



1500A AC/DC HIGH CURRENT INJECTION TEST SET

SPECIFICATION :

INPUT	:	415 Volts, $\pm 10\%$ 50Hz, 3 Phase AC.
OUTPUT	:	Continuously variable from zero to 1500A AC or DC
CAPACITY	:	Max. Permissible transient voltage is 6V
DUTY	:	60min. "ON" 30 min. "OFF"
UNIT	:	Four unit a) Control Unit, b) AC Loading Transformer & AC current measurement CT. (1500A/10A) c) DC High Current (0-1500A) Rectifier. d) Oil cool motor control Current Regulator.

CONTROL CIRCUITRY :

- Motor operated Continuously variable oil cool 3 phase auto transformers (Current Regulator) of suitable capacity Interconnected to control UNIT.
- Output current is measured by two nos. Analog ammeter (MAKE 'AE') One for AC Current another for DC Current (Shunt operated)
- Mains 'ON' – 'OFF' Switch (MCB) **OUTPUT 'START/STOP'** push button switch with OUTPUT 'ON' indication lamp.
- Automatic tripping mechanism for protecting the transformer, DIODE & 1 phase variac against over loading & short ckt. This tripping device is incorporate in the primary side. This tripping device which senses the output current to be higher than the SET OUTPUT CURRENT & trips the entire output Circuit.
- Zero start inter locking will be provided to ensure that the Circuit cannot be energized unless the voltage regulator is first returned to zero position.
- Lamp to indicate L.T. ON.
- Lamp to indicate Regulator NOT at zero position.
- Lamp to indication OUTPUT ON.
- Motor "increase/decrease" & push switch to increase motor.
- Fan used for cooling of Diode Bank & Loading transformer.

All the above components of the POWER SUPPLY unit are housed and wired in a highly finished nicely painted sturdy sheet metal cabinets with proper nomenclature & input output terminals.

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LOADING TRANSFORMER UNIT :

- Double wound loading transformer with secondary winding sections arranged for different output current ranges can be selected by making the series parallel links properly.
- Heavy current output terminal (0-1500A AC Current)
- Light current input voltage terminal for transformer input.
- 0-10Amp. AC.C. Analog (Scale 0-1500A) Ammeter in the secondary circuit of the current transformer, giving direct reading of loading current for AC Current (0-1500A)
- Separate output terminal for input to the DC Rectifier unit.

THREE – PHASE FULLWAVE RECTIFIER (0-1500 A DC)

D.C. Current source is generally obtained by simple single phase fullwave circuit. For fewer ripples & static magnetization of the transformer core is to be avoided.

Diode bank alongwith surge suppressor are used.

Silicon Rectifier : The Rectifier is assembled by using silicon diodes mounted on proper heat sinks and connected in full wave circuit individual R.C. components are used for hole storage protection. The diode assemble is always selected to have at least 25% rating above the maximum output current (0-1500A DC)

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