LINEAR POWER AMPLIFIER

Precision Linear AC/DC Power Supply for Advanced Testing and Simulation



The Linear Power Amplifier is a high-performance AC/DC power supply solution engineered for applications requiring exceptionally stable voltage output and ultra-low ripple performance. Designed for laboratory, validation, research, and simulation environments, it provides the power quality necessary for accurate measurements and reliable operation of sensitive electronic systems.

- Delivers highly stable AC/DC power for critical testing applications
- Ultra-low ripple performance below 1 mV RMS
- Supports advanced PHIL and Hardware-in-the-Loop environments
- Enables highly accurate validation, characterization, and simulation testing

Averna
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High-Precision Power for Critical Test Applications

Built using linear amplifier technology, the solution is ideally suited for advanced power electronics testing, Power Hardware-in-the-Loop (PHIL) simulations, grid emulation, converter characterization, and research programs where signal quality and stability are essential.

Key Benefits

- Improved measurement accuracy through ultra-low ripple output
- Very large bandwidth (up to 70kHz standard, and more with specific tuning)
- Stable voltage performance under varying load conditions
- Reduced testing uncertainty and measurement errors
- Enhanced reliability for power electronics validation
- Seamless integration into laboratory and HIL environments
- Supports a broad range of advanced simulation applications

Deliver Precise Power for Your Most Demanding Test Environments

Improve the accuracy, repeatability, and reliability of your power electronics testing with Averna Powered by Spherea's Linear Power Amplifier. Contact our experts to learn how this high-performance solution can strengthen your validation and simulation capabilities.

Advanced Power Performance for Validation and Simulation

Ultra-Low Ripple Performance

- Residual ripple below 1 mV RMS
- Optimized for precision measurement environments
- Ideal for sensitive electronic loads and instrumentation

Stable Voltage Regulation

- Maintains consistent output under dynamic load conditions
- Voltage regulation better than ±0.1%
- Supports highly repeatable test results

Advanced Test Applications

- Supports converter and inverter validation including ripple simulation up to 70kHz
- Enables electrical device characterization
- Provides source and load emulation capabilities

PHIL and HIL Integration

- Compatible with Power Hardware-in-the-Loop environments
- Supports AC and DC grid emulation
- Integrates into modern simulation and validation platforms

→ Technical Specifications

Specification	Details
PRODUCT TYPE	Linear AC and/or DC Power Amplifier
OUTPUT VOLTAGE	0-1120 V DC and up to 400 Vrms AC
OUTPUT CURRENT	Up to 53 A (600 A with output transformer)
RIPPLE	‹ 1 mV RMS
VOLTAGE REGULATION	‹ ±0.1% Full Scale + 0.1% Setpoint
OUTPUT BANDWIDTH	› 5 kHz full scale up to 70 kHz small signal (10%)
OPERATING TEMPERATURE	-20°C to +55°C

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