



## KILOVAC K250 HIGH VOLTAGE DC CONTACTOR

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- Versatile industry leading performance
- Smaller size and lighter weight
- Bi-directional high power switching

# KILOVAC K250 High Power DC Contactor

Sets a New Industry Standard Performance for Current Carry and Isolation Voltage Relative to Package Size and Weight



TE Connectivity (TE)'s K250 high voltage DC contactor is hermetically sealed and designed for harsh environments. It is rated at 250 amps continuous, with an isolation voltage of 1000 Vdc, offering bi-directional power switching capability. Additional key features include an electronic coil economizer for low power holding capability, as well as auxiliary contacts in a smaller size, lighter weight package.

## RUGGED

- Hermetically sealed
- Designed for harsh environments

## SMALL SIZE/LIGHTWEIGHT

- Small and lightweight for its service ratings compared to other contactors on the market

## VERSATILE

- Bi-directional power switching
- Auxiliary contacts

## RELIABLE

- Continuous current carry 250 amps
- Isolation voltage 1000 Vdc

## ENHANCED PERFORMANCE

- Electronic coil economization for increased low power holding capability

## APPLICATIONS

- Power Distribution
- Alternative Energy
- Circuit Protection
- Energy and Battery Storage
- Motor Control Circuit Isolation

## MARKETS

- Charging Systems
- Military and Commercial Ground Vehicle Power Systems
- Test Equipment

## MATERIALS

- **Contact Arrangement:** Main Contacts SPST-NO (form X)
- **Auxiliary Contacts (.1A/6Vdc - 100 milliohm max):** SPDT
- **Weight, Nominal:** 180g

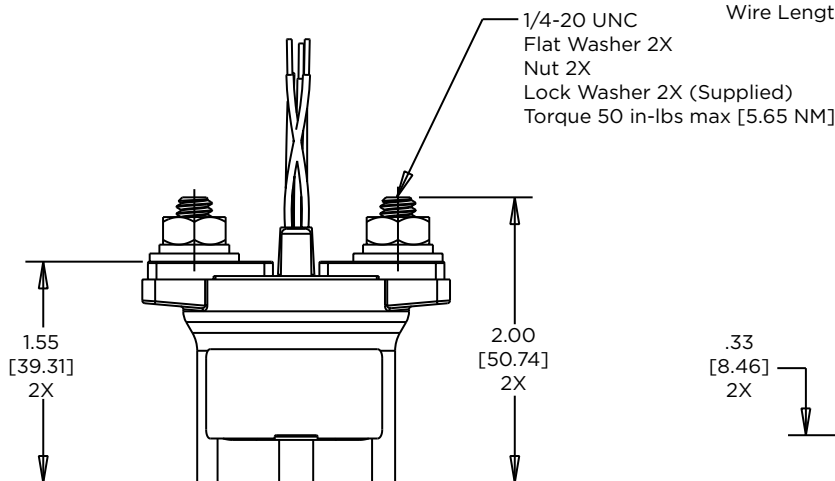
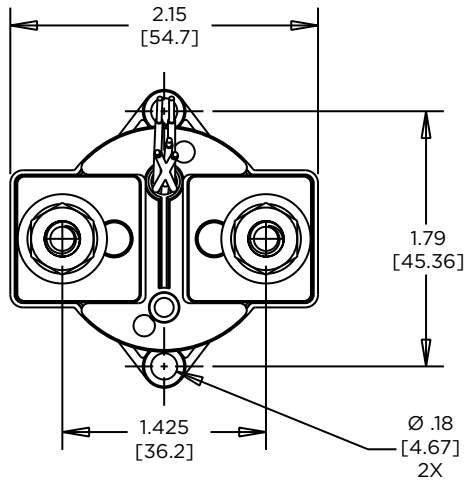
## MECHANICAL/ENVIRONMENTAL

- **Shock, 11ms 1/2 sine (operating):** 20G peak
- **Sine Vibration, 15G<sub>pk</sub>:** 55-2000 Hz
- **Operating Temperature Range:** -40°C to +85°C
- **Noise Emission (at 100mm distance):** 70dB (a)

## ELECTRICAL

- **Voltage Rating – Main Contacts (max):** 1000 Vdc
- **Current Rating, Continuous: Main Contacts [Note 1]:** 250A
- **Contact Voltage Drop: Main Contacts (max @250A):** 85mV
- **Resistive Load Performance:**

100A make/break @ 600Vdc:	1000 cycles
150A make/break @ 400Vdc:	1000 cycles
250A break only @ 400Vdc:	100 cycles
250A break only @ 600Vdc:	50 cycles
1000A break only @ 400Vdc:	5 cycles
600A break only @ 600Vdc:	5 cycles
80A break only @1000Vdc:	3 cycles
600A make only:	25 cycles
- **Maximum Short Circuit Current (1/2 cycle, 60 Hz) (through closed contacts or closure into load):** 1250 A
- **Mechanical Life:** 100,000 cycles



- **Dielectric Withstand Voltage:**  
Between Open Contacts: 4250 Vdc  
Contacts to Coil: 4250 Vdc
- **Insulation Resistance (Terminal to Terminal/Terminals to Coil):**  
100 MΩ min @ 1000Vdc [new]  
50 MΩ min @ 1000Vdc [end of life]

Notes: [1] 4/0 AWG/150 mm<sup>2</sup> conductor. Current rating is affected by conductor size. Keep terminals below 150° C max continuous.

## COIL (INTERNAL PWM COIL ECONOMIZER)

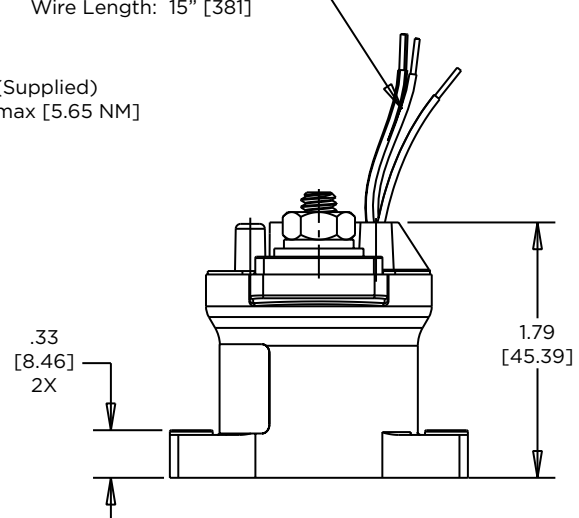
- **Coil Voltage Range:** 12-36 Vdc
- **Max Pickup Current (20°C):** 3.0A
- **Average Holding Current (20°C):** .28A @ 24Vdc
- **Pickup Voltage (20°C):** ≥12Vdc
- **Dropout Voltage:** ≤8Vdc
- **Pickup Pulse (max):** 100ms
- **Coil Resistance +/-5% (20°C):** 8.0Ω
- **Coil Economizer Frequency:** 19.6kHz
- **Coil Power Typ. (over temp range):** 5.2W
- **Main Contacts:**  
Operate Time (max): 30ms  
Operate Bounce (max): 5ms  
Release Time: 10ms  
Aux Contacts Simultaneity WRT Mains: 5ms

## ORDERING INFORMATION

**Part Number:** 1-1618414-2

**Recommended Termination Lug:** TE PN 2-36932-2

Coil/Aux Wires:  
M22759/11 - 24  
Red: Coil +  
Black: Coil Return  
Green: Aux COM  
Brown: Aux NO  
White: Aux NC  
Wire Length: 15" [381]



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