Electrical Circuit and Network Apparatus (AC & DC)
Model: LT-ADT-250
Brand: L-TEK
Country of origin China
Assembly by LabTech

Description:

The Electrical Circuit and Network Apparatus (AC & DC) should consist of below:

AC Power source for AC practical: Input voltage: 1 phase = 220V AC, 50Hz, 3 phase = 380 – 400V AC

Output Capacity: Resistive Load: 220V, Capacity 1 phase = 1000 W (min), 3 phase = 1000 W (min),

Inductive Load: 220V, 50 Hz.

Capacity 1 phase = 120VAR-300VAR, 3 phase=350VAR (min)

Capacitive Load: 220V, 50 Hz.,

Capacity 1 phase = 200VAR, 3 phase = 200 VAR (min)

DC Power source for DC practical: 2 Sets DC EMF source arrangement of Cells and Batteries.

Multi meter use for Measuring facilities:

DCV & ACV; Range mV to 600V DCA

& ACA; Range µA to 10 A Resistance Ω

to 40 M Ω capacitance nF to 100 µF

Frequency 1 Hz to 20 MHz Temperature -

20 to1000 deg C. Digital Wattmeter up to

6000 watts Power factor 0.01 to1.

DC Experiment List:

Verification of Ohms law

Study the Characteristics of Series circuit Study the Characteristics of Parallel circuit

Study the Characteristics of Series-Parallel or Mixed circuit

Verification of Kirchhoff's Current Law, Voltage law Verification of The venin's Theorem. Calculation of equivalent emf source and equivalent series resistance

Verification of Norton's theorem. Calculation of equivalent current source and equivalent parallel resistance Verification of Superposition theorem.

Verification of Maximum Power Transfer Theorem. Calculation of equivalent power source, equivalent source series resistance

Verification of Reciprocity theorem etc.

AC Experiment List:

Study the characteristics of the pure resistive, inductive, pure capacitive circuit as an individual, series, parallel-connected condition.

Measuring current and voltage in an R-L, R-C and R-L-C series circuit, parallel circuit.

Determining the value of resistance, inductance, the capacitance of R-L, R-C, R-L-C series circuit, Parallel circuit and drawing vector diagram.

Determining the effective or AC resistance of a coil.

Measuring the active power, reactive power, apparent power of an electrical load, and drawing Power Triangle.

Measuring the energy consumed by the electric load.

Determining power factor of R-L, R-C R-L-C series, and parallel circuit.

Measuring line and phase voltage & current of 3 phase star connected inductive load and capacitive load.

Warranty: 1 (One) year with services