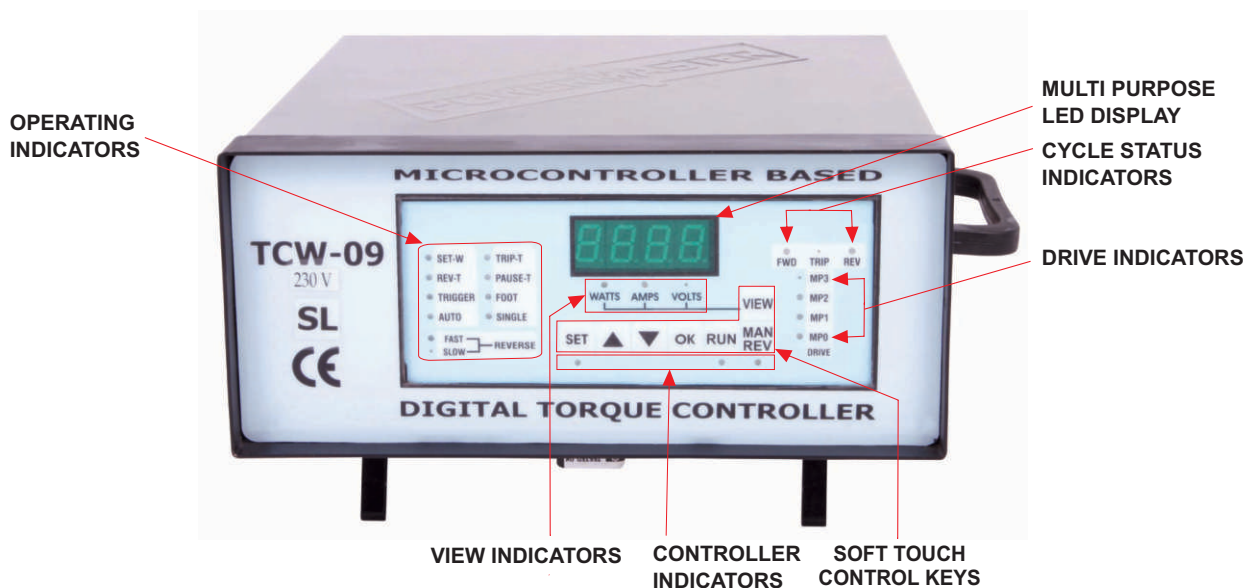


TCW-09 TORQUE CONTROLLER



Features :

- 1) Fully Solid State Design - no moving parts - no wear and tear of parts - no noise - consequently long life.
- 2) Uses one main circuit board for easy maintenance.
- 3) Uses the latest micro-controller chip for control functions.
- 4) Accurately calibrated digital torque settings with a resolution of 1 watt makes torque settings accurate and can be easily reproduced for identical results.
- 5) Soft start has been provided for all drives. This feature reduces starting currents in the drive. As a result, life of carbon brushes and drive increases.
- 6) Connected drive is automatically recognised and indicated by means of LED on the torque controller.
- 7) Torque setting arranged in four different ranges to suit four different drives. Appropriate wattage range is automatically selected for the connected drive, hence drives can not be abused or overused.
- 8) Actual drive wattage (torque) is displayed. Set wattage (torque), drive current and line voltage can be seen by press of a button.
- 9) Trip time adjustable from (0 sec to 10 secs.)
- 10) Adjustable reverse time from (0 sec to 90 secs.)
- 11) Pause time (time interval between cycles) adjustable from (0 sec to 90 secs.)
- 12) Manual reverse by push button, in case of emergency.
- 13) Drive Toque adjustable in reverse rotation with surface to set torque.
- 14) Hand (trigger) mode or foot switch mode, both are available.
- 15) Expansions can be carried out either in single cycle mode or auto repeat mode.
- 16) LED indicators provided for forward, reverse and trip conditions of drive.
- 17) MCB and internal short circuit protection in the controller safeguard the drive and controller against short circuits.
- 18) Plug in type of PCBs reduces down time to minimum during trouble shooting.
- 19) Over voltage protection at 275 voltage and under voltage protection at 180 volts
- 20) Protection against over load current drawn by the Expanding Drive.
- 21) Automatic indication on the display for controllers tripping due to voltage or Current fault.
- 22) All the spares inside the controller viz : PCBs, Transformers, CT, Relays DPM etc. can be replaced by use of only a screw driver.
- 23) Powermaster has over 2100 TCW Torque Controllers in active use worldwide since its inception in year 2000.

Micro Controller used : 89S52 (8 bit)
 Clock Frequency : 12 Mhz
 Programme Memory : 8 K (built in)
 Real Power Measurement upto : 2 KW
 Voltage, Current sampling rate : 50 times/sec.

Model No.	Voltage Single Phase 50/60 Hz	Weight (kg)
TCW-09-110	110 V	7.5
TCW-09-230	230 V	7.5