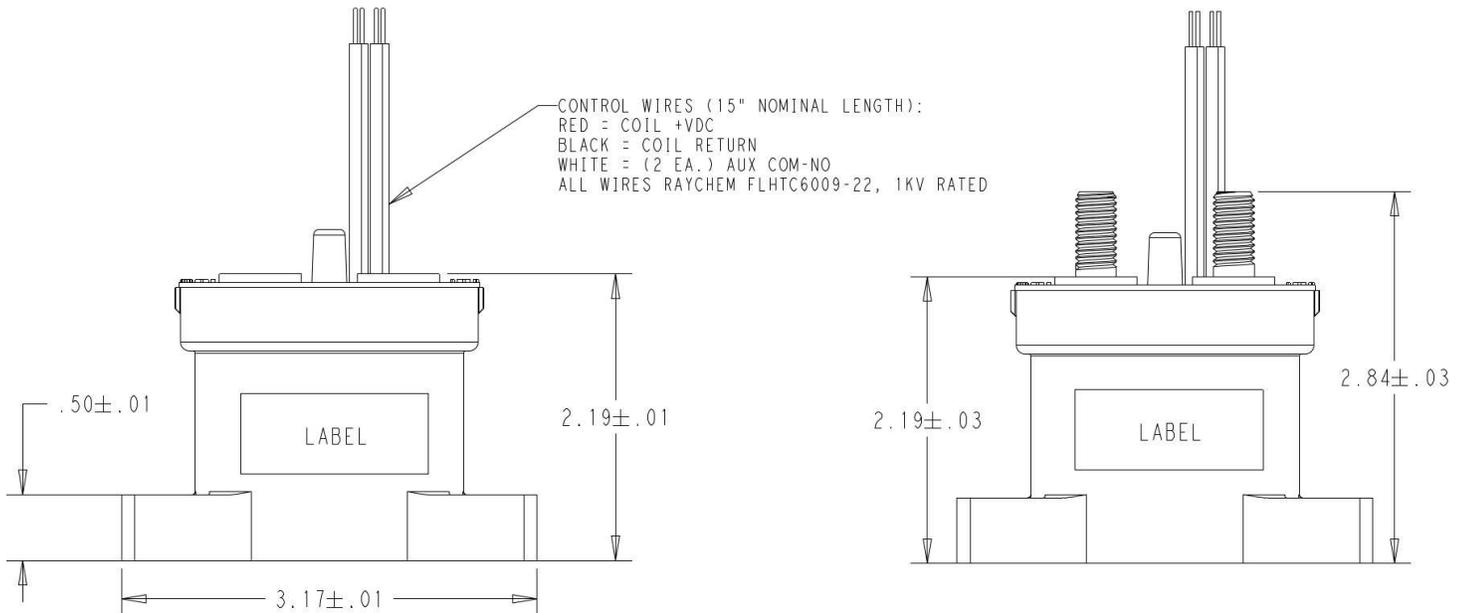
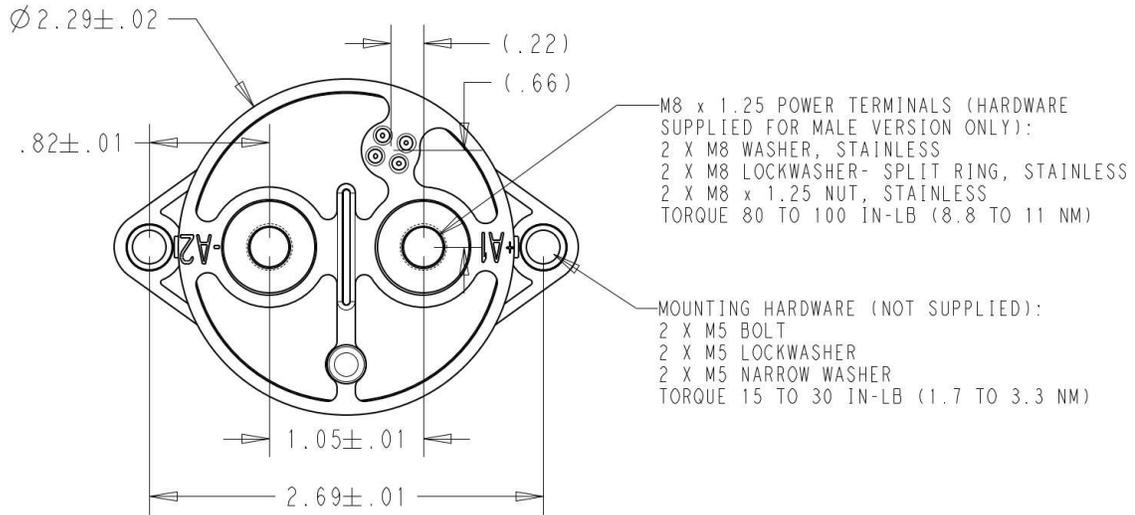
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# Drawing & Dimensions

REV.  
B1



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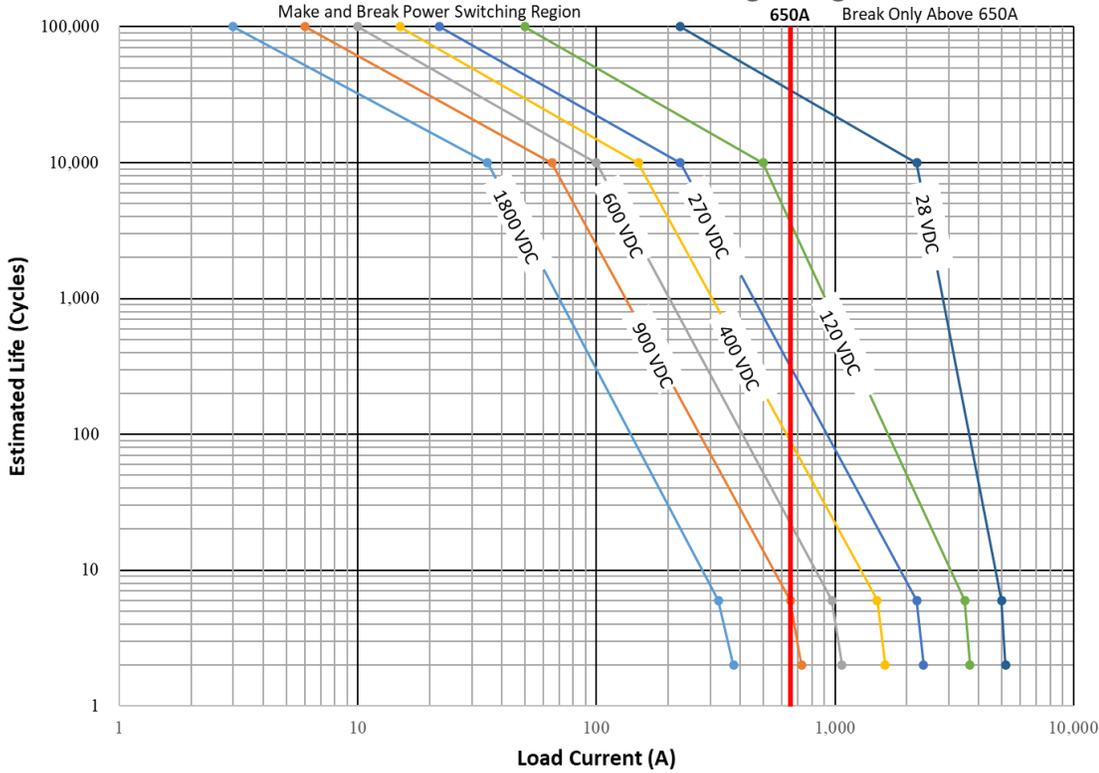
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### Graphical Data

#### Estimated Make & Break Power Switching Ratings

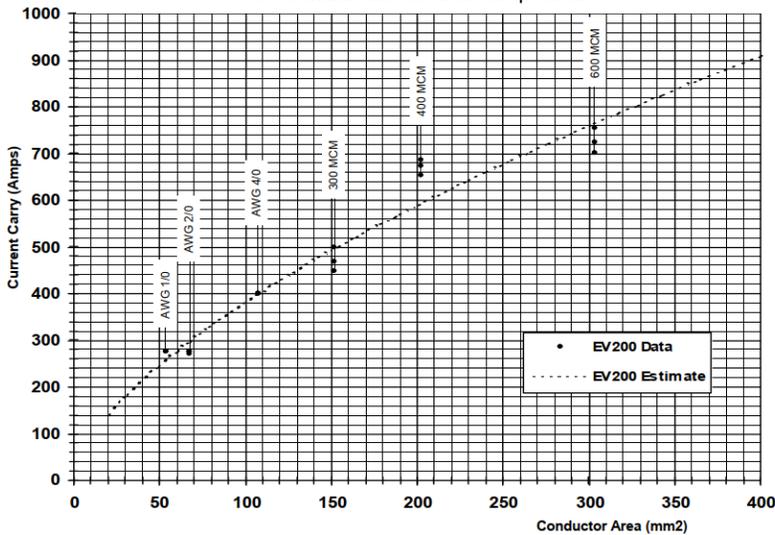


**NOTES:**

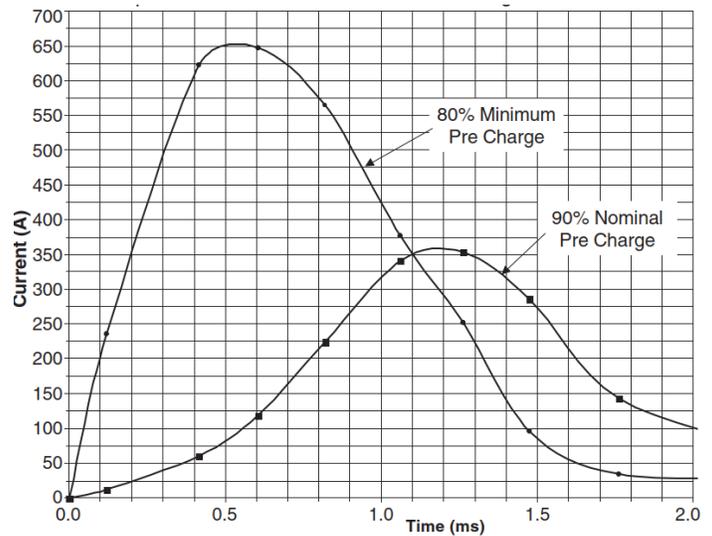
- 1) For resistive loads with 300μH maximum inductance. Consult factory for inductive loads.
- 2) Estimates based on extrapolated data. User is encouraged to confirm performance in application.
- 3) End of life when dielectric strength between terminals falls below 50 megohms @500VDC.
- 4) The maximum make current is 650A to avoid contact welding.

#### Estimated Current Carry VS Conductor Size

For EV210 Contactors @ 65° C max ambient  
65° C Terminal temperature rise  
150° C Maximum terminal temperature



#### EV210 Capacitive Make Test Curves for Pre-Charged Motor Controller



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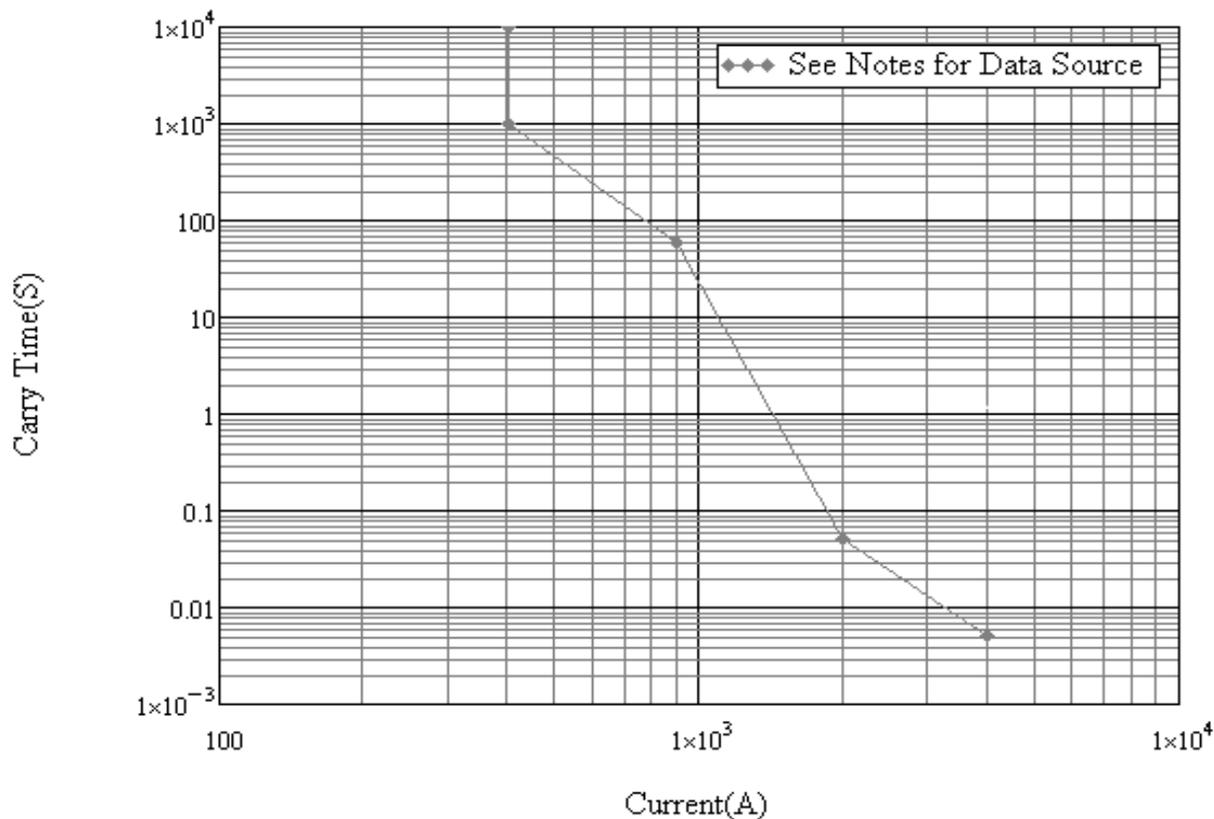
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none

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**EV210 Current VS Time**



**Application Notes for reference**

- Application Notes on Coil Power Economizing using PWM Circuits  
Available on the TE Connectivity website or upon request by contacting TE Connectivity
- Application Notes for EV/LEV Contactors  
Available on the TE Connectivity website or upon request by contacting TE Connectivity

**Revisions**

REV	DCO	APPROVAL AND DATE
A	16588	JS 09/28/2023
A1	16590	JS 11/15/2023
B	16625	JS 9/24/2025
B1	16626	JS 10/16/2025



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