

5101 Power Test System Specifications

SYSTEM CONTAINS:

4 - LVC5050RLY Current Mode Amplifiers

2 - LV3620 Voltage Mode Amplifiers

24U System Cabinet with:

Power distribution,
Prewired front panel input and output connections
Front panel main power disconnect

User Selectable Options include:

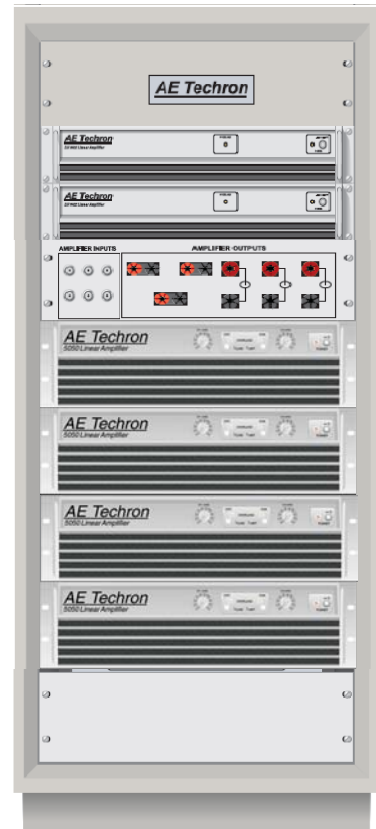
User selectable balanced or unbalanced input
connectors

APPLICATION

The 5101 three-phase system, specifically designed for the power utilities industry, is used in power systems modeling, and testing of protective relays and panels, transformers, CT's and VT's.

FEATURES

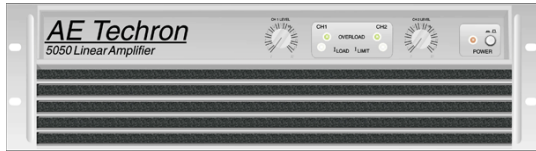
- Extremely low levels of noise, distortion, gain error, and differential phase error
- Linear operation ensuring repeatability of tests.
- Internal circuitry protection from input overload, thermal overload, or improper load impedance (including short and open circuit)
- Patented grounded full-bridge output topology with floating in the AB+B mode.



AE TECHRON[®]

Precision Industrial Amplifiers

INDIVIDUAL AMPLIFIER SPECIFICATIONS



LVC5050RLY

INDICATORS AND CONTROLS

- > Front panel LEDs indicate on, signal presence and output overload conditions.
- > Front panel On/Off switch.
- > Overload, over voltage, and over temperature indicators

PERFORMANCE (One hour continuous ratings)

Max. Output Voltage

140 V pk

Max. Output Current

98 A pk

Output Load Constraints

0.25 ohms, 50 microhenries

DC Output Offset Current

<10.0 milliamps pk (input shorted)

CMRR

-70 dB min, 40 to 600Hz

Differential Phase Error

<0.1 degree at 60 Hz

Residual Noise

<1.0 milliamps pk (40Hz to 600Hz)

Gain

6 A/V plus or minus 0.2%

Frequency Response

DC to 10 kHz, into 0.25 ohms

THD + Noise

<0.10% at 600 Hz, full output power

LV3620

INDICATORS AND CONTROLS

- > Channel 1 and 2 Overload indicators
- > Power indicator
- > AC Power Switch

PERFORMANCE (One hour continuous ratings)

Max. Output Voltage

150 Vpk/ch,

Max. Output Current

7.25 Apk/ch

Output Load Constraints

24 ohm min, 0 to 90 degrees

Output Impedance:

<10 milliohms in series with less than 2 microhenries

DC Output Offset Voltage

<10.0 millivolts pk (input shorted)

CMRR

-70 dB min, 40 to 600Hz

Differential Phase Error

<0.1 degree at 60 Hz

Residual Noise

<10 millivolts pk (40Hz to 600Hz)

Gain

40 V/V plus or minus 0.2%

Frequency Response

DC to 20 kHz

THD + Noise

<0.10% at 600 Hz, full output power



PHYSICAL CHARACTERISTICS

Dimensions: Single-bay: 61 in (155 cm) high X 23.1 in (58.7 cm) wide X 36.3 in (92.2 cm) deep (Includes casters and anti-tip extenders)

Weight: Approximately 700 lbs (408 kg) for single-bay cabinet

Operating Environment

Ambient temperature: 50 to 99 degrees F (10 to 37 degrees C)

Humidity: 10% to 70% non-condensing

Altitude: -400 to 8000 ft (-120 to 2440 m)

Magnetic Field: 200 gauss max.

Color: Black standard; custom colors available.

SUPPORT

Every Techron product is supported by our practices and people.

Techron provides:

- > Applications engineering for your technical questions and customized product needs.
- > A one year limited warranty to protect your equipment investment.
- > A fully equipped service center to keep your amplifier operating at original performance requirements.