

INTRODUCING

KILOVAC KHR500 HIGH-VOLTAGE 600 AMP CONTACTORS

- Save space with a smaller size and lighter weight contactor
- Enable design flexibility with voltages from 28 to 1000 VDC and continuous 600A currents



TE Connectivity (TE) introduces the KILOVAC KHR500 “BUBBA II” high-voltage, high-rupture, 600 AMP contactor that is smaller, lighter and switches significantly higher power than its predecessor, the EV500 “BUBBA”. This new contactor is capable of handling inrush currents up to 4000A and are hermetically sealed for use in harsh and explosive environments. Configured as a single-pole, single-throw device, this contactor can handle voltages from 28 to 1000 VDC and continuous 600A current. Because it is not polarity sensitive, the KILOVAC KHR500 contactor allows bidirectional load switching. An integrated coil economizer reduces the power required to hold the contacts closed to 320 mA at 24 VDC. The contactor’s single-pole, double-throw auxiliary switch supports 3A at 125 VRMS or 1A at 30 VDC, and low-level signals down to 5V/10mA. The KILOVAC KHR500 contactor offers an integrated dual-coil electronic “cut throat” economizer, and can withstand 100,000 cycles, operating from -40°C to 125°C. With its rugged and robust design, the KILOVAC KHR500 contactor is ideal for ground vehicle, marine, solar, automotive and energy storage applications.

KEY BENEFITS

- Operate in explosive and harsh environments with a hermetically sealed contactor
- Save space with a smaller size and lighter weight contactor
- Enable design flexibility with voltages from 28 to 1000 VDC and continuous 600A current
- Allow for power switching in either direction with main power terminals that are not polarity sensitive
- Meet higher current transients associated with new battery technologies

ELECTRICAL

- Main Contact Arrangement: SPST (1 Form X)
- Auxiliary Contact Arrangement: SPDT (1 For C)
- Voltage Rating:
 - Main Contact: 28 to 1000 Vdc
 - Auxiliary Contacts: (3 A @ 125 Vrms or 1 A @ 30 Vdc)
- Current Rating:
 - Main Contacts, Continuous: 600 A
- Contact Resistance:
 - Main Contacts: 0.3 mΩ max @ 600 A
- Auxiliary Contacts: 150 mΩ @ 1 A
- Hot Switching Performance @ 400 Vdc:
 - 200 A Make/Break: 4000 cycles
 - 600 A Make/Break: 10 cycles
 - 3000 A Make/Break: 3 cycles
 - 4000 A Make or Pulse through Closed Contacts
- (1 ms risetime, 10 ms pulse duration): 10 cycles
- Dielectric Withstand Voltage: 1 mA max @ 2800 Vrms
- Insulation Resistance @ 500 Vdc:
 - 100 MΩ initial, 50 MΩ end of life

APPLICATIONS

- Aerospace
- Ground vehicles
- Marine
- Solar
- Automotive
- Energy storage systems

MECHANICAL

- Contact Arrangement:
 - Power Contacts: SPST (1 Form X)
 - Auxiliary Switches: SPDT (1 Form C)
- Shock: (11 ms 1/2 sine, (operating): 25 g (Z axis)/35 g (X, Y axes) peak
- Sine Vibration (20 g peak): 55 to 2000 Hz
- Random Vibration (13.3 Grms):
 - @ 15 Hz: .002 g2/Hz
 - @ 100 Hz: .002 g2/Hz
 - @ 450 Hz: .12 g2/Hz
 - @ 900 Hz: .12 g2/Hz
 - @ 2000 Hz: .083 g2/Hz
- Operating Temperature Range: -55°C to +125°C
- Weight: 0.56 kg (1.2 lb.)
- Mechanical Life: 100,000 cycles, min.
- Hermetically Sealed for Operation in Harsh/Explosive Environments

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[KHR500 Brochure](#)

[KHR500 Parts List](#)