Tyco Electronics

KILOVAC EV200 Series Contactor With 1 Form X Contacts Rated 500+ Amps, 12-900VDC

Product Facts

- **Designed to be the smallest, lightest weight, lowest cost sealed contactor in the industry with its current rating (500+A carry, 2000A interrupt at 320VDC).**
- **Built-in coil economizer – only 1.7W hold power @ 12VDC and it limits back EMF to 0V. Models requiring extenal 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/power connections.**
- **CE marked for EC applications.**
- **AIAG QS9000 designed, built and approved**

EV200 Series Contactor (CZONKA® Relay, Type III)

CE

c UL us **File E208033**

Typical EV200 applications include battery switching and back-up, DC voltage power control, circuit protection and safety.

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

Performance Data

Parameter	Units	Value for EV200 Series
Contact Arrangement, power contacts		1 Form X (SPST-NO-DM)
Rated Operating Voltage	VDC	12 - 900
Continuous (Carry) Current, Typical *Consult Factory for required conductors for higher (500+ A) currents*	A	500 @ 85°C, 400 mcm conductors
Make/Break Current at Various Voltages [1/]	A	See next page
Break Current at 320VDC [1/]	A	2,000, 1 cycle [3/]
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. Aux. Contact Current, Min.	A mA	2A @ 30VDC / 3A @ 125VAC 100mA @ 8V
Aux. Contact Resistance, Max.	ohms	0.417 @ 30VDC / .150 @ 125VAC
Operate Time @ 25°C Close (includes bounce), Typ. Bounce (after close only), Max. Release (includes arcing), Max @ 2000A	 ms ms ms	 15 7 12
Dielectric Withstanding Voltage	Vrms	2,200 @ sea level (leakage <1mA)
Insulation Resistance @ 500VDC	megohms	100 [2/]
Shock, 11ms 1/2 sine, peak, operating	G	20
Vibration, sine, 80-2000Hz., peak	G	20
Operating Ambient Temperature	°C	-40 to +85
Weight, Nominal	lb.(kg)	.95 (.43)

[1/] Main power contacts
[2/] 50 at end of life
[3/] Does not meet dielectric & IR after test, 1700 amp for unit with Aux. Contacts

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	EV200	A	A	A	N	A

Series:
EV200 = 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)
R = 28VDC with Mechanical Economizer

Coil Wire Length:
A = 15.3 in (390 mm) B = 6.0 in (152 mm)

Coil Terminal Connector:
N = None
B = Yazaki 7282-5558-10 male, 7114-4102-02, 7158-3030-50 +red is pin 2 (B length only)
C = Molex Mini-fit Jr, 2 Ckt, Female 18-24, P/N 39-01-2020 & 39-00-0060 +red is pin 1 (A length only)

Mounting & Power Terminals:
A = Bottom Mount & Male 10mm x M8 Terminals

Catalog EV200--R-TBD
Revised 8-07

www.tycoelectronics.com

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

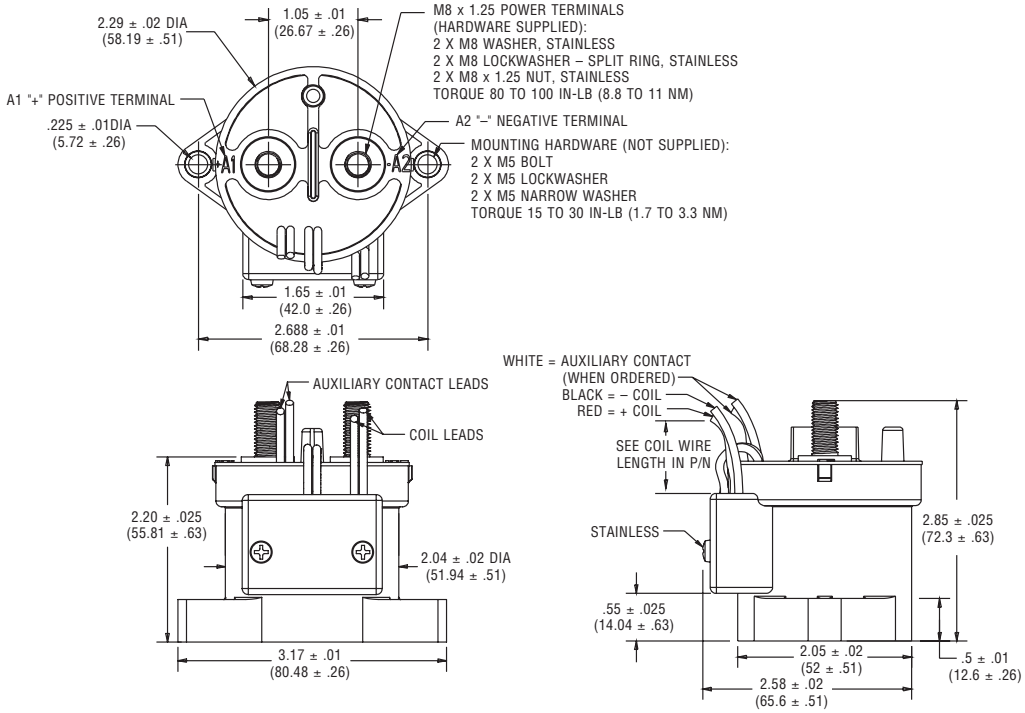
Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-5-729-0425

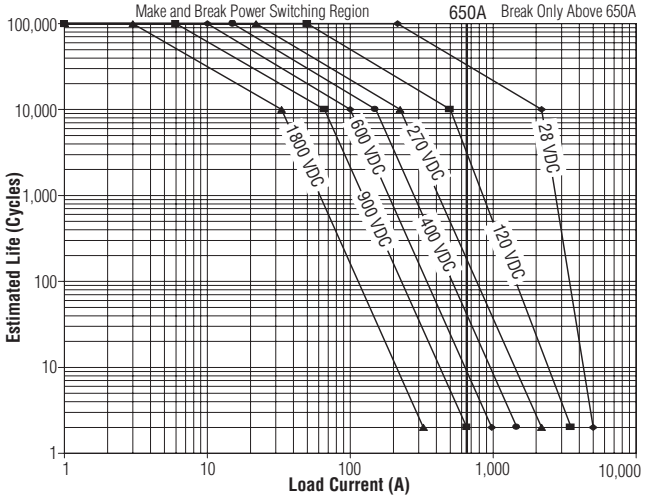
South America: 55-11-3611-1514
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-141-810-8967

KILOVAC EV200 Series (CZONKA® Relay, Type III) (Continued)

Outline Dimensions



Estimated Make & Break Power Switching Ratings

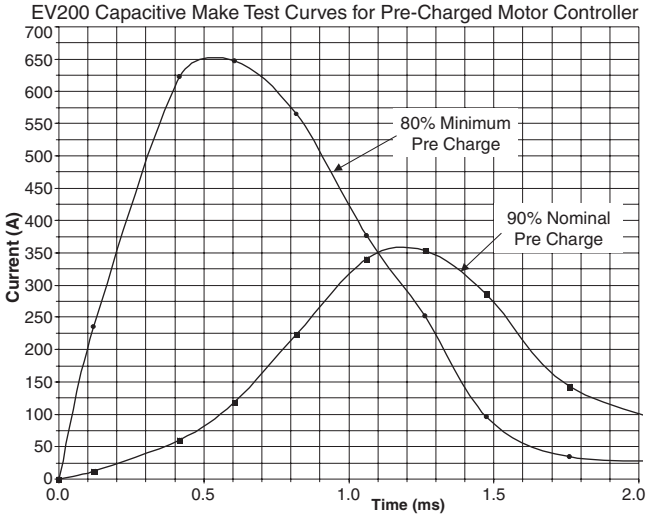


NOTES:
1) For resistive loads with 300H maximum inductance. Consult factory for inductive loads.
2) Estimates based on extrapolated data. User is encouraged to confirm performance in application.
3) End of life when dielectric strength between terminals falls below 50 megohms @ 500VDC.
4) The maximum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

Electrical Load Life Ratings for Typical EV 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*
Mechanical Life	**Cycles**	**1 million**

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



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity:
EV200AAANA