

# MODEL AL-50-HF-A HIGH FREQUENCY POWER AMPLIFIER

The model **AL-50-HF-A** power amplifier is a wide-band, full complimentary class AB linear amplifier. The output impedance is ideally zero because of the negative feedback. Our customers use the amplifiers for plasma excitation, induction heating, magnetic field generation and testing products such as Helmholtz coils, piezo elements, inductors, capacitors and so on. Our power ratings are for continuous duty at full power with +0.7 to -0.7 power factor.

## Model AL-50-HF-A Power Amplifier Specifications

### Output:

Output Power:	50 watts
Output Volts:	0-28V rms. adjustable (Optional external output transformers to other volts are available at additional charge.)
Frequency Ranges:	20Hz to 1.2MHz
Maximum Output Current:	1.8A rms.
Output Distortion:	0.5% THD @ midband, 2% @ 200KHz
Hum and Noise:	-60dB below full output
Output Impedance:	Zero ohm (50 ohm matching at request)
Output Volt Meter:	2% front panel analog Meter
Short Circuit Protection:	Input line circuit breaker; Output circuit breaker
Thermal Protection:	Auto-reset thermostat prevents heat damage
Power Factor Range:	+0.7 to -0.7 for full power; to zero @ reduced power

### Input Signal:

Input Signal Requirement:	0-2V rms.
Input Impedance:	5K ohm
Input Waveform:	Sine Wave

(Square and triangle waveforms will work at less bandwidth.)

### Input Power:

Power Efficiency:	45%
Input Power Requirement:	120V AC 60Hz (Default) or 230V AC, 60Hz
Input Line Ampere Requirement:	1.2A @ 120V AC; 0.6A @ 230V AC

### Other Specifications:

Dimensions:	3.5"H X 19"W X 13"D
Weight:	25lbs
Cooling Method:	Internal heatsink and ventilation
Operating Temp Range:	-20 to 140 deg F
Storage Temp Range:	-40 to 170 deg F

### Options:

#### 1. DC Coupling

Normally our power amplifiers are AC coupled and usually supplied by us with output transformers to provide the voltage ranges specified by the customer. However, if specified the power amplifier amplifiers can be DC coupled. As a result, the frequency response of the power amplifiers will be DC to 1.2MHz at 0-28V rms.

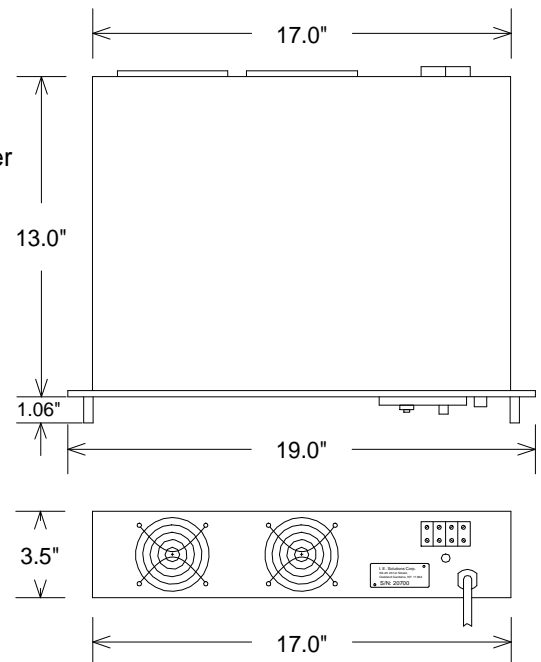
#### 2. Output Transformers

Our output transformers can go up to 10KV rms. or 800A, depending on desired frequency range. Consult factory for information on our standard or custom output transformers.

#### 3. Constant Current Mode

A Constant Current Controller can be supplied to go with the power amplifiers to achieve constant current mode operation in the whole frequency range specified.

## DIMENSION DRAWING



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