VIJAYANTA
VIJAI ELECTRONICS
28/147, CIVIL LINES
ROORKEE - 247667

DC Speed Control System

Model – DCS – 133.

Features and Specifications

- Built in step signal 1Hz,1V peak to peak
- Gain multiplication 3 to 10 in open loop
- Gain multiplication 3 to 100 in close loop
- Open loop motor speed control with eddy current brake
- Closed loop motor speed control with eddy current brake
- Compact system-no mechanical hassles
- Opto electronic speed sensor
- Digital display of speed on the panel
- Speed control of a 12V, 4W permanent magnet D.C. motor open/close loop
- Speed range: 0 to 3000 rpm (typical)
- Opto-interrupter based speed sensing
- 4-digit speed display in rpm
- Electronic tacho generator for feedback & RPM
- Separate unit for motor in a see-through cabinet
- Smooth, non-contact eddy current brake for loading
- Built-in 3½ digit DVM for signal measurements
- Built-in IC regulated internal power supply
- 220V±10%, 50Hz mains operation
- Supporting literature
    - Dimension : 410x215x140mm main unit approx)
    - • Weight: 3.5 kg main unit (approx.)
      : 215x160x130mm motor unit (approx.)
      : 2 kg motor unit (approx.)

List of Experiments

- Effect of loading on the speed of the motor in the open loop/close loop
- Steady state error variation with forward gain
- System time constant variation with forward gain
- Effect of forward gain on disturbance rejection
- Determination of the motor transfer function and
- Tachometer characteristics