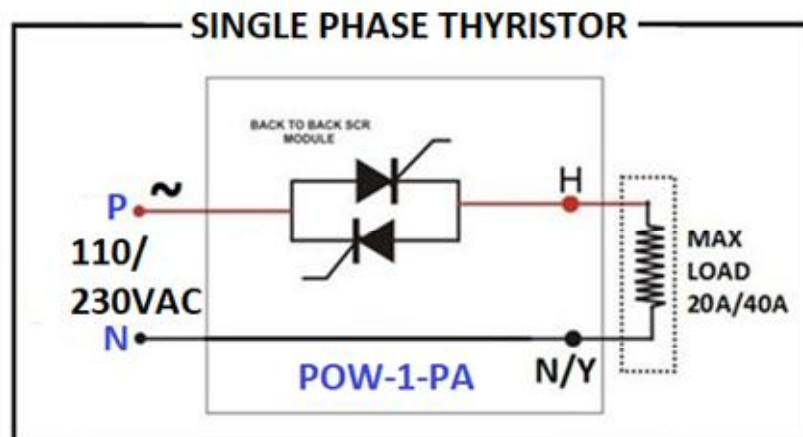
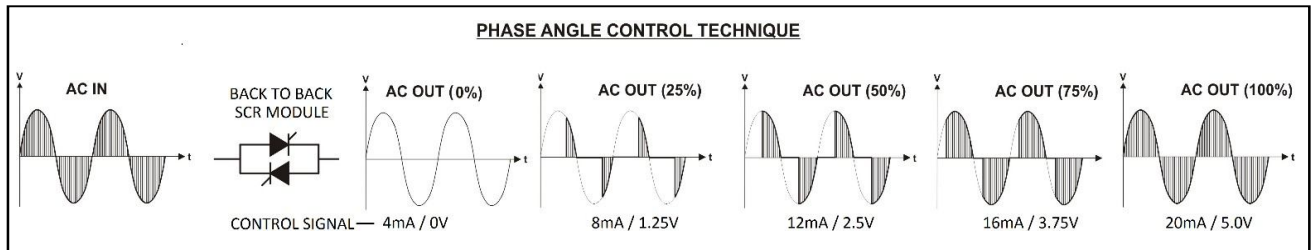
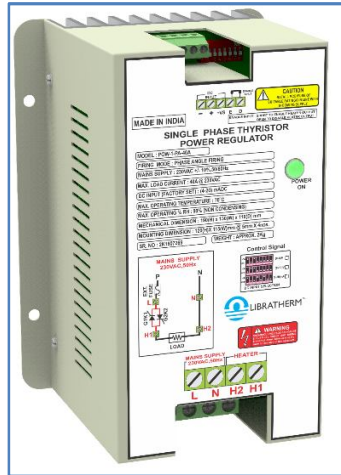


Single Phase SCR based Heater Power Regulator (ECO model)



Model Wise Description:

Model	Product Description	Size (H x W x D) mm.
POW-1-PA-20A	Single Phase SCR based Heater power regulator for 4KW/20A@230VAC load or 2KW/20A@110VAC	190 x 120 x 100
POW-1-PA-CL-20A	Single Phase SCR based Heater power regulator with Current Limit and Overload Trip settings for 4KW/20A@230VAC load or 2KW/20A@110VAC	190 x 120 x 100
POW-1-PA-40A	Single Phase SCR based Heater power regulator for 8 KW/40A@230VAC load or 4KW/40A@110VAC	190 x 130 x 110
POW-1-PA-CL-40A	Single Phase SCR based Heater power regulator with Current Limit and Overload Trip settings for 8 KW/40A@230VAC load or 4KW/40A@110VAC	190 x 130 x 110

Features:

- Solid-state, field-proven, rugged and reliable design.
- User selectable control signal 4-20mA/0-5V/0-10V
- Gradual, smooth and step-less control of power across the heater
- Current Limit and Overload current trip facility
- Suitable for Resistive and Inductive loads

Applications:

- Air Heater power control in HVAC for AHU and Dehumidifier
- Infrared heaters used in Plastic/Paper/Food industries
- Laboratory Furnaces/Oven
- Any Industrial heating requiring a precise control

Description:

Libratherm offers Single phase heater power regulator model **POW-1-PA-XX** for power control of resistive or inductive heating loads operating on 110 or 230VAC. This regulator accepts the user selectable DC control signal of 0-5V, 0-10V and 4-20mA and hence can be easily interfaced with DDC, PID, or PLC. For manual control, external potentiometer can also be used. The output voltage can be gradually varied proportional to the input signal. The built in back to back connected SCR can control single phase load of 20A to 40A. The phase angle firing control technique ensures smooth and gradual step-less control across the load.

Facility is also provided to adjust the soft increase or decrease in voltage across the heater load using on card Ramp UP and Ramp Down settings. The maximum and minimum output voltage across heater load can also be adjusted. Current Limit and Overload trip settings are provided in POW-1-PA-CL versions. The Trip RESET pushbutton is accessible to the user.

This model is available in a rugged powder coated metallic enclosure and can be easily fitted inside the panel.

Technical Specifications:

Item	Single Phase SCR based heater power regulator
Model	POW-1-PA-20A and POW-1-PA-40A
Control Signal Input (Linear)	0-5V, 0-10V, 4-20mA (DIP switch selectable) or using external 10K potentiometer.
Control Technique	Phase angle control (Self Synchronized).
Supply Voltage	110/230VAC +/- 10% @ 50/60Hz
Output Voltage (Single phase Load)	0 to 110/230VAC across the load and proportional to the control signal.
Max. Load Current	20A, 40A @ 230/110VAC (As per the model specified in the above table)
Ramp Up/Down and Max/Min Power	Adjustable using on-card single turn presets.
Current Limit/Trip Settings	Adjustable using on-card single turn presets. The current Limit setting can also be provided using an external potentiometer. (Available only with POW-1-PA-CL-XX models)
Enable/Disable input	External potential-free contact for ON/OFF operation.
Mounting	Base plate mounting using 4 screws.
Connections	Separate terminals for Auxiliary Supply, Heaters and Control Signals.
Dimensions	As given in the above table.

Specifications are subject to change due to continuous product up-gradation.

Ordering Information:

Model	Product Description	Part no.
POW-1-PA-20A	Single Phase SCR based Heater power regulator for 4KW/20A@230VAC load or 2KW/20A@110VAC	2301
POW-1-PA-CL-20A	Single Phase SCR based Heater power regulator with Current Limit and Overload Trip settings for 4KW/20A@230VAC load or 2KW/20A@110VAC	2302
POW-1-PA-40A	Single Phase SCR based Heater power regulator for 8 KW/40A@230VAC load or 4KW/40A@110VAC	2303
POW-1-PA-CL-40A	Single Phase SCR based Heater power regulator with Current Limit and Overload Trip settings for 8 KW/40A@230VAC load or 4KW/40A@110VAC	2304