

Half, Full Wave and Bridge Rectifier With & Without Filters

Model : SB-105



SINCOM SB-105 Half, Full Wave and Bridge Rectifier with and without filters is All-In-One simply designed trainer to study the various operational aspects of a Half, Center tap and Bridge type Full wave Rectifier (FWR) using six PN Junction Diodes, with the facility to select different filters and variable load in a simple experimental way. This has different filters of C,CLC,CL,LC & π types with variable resistive load. The trainer is without meters and has the facility to connect the external analog or digital Voltmeter, Ammeter and Oscilloscope in the circuit.

Features

- ❖ User friendly Design
- ❖ Six Silicon PN junction Diode based Half wave, Full wave-center tap and Bridge type circuit
- ❖ HWR/FWR output for with and without filters
- ❖ Single Phase center tap step down Transformer
- ❖ Filters used are C,CLC,CL,LC & π types
- ❖ Easy selection of filters using SPDT Switch
- ❖ Variable Resistive Load
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram printed on the front panel of the white board.
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external Digital/Analog Voltmeter and Ammeter
- ❖ Facility to connect Oscilloscope for signal analysis
- ❖ Interconnections by 2mm high quality banana sockets and pins
- ❖ Maximum Test points to explore all the corners of experiment
- ❖ 1 Year Warranty

Technical Specifications

▪ AC Mains Power Supply	: 230V \pm 10%, 50Hz
▪ Rectifier Types	: Half wave, Center tap and Bridge type Full wave



An ISO 9001:2015 Co.

■ HWR Output Voltage	: +12V DC approx.
■ FWR Output Voltage	: +12V DC approx.
■ Diodes Used	: Six Silicon PN Junction Diodes 1N4007
■ Diode Package	: DO-41 Tape and Reel type
■ Transformer ratings	: Center tap Step Down 12V-0V-12V/500mA/50Hz
■ No. of Filters	: 05
■ Filter Types	: Selectable C, CLC, CL, LC & π types
■ Filters Selection	: SPDT Switch
■ Filter Capacitors	: Two Electrolytic Capacitors of 100 μ F and 1000 μ F
■ Filter Inductor	: One Inductor 68mH
■ Load Resistor	: Variable Resistive Load of 10K Ω
■ Weight	: 2.0 kg (approx)
■ Dimensions (mm)	: L 220 x W 270 x H 110
■ Interconnections	: 2mm Banana sockets
■ Operating Temperature	: 0-50 $^{\circ}$ C, 80% RH

Learning Scope

- To Study the Half Wave Rectifier (HWR) without and with C, CLC, CL, LC & π filter.
- To Study the Center tap Full Wave Rectifier (FWR) without and with C, CLC, CL, LC & π filter..
- To Study the Bridge type Full Wave Rectifier (FWR) without and with C, CLC, CL, LC & π filter..
- To observe & Note the change in Ripple factor with respect to change in different filters.
- To Observe and note Input and Output waveforms on Oscilloscope.

Other Instruments Required

SINCOM Digital VI meter (DVI) : Model DVI-01 Range V-20V, I-20mA DC, Oscilloscope.

Accessories Included

Set of Patch Cord and Details Instruction Manual