



KILOVAC KHR500 HIGH-VOLTAGE 600 AMP CONTACTORS

Handle High Inrush Currents up to 4000 Amps, in a Small, Lightweight Hermetically Sealed Contactor for Harsh and Explosive Environments

KILOVAC KHR500 High-Voltage 600 Amp Contactors

Small, Lightweight, and Hermetically Sealed



TE Connectivity's (TE) KILOVAC KHR500 "BUBBA II" feature smaller size and lighter weight than our popular EV500 "BUBBA" high-voltage contactors. Capable of handling inrush currents as high as 4000 A, the contactors are hermetically sealed for use in hazardous or explosive environments.

Configured as a single-pole, single-throw device, the contactors can handle voltages from 28 to 1000 Vdc and continuous 600 A currents.

Because it is not polarity sensitive, the contactor allows bidirectional load switching. An integrated coil economizer reduces the power required to hold the contacts closed to 320 mA at 24 Vdc.

A single-pole, double-throw auxiliary switch supports 3 A @ 125 Vrms or 1 A @ 30 Vdc, and low-level signals down to 5 V/10 mA.

CAPABLE

- 600 A carry
- 3300 A break at 400 Vdc
- 4000 A make current
- Bidirectional load switching

HERMETICALLY SEALED

- Safe for application in harsh and explosive environments
- Not position sensitive
- Rugged, robust design

EFFICIENT

- Smaller and up to 64% lighter than our popular EV500 BUBBA contactors
- Integrated dual-coil electronic "cut throat" economizer
- Switches voltages from 28 to 1000 Vdc

APPLICATIONS

- Aerospace
- Ground Vehicles
- Marine
- Solar
- Automotive
- Energy Storage Systems
- UL 508 Recognized for US and Canada

MECHANICAL/ENVIRONMENTAL

- **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:** 55 to 2000 Hz:
25 g (Z axis), 35 g (X, Y axes)
- **Random Vibration** (13.3 G_{rms}):
@ 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 to +125°C
- **Weight:** 0.56 kg (1.2 lb.)
- **Mechanical Life:** 100,000 cycles, min.
- **Hermetically Sealed for Operation in Harsh/Explosive Environments**

COIL DATA

- 24/28 Vdc models at 20°C
Consult TE for 12 Vdc model or other voltages
- **Coil Voltage:** 24 Vdc nom./32 Vdc max.
 - **Pick Up:** 13 Vdc
 - **Dropout Voltage (max.):** 8 Vdc
 - **Coil Resistance:** 3.2 Ω/85 Ω Pickup/Hold
 - **Inrush Current (max @ 24 Vdc):** 4.5 A
 - **Inrush Time (max.):** 100 ms
 - **Timing:**
Operate Time: 25 ms typ.
Operate Bounce: 5 ms max.
Release Time: 15 ms max.
Simultaneity (Aux/Main): 5 ms max.

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

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SERIES _____

CONTACT FORM _____

A Form X, SPST-NO, Double Make
K Form X, SPST-NO, Double Make with 1 SPDT Auxiliary Contact

COIL VOLTAGE _____

S 24/28 Vdc, Electric Cut-Throat Economizer
V 12 Vdc, Electric Cut-Throat Economizer

COIL LEADS _____

A 15" Coil/Auxiliary Leads (No Connector)

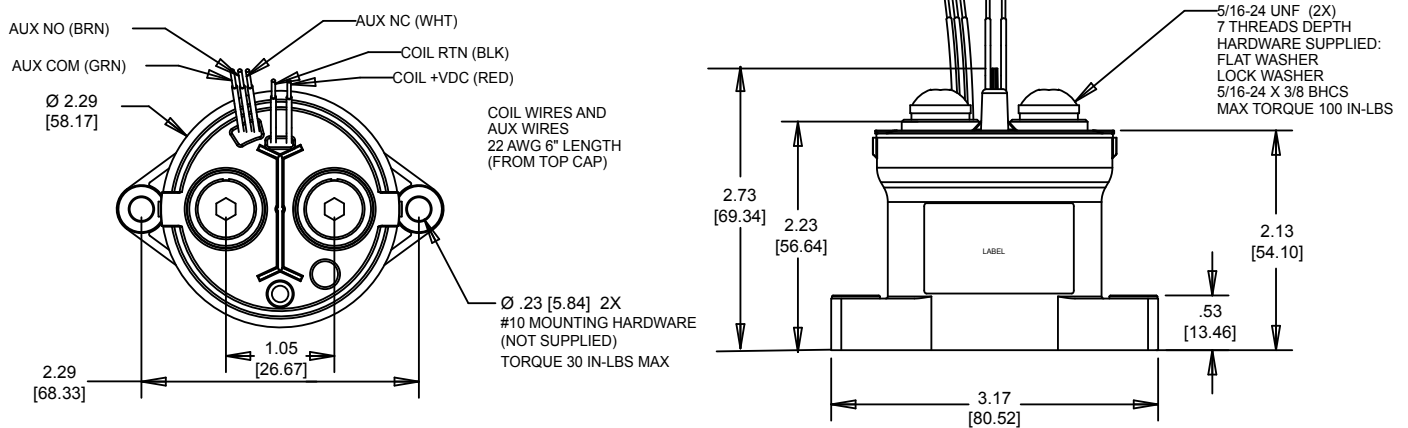
COIL/AUXILIARY CONNECTOR _____

N None

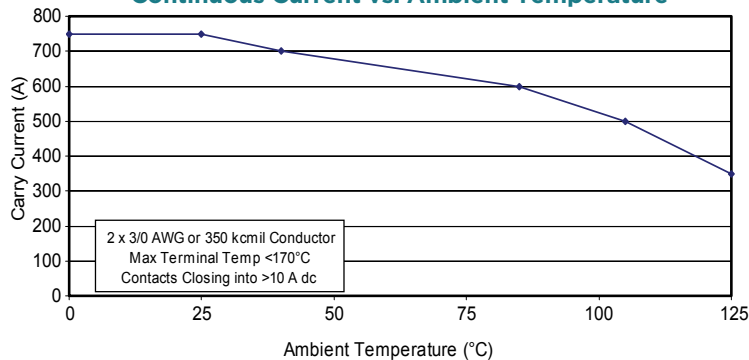
MOUNTING _____

L Bottom Mount, No. 10 Hole, 5/16-24 Female Terminal Main Power Connection

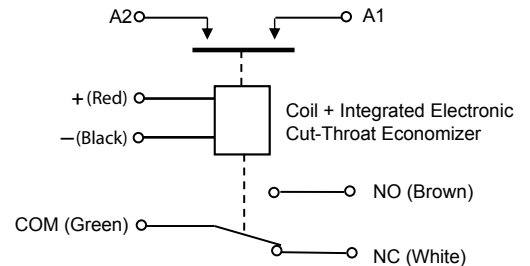
Product Dimensions



Continuous Current vs. Ambient Temperature



Schematic



Part Numbers

	24/28 VDC	12 VDC
No Aux Contact	KHR500ASANL	KHR500AVANL
Aux Contact	KHR500KSANL	KHR500KVANL

Connect With Us

We make it easy to connect with our experts and are ready to provide the support you need.

Visit te.com/support to chat with a Product Information Specialist.

te.com/khr500

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1-1773857-1 08/25

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