Power Supply Circuit

Category: Test & Measurement · Model reference: MZM-9018



SPECIFICATIONS

Description
The Power Supply Circuits Trainer allows student to carry out a variety of power supply circuits experiments such as voltage regulator circuits and etc. The style of instruction provided by this teaching set is competency based, with circuit building activities being used to reinforce theory study trainer covers the subjects of DC generation/conversion techniques from the basics to the latest Industry-level solutions. The front face of the trainer shows the schematics of the circuits and has test point access sockets (2.5mm standard), switches, indicators, etc.. The trainer built-in with 12 faults switches console which can introduce faults for troubleshooting purposes. All the circuit items involving potential hazards for the inexperienced students are mounted inside the cabinet or otherwise duly protected.
– AC mains voltage : 115-220/250V, 50-60Hz (specify while ordering).
– Output voltage: 0-33V DC (max.)
– Output current: 1A (max.)

TECHNICAL SPECIFICATIONS :
Experimental Transformer Unit Input : 240VAC/50Hz
Output : 12V - 0 12V(1A) Fuse protection :
Potentiometer :
1. 1 K Ohm - 1xi
2. 100K Ohm - 1x
3. 1M Ohm - 1x
· Power diodes library module
· Power rectifier module
· Capacitors library module
· Resistors/load library module
· Lamp indicator module
· Built-in 4mm safety connectors for circuits connection
· Slide control switch 2 position
· On/off power switch with indicator
· Digital multimeter :
a. Display : 3.5 digit LCD
b. DC Voltage : 200 mV/2V/20V/200V1000V
c. DC Current : 200µA/20mA/200mA/10A
d. AC Voltage : 200V/750V
e. Resistance : 200W/2KW/20KW/200KW/2000KW
f. Continuity tester
g. Transistor tester
· Portable robust metal case form factor
· Input supply : 230-240VAC/50Hz
· Overload protection with fuse
· Fault simulation switches

EXPERIMENT SPECIFICATIONS
· Introduction to AC & DC power supplies
· The principal theories of transformer operations
· The transformer action, function & calculation
· The diodes action & characteristics
· AC step up/down
· The filtering capacitors
· Half rectifier DC power supply circuits
· Full rectifier DC power supply circuits
· Bridge rectifier circuits
· Constructing power supplier using diodes & rectifiers
· Regulated power supplies using regulator ICs
· AC power supply theories, circuits & application
· Power supply protecting circuits
· Introduction to switched mode power supply (SMPS)
· Troubleshooting power supply circuits

STANDARD TOOL
· Operation manual x 1
· Lab workbook x 1
· Connecting lead (1 set)
· Spare fuse
· Power cord

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