



*"The Right Control
for your Application"*

SUBJECT: KBTC - TORQUE CONTROLS

The KBTC controls are designed to control a motor's torque, by controlling motor current. Unlike a traditional KBIC, which controls voltage and limits current, the main potentiometer of the KBTC sets current. Also, motor current will not vary over the speed range. If the load is less than the current setpoint, the KBTC goes to max voltage.

Typical applications include winders, and tension rolls in web processing lines such as found in paper, textile, blown film and coating industries. The KBTC is used in tension control applications with dancers and load cells, receiving a reference from equipment such as that produced by Mag Power. The KBTC is for single direction operation only, where the motor is driving the load. For regenerative or reversing applications, use our KBRG family in one of the two available torque modes.

There are two models of KBTC torque controls. Both are rated for a maximum output current of 10 amps (8 amps max without an auxiliary heat sink). The KBTC-125 model operates from 115 VAC, and powers up to a 1 HP, 90-130 volt motor. The KBTC-225 model operates from a 230 VAC, and powers up to a 2 HP, 180 volt motor. Both of these controls are modified versions of a KBIC, with identical mounting and physical dimensions. The KBTC connections are the same as a KBIC control. It can use the same accessories, such as the Barrier Terminal Board and Barrier Terminal Kit. An SI-5 signal isolator can also be used to allow a remote voltage or milliamp current signal to set motor torque. The control utilizes a fixed value of Plug-in Horsepower Resistor (0.015 ohm) for all motor sizes.

There is only one trimpot on the control. The MAX trimpot will allow the customer to set the maximum available current (0-100% of 10 amps) to accommodate smaller motors. The inhibit and auto inhibit circuits work just as on the KBIC, and each control includes a fixed acceleration capacitor to control the rate of rise of current in the motor when first turned on.

The KBTC-125 model is KB part# 9100. The KBTC-225 model is KB part# 9101. If you require any additional information, please feel free to contact us.

Sincerely,

Richard Fritts
National Sales Manager