



KILOVAC EV202 High-Voltage Contactors

High Performance in a Compact, Lightweight Contactor
Designed for Harsh Environments



EV202 High-Voltage Contactors

Hermetically Sealed Double Pole 350 Amp DC Contactors

Hermetically sealed and designed for harsh environments and loads, KILOVAC EV202 high-voltage contactors from TE Connectivity (TE) offers exceptional performance in an extremely small and lightweight device.

Available with 12 or 24-V coils, the contactors are suited to 270 and 400-VDC power systems. They are available with two optional auxiliary contacts.

High break levels—2000 A at 270 VDC and 700 A at 400 VDC—help increase system flexibility and reliability.

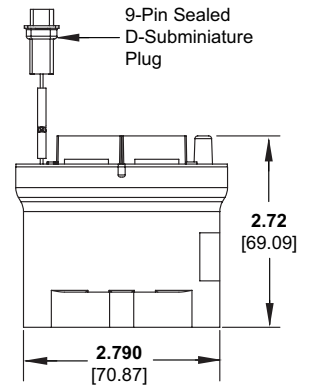
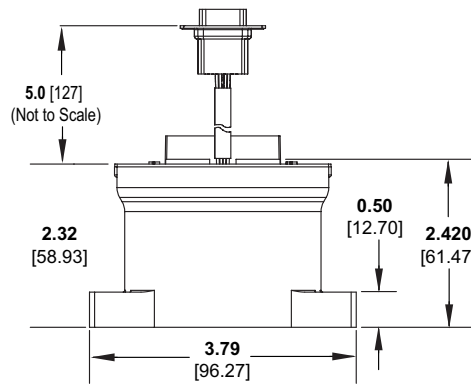
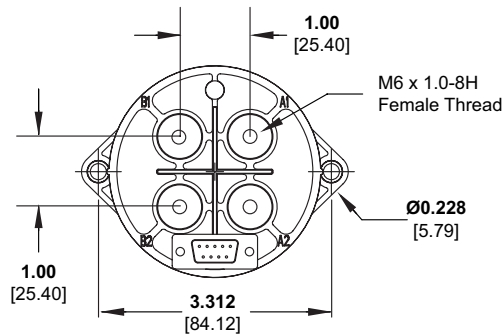
EV202 contactors provide reliable and long-lasting performance in military and commercial electric ground vehicles, energy storage systems, and power distribution and motion control applications.

TE Components . . . TE Technology . . . TE Know-how . . .
AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | DEUTSCH
SEACON Phoenix | LL Rowe | Phoenix Optix | AFP | SEACON

Get your product to market faster with a smarter, better solution.



Product Dimensions (Inches)



HERMETICALLY SEALED

- Suitable for application in harsh, explosive, and corrosive environments
- EMC compliant: no radiated coil emissions

SPACE AND WEIGHT SAVINGS

- Extremely small size
- Lightweight contactor: 0.77 kg

VERSATILE

- Bidirectional switching
- Main contacts not polarity sensitive
- Not position sensitive: mounts in any orientation

EFFICIENT

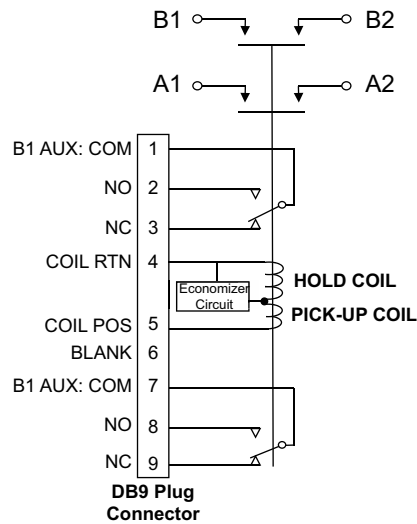
- Integrated dual-coil electronic economizer with coil suppression

APPLICATIONS

- Energy Storage/Battery Storage
- Power Distribution
- Power Motion Control
- High-Voltage DC Converter Systems
- Alternative Energy
- Military and Commercial Electric Vehicles
- Test Equipment

Typical Schematic

(Shown with Auxiliary Contacts)





Specifications

ELECTRICAL DATA

- **Configuration:** Double pole, single throw, normally open
- **Voltage Rating, Main Contacts:** 600 VDC, max.
- **Make Current:** 700 A, max.
- **DWV and Insulation Resistance over Life, Terminal to Terminal/Terminals to Coil**
Dielectric Withstand Voltage: 1 mA max @ 2200 V_{rms}
Insulation Resistance: 50 mΩ min. @ 500 VDC
- **Hot Switch Life:**

Make/Break Current	@ Voltage	Hot Switch Life
100 A	270 VDC	40,000
	400 VDC	10,000
250 A	270 VDC	7500
	400 VDC	2500
700 A Break Only	400 VDC	10
2000 A Break Only	270 VDC	2

COIL DATA (over -40°C to +85°C unless noted)

Coil Voltage, nom./max.	12/16 VDC	24/32 VDC
Pick up voltage, max. (applied as step voltage only)	8 VDC	16 VDC
Dropout Voltage	2.5-4 VDC	3-8 VDC
Coil Inrush Current @ V-nom., max.	5 A	4.5 A
Coil Inrush Time, nom./max.	75/150 ms	75/150 ms
Hold Current @ V-nom., max.	0.6 A	0.2 A
Coil Suppression, max.	40 VDC	60 VDC
Operate Times		
Operate Time, nom./max.	13/20 ms	13/20 ms
Operate Bounce, nom./max.	3/10 ms	3/10 ms
Release Time, nom./max.	5 ms	5 ms
Release Time, max. (including max. arc time)	25 ms	25 ms

Part Numbers

Coil Voltage	Aux Contacts	Lead Length	Connector	Description	Part No.
24 VDC	2	6"	Yes	EV202MSBFD	5-1618407-2
24 VDC	2	15.3	No	EV202MSAND	5-1618407-3
24 VDC	0	15.3	No	EV202ASAND	8-1618406-3
12 VDC	0	15.3	No	EV202AVAND	9-1618406-9

OPTIONAL AUXILIARY CONTACTS

- **Configuration:** Two SPDT switch outputs
- **Ratings:** 30 VDC/2A switching or 5 V/5 mA signal

ENVIRONMENTAL

- **Operating Temperature Range:** -55°C to + 85°C
- **Hermetically Sealed:** Safe for harsh/corrosive environments
- **Nonoxidizing:** No contact oxidation over periods of nonuse
- **RoHS Compliant**
- **Economizer:** Integrated electronically switched coil economizer with coil suppression
- **EMC Compliant:** No radiated coil emissions

MECHANICAL

- **Shock:** 11 ms 1/2 sine (operating): 20 g peak
- **Sine Vibration:** 10 g peak: 10 to 2000 Hz
- **Random Vibration:** 14 g_{rms}:

Hz	15	100	300	900	2000
g ² /Hz	0.01	0.01	0.2	0.2	0.01

- **Bidirectional Switching:** Main contacts not polarity sensitive
- **Mounting:** Mounts in any orientation; not position sensitive
- **Mechanical Life:** 100,000 cycles
- **Weight:** 0.77 kg



TE PART NUMBERING SYSTEM

EV202 M S B F D

SERIES

EV202 = Two Form X, DPST-NO-DM Contactor

AUXILIARY CONTACT OUTPUTS (SPDT form C)

- A** None
- M** Two

COIL VOLTAGE

- S** 24 V
- V** 12 V (With Built-In Dual Coil Economizer)

COIL AND AUX WIRE LENGTH (inches)

- A** 15.3
- B** 6
- X** Customer-Specified Configuration

COIL AND AUX CONNECTOR

- N** None
- F** D-Subminiature Plug on Flying Leads (May Affect Wire Length)

MOUNTING AND POWER TERMINALS

- D** Two M5 Bottom Mount with Four M6 X 1 Female thread terminals



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