

MODEL AL-50-CR-L CONSTANT CURRENT SOURCE / AMPLIFIER

Constant current sources and transconductance amplifiers provide a steady output current independent of the load and input power line with variations. Usage of these constant sources and amplifiers include generating magnetic fields, testing and qualifying products such as circuit breakers, relays, transformers, watt-hour meters, etc.

The model AL-50-CR-L/S constant current source (“/S” version) includes a full complimentary linear transconductance power amplifier and a 60Hz built-in oscillator. It outputs an adjustable sine wave output current. The output frequency of this model is fixed and defaulted at 60Hz. The model AL-50-CR-L/A transconductance amplifier (“/A” version) doesn’t have a built-in oscillator. It has a wideband output transformer instead. It takes an input signal from an external signal generator. It outputs a constant current in proportional to the amplitude of the input signal.

Specifications of model AL-50-CR-L/S Power Source and AL-50-CR-L/A Power Amplifier

Input Signal: 0 - 1.5 V rms. (for amplifier version “/A”)

Output:

Output Power: 50 watts continuous
Output Current: 0 – 1 A rms. @ 50 V compliance volts
0 – 5 A rms. @ 10 V compliance volts
Output Frequency: 60 Hz (+/- 0.5Hz) fixed (for source version “/S” only)
Frequency Response: 40 Hz to 4K Hz (for amplifier version “/A” only)
Output Waveform: sine wave
Current Regulation: 1% line and load
Output Distortion: 1% T.H.D.
Hum and Noise: -60dB below full output
Output Terminal: 5-way binding posts on front panel
Thermal Protection: auto-reset thermostat prevents heat damage
Short Circuit Protection: Input line circuit breaker
Power Factor Range: +0.7 to -0.7 for full power;
to zero @ reduced power

Input Power:

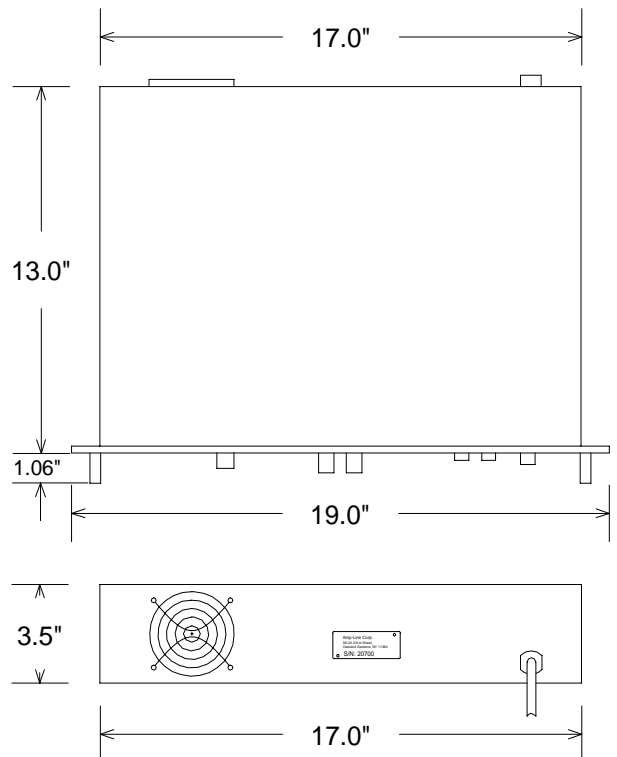
Power Efficiency: 45%
Input Power: 120 V AC 60 Hz (Defaulted)
Input Line Ampere Requirement: 2 A @ 120 V AC

Other Specifications:

Dimensions: 3.5”H X 19”W X 12”D
Weight: 25 lbs
Cooling Method: air force fan on rear panel
Operating Temp Range: -20 to 140 deg F
Storage Temp Range: -40 to 170 deg F

Note:

1. Square wave output is available at request.
2. Higher output frequency (than 4K Hz) is available at request.



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