

LUCIA® 240/1-70 | LUCIA® 120/1-70



- ▶ **Two models for constant voltage applications** – 1 x 120 W or 1 x 240 W into 70 V/100 V¹
- ▶ **Comprehensive DSP features** – Per channel presets for high-pass filter, parametric EQ, multi-band compressor, and look-ahead limiter
- ▶ **Automatic Dynamic Loudness Contouring™** – DSP automatically adapts to optimize performance at any output level
- ▶ **Optimized presets** – Available for specific loudspeaker models
- ▶ **2 x 1 mix matrix** – Mix two sources to mono or use for source selection
- ▶ **Configuration software** – Windows and Mac software wizard for initial set-up, and advanced editor for preset configuration (LUCIA connection via USB)
- ▶ **RS232** – Remote control and monitoring from third party control solutions
- ▶ **GPIO** – Remote control (e.g. wall panel) for channel switching, level control and integration with paging systems
- ▶ **Efficient Class D amplifier** – Patented design for low distortion and minimal heat dissipation
- ▶ **Compact form factor** – Half-rack, 1U chassis and supplied bracket for discreet on-wall mounting (e.g. behind display screens)
- ▶ **Intelligent fan control** – Silent operation at idle and at lower output levels
- ▶ **Fail-safe operation** – Comprehensive short circuit, thermal, and under-voltage protection
- ▶ **Selectable high-pass filter** – Rear switches for ON/OFF and 50 Hz or 80 Hz filter. The filter is in series with the customizable input and output EQs (which are flat from the factory)
- ▶ **Universal power supply** – Operates at 100 - 240 V AC (50 or 60 Hz)
- ▶ **ENERGY STAR® qualified** – Conforms to latest specification energy efficiency standards

Enhanced flexibility in 70 V installations

Combining premium audio performance with extraordinary flexibility, Lab.gruppen's innovative LUCIA (Localized Utility Compact Intelligent Amplification) introduces a decentralized approach to AV systems design. Power, limiting, control and I/O are conveniently placed where needed, offering a cost-efficient and scalable solution that often eliminates the complications and added costs of a centralized equipment room. All LUCIA amplifiers incorporate a digital, firmware-controlled front end coupled to a robust, durable and highly efficient Lab.gruppen output stage. This model brings the inherent advantages of the LUCIA concept to a range of constant voltage applications.

Fast installation, reliable operation

LUCIA amplifiers install quickly using the supplied wall-mount bracket (for on-wall placement e.g. behind video displays, or on ceilings, or cabinet walls or under tables etc) or on rubber feet on any flat surface. Pole-mount and rack-mount brackets are available as options. All connections are detachable, and level setting is available on front-panel potentiometers as well as via GPI. An advanced protection scheme protects the amplifier and connected loudspeakers from potential damage caused by clipping, thermal overload, or extremely low line voltage. LUCIA's built-in matrix automatically mixes the balanced and unbalanced inputs with optimized gain structure. Selection or mixing of inputs is accommodated by front panel potentiometers or by configuration of the GPI.

Integrated DSP for enhanced flexibility

All LUCIA models incorporate comprehensive DSP features, including look-ahead limiter and flexible equalization which often eliminate the need for external mixers and processors in many applications - saving time and money. A software wizard facilitates fast set-up via USB, a feature that can this reuse previous set-up files.

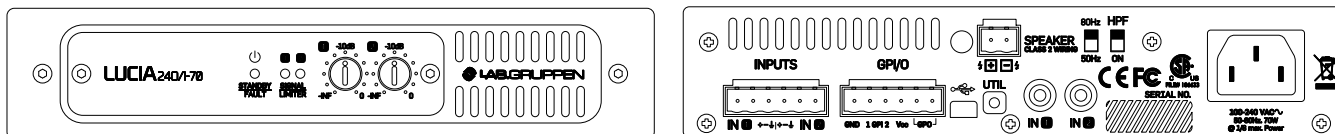
Green credentials

LUCIA amplifiers are ENERGY STAR qualified, making them ideal for installation in projects seeking energy efficient certifications. LUCIA amplifiers automatically enter standby mode after a 20 minute period with no signal input, consuming less than 1 watt. Automatic power-up occurs within one second after an input signal is sensed, a feature that often eliminates any need for power sequencers or controllers. If no loss of initial audio is required (e.g. for an important message), a contact closure on GPI-2 can turn on the amplifier before audio playback.

¹ The peak voltage is 100 V, but the look-ahead limiter solution ensures that it cannot clip, so in real life use with music or speech it will typically be able to sustain a higher SPL in 100 V applications than 100 V amplifiers with higher peak voltage capability as the amplifier have the capacity to handle peaks way beyond "clip" without sounding harsh.

Applications

- Retail outlets
- Bars & restaurants
- Entertainment venues
- Corporate board rooms
- Classrooms
- Multimedia spaces
- Hotel reception/lobbies
- Museums & galleries
- Small corporate event spaces



Specifications

General	LUCIA 240/1-70	LUCIA 120/1-70
Number of powered channels	1	1
Total output all channels driven	240 W	120 W
Max output voltage	100 V peak	100 V peak
Max. output current	7 Arms	3.5 Arms
Performance		
70 V	240 W	120 W
100 V ¹⁾	120 W	60 W
16 ohms	240 W	120 W
Signal-to-noise ratio	>100 dBA	>100 dBA
Gain, Sensitivity and Limiters		
VPL	100 V peak	100 V peak
Sensitivity, balanced input	4 dBu / 1.23 Vrms	4 dBu / 1.23 Vrms
Sensitivity, RCA input	-2 dBu / 0.62 Vrms	-2 dBu / 0.62 Vrms
Input headroom for clip, balanced ²⁾	12 dBu / 3.09 Vrms	12 dBu / 3.09 Vrms
Input headroom for clip, RCA ²⁾	6 dBu / 1.55 Vrms	6 dBu / 1.55 Vrms
Connectors and buttons		
Input connectors (per ch.)	3-pin detachable screw terminals, electronically balanced	
Input connectors (ch 1 & 2)	Unbalanced RCA type	
Output connector	2-pin detachable screw terminal	
GPI (power control input) ³⁾	2 channels of voltage sense type 4 pins in a detachable screw terminal. Default functionality is output level for GPI1 and wake up from stand by for GPI2	
GPO (power state output) ³⁾	Contact closure type, 2 pins in a detachable screw terminal. Default for external monitoring of fault/protection/power off	
RS232	Can be controlled and monitored by third parties via RS232 using both the GPI pins	
USB	For firmware update and configuration of the signal processing and altering the default functions of the GPI ports	
High pass filter	This filter is in series with the other filters in the DSP and is controlled with switches on the back. Settings OFF / 50 Hz / 80 Hz	
Level adjustment (per channel)	Front panel potentiometer, detented from -inf to 0 dB	
Processing features		
Input processing block ⁴⁾	4 EQ sections per input	
Mix matrix routing block ⁴⁾	2 in - 1 out mix-matrix controllable from GPI	
Output processing block ⁴⁾	4 EQ sections per output (presets available for many loudspeakers) User adjustable output look ahead limiter ADLC (Adaptive ISO 226 compensation)	
Latency from any input to output	User adjustable from 9.15 to 137 ms	
Power		
Nominal voltage	100 - 240 VAC	
Operating voltage	85 - 265 VAC	
Standby consumption	<1 W	
Mains connector	IEC inlet	
Cooling	One fan, no filter required, front-to-rear airflow, temperature controlled speed Can stay off if the sustained power average stays below 12 W and the surrounding temperature is below 25 degrees C	
Auto mode	The power state is controlled automatically with the audio signal	
Dimensions	W: 216 mm (8.5"), H: 44 mm (1.7"), D: 280 mm (11")	
Weight	1.9 kg (4.2 lbs.)	
Finish	Black aluminum front and black steel chassis	
Approvals	CE, CSA, CCC, PSE, FCC, ENERGY STAR	

Note 1): The peak voltage is 100 V, but the look-ahead limiter ensures that it cannot clip, so in real life use with music or speech it will typically be able to sustain a higher SPL in 100 V applications than 100 V amplifiers with higher peak voltage capability as the amplifier have the capacity to handle peaks way beyond "clip" without sounding harsh.

Note 2): An analog soft limit will be engaged on the input above this level to reduce the clip distortion

Note 3): Can be configured for different functionality via USB

Note 4): DSP settings determined by settings downloaded from the Application Browser software; not configurable on the unit itself.

All specifications are subject to change without notice.

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