



## TEXTRO ELECTRONICS

(TECHNOLOGY FOR LIFE)

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641033

TEXTRO ELECTRONICS STARTED AS A HOME GROWN MANUFACTURING ORGANIZATION, NEEDS OF DOMESTIC ENGINEERING, TEXTILE, ELECTRICAL AND ELECTRONIC INDUSTRIES IN COIMBATORE AND GROWN RAPIDLY IN THE SPACE. TEXTRO ELECTRONICS IS PROUD TO HAVE PIONEERED IN MANUFACTURING OF DC DRIVES AND AC DRIVES IN INDIA WAY BACK 2005.

THE COMPANY WAS CERTIFIED UNDER TUV SUD SOUTH ASIA ISO IAS MSCB-119 QUALITY MANAGEMENT SYSTEMS. THE MAJOR PRODUCTS OF OUR COMPANY ARE AC DRIVES, DC DRIVES, DIGITAL UNITS, AND PANELS.

### SAFETY INFORMATION

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

#### DANGER! - Ignoring the following may result in injury

This equipment can endanger life by exposure to rotating machinery and high voltages.

2. The equipment must be permanently earthed due to the high earth leakage current, and the drive motor must be connected to an appropriate safety earth.

3. Ensure all incoming supplies are isolated before working on the equipment. Be aware that there may be more than one supply connection to the drive.

4. There may still be dangerous voltages present at power terminals (motor output, supply input phases, DC bus and the brake, where fitted) when the motor is at standstill or is stopped.

5. For measurements use only a meter to IEC 61010 (CAT III or higher)

6. Allow at least 10 minutes for the drive's capacitors to discharge to safe voltage levels. Use the specified meter capable of measuring up to 1000V dc & ac rms to confirm that less than 50V is present between all power terminals and between power terminals and earth.

7. Unless otherwise stated, this product must NOT be dismantled. In the event of a fault the drive must be returned. Refer to "Routine Maintenance and Repair"

### FEATURES:

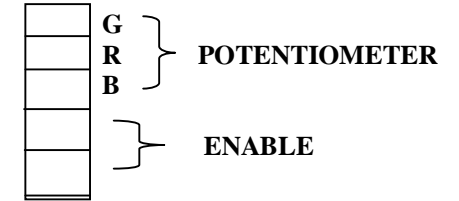
#### REGENERATIVE DC DRIVE:

- ❖ Input: 3PH 440V AC, 50 HZ.
- ❖ Output: Armature voltage - 0-440VDC
- ❖ Given **External Field voltage** by additional **DC drive** - 220VDC
- ❖ HP : ABOVE 5HP
- ❖ Current limit : MORE THAN 100AMPS.
- ❖ Acceleration/De-acceleration time adjustable.
- ❖ Max and min speed limits.
- ❖ Easy installation and service.
- ❖ Terminals to measure output Voltage and Ampere with digital meters.
- ❖ Available in customized input and output voltages and current.

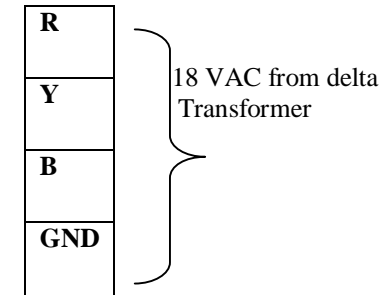
### REGENERATIVE DRIVE BOARD CONNECTION

#### TERMINAL DETAILS:

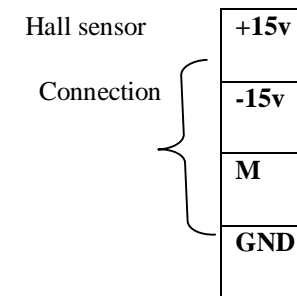
#### POTENTIOMETER CONNECTION:



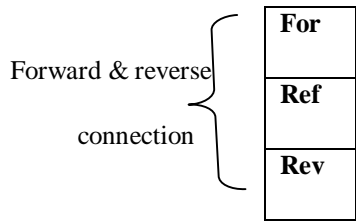
#### POWER SUPPLY FOR REGENERATIVE BOARD FROM TRANSFORMER:



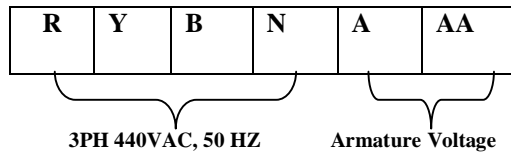
#### HALL SENSOR CONNECTION:



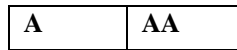
### FORWARD REVERSE CONNECTION:



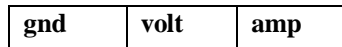
### OUTPUT TERMINALS:



### TERMINALS TO MEASURE VOLTAGE FEEDBACK:



### TERMINALS TO MEASURE VOLTAGE AND CURRENT:



- **amp & gnd** → Terminals to measure Current from hall sensor. Hall sensor gives the current signal that was changed as voltage by using 100ohm resistor in parallel connected to hall sensor output signal connector(M,GND).
- **Volt & gnd** → Terminals to measure Voltage

### FACTORS TO BE CONSIDERD:

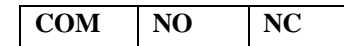
#### Before installing the drive

- From motor side check the armature coil ohms the range should be around 0.1 ohm to 5 ohm.
- Check the field coil ohms the range should be around 50 ohm to 600 ohm.
- Confirm that, the field and armature should not be shorted with the body.
- From drive side Confirm that, the enable is at closed condition. Confirm that, the Potentiometer is connected at the Potentiometer terminal.
- Connect the lamps at the field and armature terminals respectively.
- For single phase, connect around 100w bulb at field and armature terminals.
- For two phases connect two 100W bulbs seriously at armature terminals.
- The lamp which is connected at the field terminal should glow continuously.
- The lamp which is connected at the armature terminal should glow by varying the Potentiometer without any flickering. Now the drive is ready to connect with the motor. Remove the lamps and connect the field of the motor to the field terminal and armature of the motor to the armature terminal.

### POTENTIOMETERS DETAILS IN DRIVE:

- MAX** → To set the maximum Voltage.
- MIN** → Minimum voltage at which the motor runs without using main Potentiometer refer
- ACC** → Time taken by the motor to reach the Maximum voltage.
- DCC** → Motor OFF time (voltage to the motor is minimum i.e. zero)
- I set.** → Over current trip set.
- V set** → Over Voltage trip set.

### OVERCURRENT TRIP RELAY OPTION:



When drive is trip against the over current, this relay will be "ON". This Relay cuts the output of the pulse transformer.

### RESET TAG SWITCH:

- I set RESET** → After over current trip OC LED will on to reset the Over current trip press the OC button.
- V set RESET** → After over voltage trip OV LED will on to reset the Over voltage trip press the OV button.

## APPLICATION:

- ❖ Printing Industries.
- ❖ Sewage water treatment plant.
- ❖ Effluent treatment plant.
- ❖ Lathe Machine
- ❖ Rubber Industries
- ❖ Pet Bottle Making Machinery
- ❖ Conveyor
- ❖ Ball Throwing Machines
- ❖ Fasteners machines
- ❖ Food processing
- ❖ Extruders machines
- ❖ CNC Machines.
- ❖ Asphalt drums hot mix plant..
- ❖ Synchronized for multi motor application.
- ❖ Used For Customized Application.

## REGENERATIVE DC DRIVE:



Refer to Tetro Electronics Manufacturing Limited Terms and Conditions of Sale. These documents are available on request at [www.tetroelectronics.com](http://www.tetroelectronics.com). Tetro Electronics Manufacturing Limited reserves the right to change the content and product specification or dimensions in the datasheet without notice.