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E-507

HVPZT Amplifier Module

E-507.00

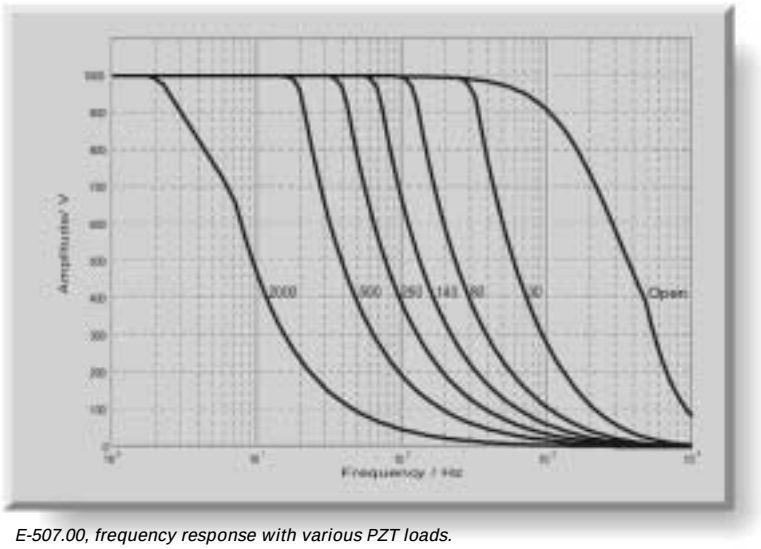
- **Up to 400 W Peak Power**
- **Output Voltage Range -3 to -1100 V & Bipolar**

The E-507.00 is an amplifier module for high-voltage PZTs. It can output and sink a peak current of 50 mA and an average current of 13 mA. The E-507.00 can be operated in two ways:

I. **Manual Operation:** The output voltage can be set by a 10-turn, DC-offset potentiometer in the range of -3 to -1000 Volts.

II. **External Operation:** Output voltage is controlled by an analog signal applied to the BNC input ranging from 0 to 11 Volts. Multiplying by the gain factor of -100, an output voltage range of -3 to -1100 Volts results. The DC-offset potentiometer adds a DC bias to the input, allowing continuous shifting of the input range between 0 V to +10 V and -10 V to 0 V (see page 6-40).

For computer-controlled operation, an E-516.i3 20-bit DAC interface/display module can be used (requires E-500/E-501 chassis). See graph for frequency response with selected HVPZTs.



E-507.00, frequency response with various PZT loads.
Values shown are capacitance in nF measured in actual PZT.

E-507.OE is the high current OEM version of E-507.00, especially designed for switching applications. It can output a peak-current of 400 mA for 1 msec. The E-507.OE is not equipped with front-panel connectors and knobs. All inputs and outputs are on the 32-pin rear connector.

Ordering Information

E-507.00
HVPZT Amplifier Module,
-3 to -1100 V

E-507.OE
HVPZT Amplifier Module, OEM,
400 mA Peak Current

Custom Designs
for Volume Buyers

Notes

E-507.00 is not a stand-alone device. It is designed to work in the E-500/E-501 chassis (p. 6-20) with integrated power supply. A 32-pin connector is used to interface with the E-500/E-501 chassis.

Technical Data

Models	E-507.00	E-507.OE
Function	Power amplifier	Power amplifier
Channels	1	1
Maximum output power	50 W (s. page 6-40)	400 W (s. page 6-40)
Average output power	13 W	10 W
Peak output current < 50 ms	50 mA	400 mA
Average output current > 50 ms	13 mA	10 mA
Current limitation	Short-circuit proof	Short-circuit proof
Voltage gain	-100 ±1, +100 ±1 (selectable)	-100 ±1
Polarity	Negative/positive/bipolar (jumper selectable)	Negative
Control input voltage	0 to +11 V, 0 to -11 V (jumper selectable)	0 to +11 V
Output voltage	-3 to -1100 V (-780 to +260, -550 to +550, -260 to +780, +3 to +1120 V, jumper selectable)	-3 to −1100 V
DC-offset setting	-3 to -1100 V at output with 10-turn pot.	-
Input impedance	100 kΩ	100 kΩ
Control input sockets	BNC	DIN 41612, 32 pin, rear (BNC)
PZT voltage output sockets	LEMO ERA.0A.250.CTL	DIN 41612, 32 pin, rear
Dimensions	One 14T slot wide, 3H high	One 14T slot wide, 3H high
Weight	0.75 kg	0.75 kg
Operating voltage	Requires E-530/E-531 power supply (E-500/E-501 system)	Requires E-530/E-531 power supply (E-500/E-501 system)