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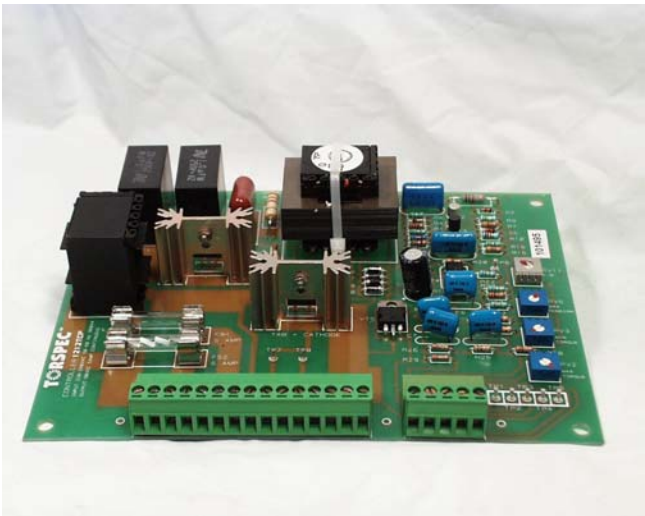

INSTALLATION AND SETTING UP MANUAL

1212TCP TORQUE CONTROLLER

WARNING

Disconnect all incoming power before working on this equipment.
Follow power lockout procedures.
Use extreme caution around electrical equipment.
Do not touch the circuit board while power is applied.

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Manufacturers & Suppliers of World Class Quality Variable Speed Drives & Controls

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Specifications

- 220/240 VAC 50/60 Hertz 840 VA
- Fuse rating, 5 Amp, 250 Volt
- 5 Amp DC output
- 90 Volt DC output
- Maximum ambient temperature 0-60° Deg. C
- Control Range, 90 to 3 VDC output
- Response to supply voltage variation, < 0.2% per Volt
- Size, 7.25" x 5.5" x 1.375" deep
- Weight, 1.1 lb.

Description

The 1212TCP torque control board can be used as a manual torque control or used in a radius sensing, winding application. This controller is not capable of speed control. If speed control is required, use the Torspec 5001TCP controller.

The 90 Volt DC output is derived from a SCR controlled by a current feedback circuit, which minimize error due to coil temperature and resistance changes.

The number of trim potentiometers is kept to a minimum for easy setup. The terminal strip incorporates a quick release construction for easy board changes.

Caution

This control board must be interlocked with the drive's motor starter to prevent the controller being energized when the motor is off.

Confirm supply voltage is as per control board's rating.

Installation

The 1212TCP control board has 4 adjustment pots for set up. RV2, RV3, RV5 can be left as set at the factory. RV11 must be set to correspond with the drive's main coil amperage. (See drive's nameplate).

Turn RV11 fully counter-clockwise for a coil load of 1 Amp, set midway for 2 Amp, and set fully clockwise for 5 Amp coils.

For standard torque control, set RV3 for minimum torque and RV2 for maximum torque. The potentiometer across A10, A11 and A12 will then control between these settings.

For diameter-sensing torque control wire the 1212TCP as per sample wiring schematic. Set the sensing arm at core (zero radiuses) and set sensing potentiometer with wiper at bottom end. Maximum sensing arm travel must not exceed mechanical travel of sensing pot. 80% is a good rule. Adjust pot RV3 (minimum torque), base torque pot and tension adjust fully anti-clockwise. Power up system with no web and set base torque clockwise until system load is overcome and the core starts to rotate. Move sensing arm to its maximum travel and set tension adjust to give maximum tension required. RV5 may have to be adjusted to give more torque when tension adjust is at maximum.

Note:

Base tension and tension adjust pots are interactive and repeat of set-up steps may be required.

Taper tension can be accomplished by setting base tension at a higher level.

POTS	DESCRIPTION	PRESET	ADJUSTMENT	NOTES
RV2	MAXIMUM TORQUE	Set for 90 VDC	Set for Maximum required torque	These two controls are interactive, repeat adjustment may be required
RV3	MINIMUM TORQUE	3 VDC	Set to overcome system friction	
RV5	MAXIMUM TENSION	Set for 90 VDC	As required	
RV11	CURRENT FEEDBACK	Fully CW	Set to match coil current	

1212TCP Controller Board Interconnection and Dimensional Drawing