

# E 12:2



- ▶ **High power density** – 2 x 600 W in 1U
- ▶ **Certified Energy Star 2.1 compliant**
- ▶ **Flexible** – IntelliDrive delivers similar power per channel at 70 V, 2, 4, 8 and 16 ohms
- ▶ **Asymmetric loading** - Allows “mixing and matching” of loads with different impedances to maximize both overall system efficiency and inventory utilization
- ▶ **IDEEA™ output stage based on patented Class D technology**
- ▶ **High efficiency** – Extremely low power consumption and heat output
- ▶ **Auto-standby function** - with power consumption < 1 W in standby state
- ▶ **Exceptionally low cost of ownership over lifetime**
- ▶ **RSL switch** - Circuit senses rail voltage and optimizes output for instantaneous load conditions
- ▶ **Efficient cooling** – One temperature-controlled fan
- ▶ **Comprehensive circuit protection and fault indication**

Introducing E Series, built around Lab.gruppen’s newest IDEEA, the IntelliDrive Energy Efficient Amplifier. Specifically designed for greater sustainability through “greener” commercial installations, the E Series incorporates the latest advances in Lab.gruppen quality and durability into three powerful, ultra-compact, and highly cost-effective two-channel amplifiers.

## Small in size, huge in benefits

Building on Lab.gruppen’s touring reputation for sonic excellence and rock-solid durability, E Series brings a competitive edge to the installation market by adding ultra-compact size, high operating efficiency, output configuration flexibility, and an unprecedented cost-benefit ratio. At the heart of E Series is IDEEA (IntelliDrive Energy Efficient Amplifier) technology. Based around a patented Class D output stage, IDEEA produces high power levels with very low distortion while drawing minimal mains current.

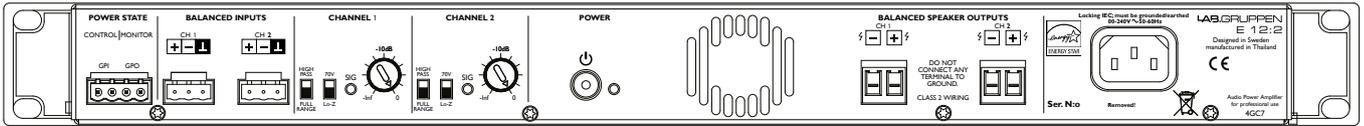
E Series also introduces a proprietary Rail Sensing Limiter (RSL™) which greatly reduces signal clipping, ensuring high quality audio output at all times, with user configurable output thresholds of either Hi-Z (70 V) or Lo-Z (69.3 V peak). The highly innovative RSL switch circuit senses rail voltages and optimizes output for instantaneous load conditions. RSL settings also facilitate asymmetric loading of the channels, to optimize performance and efficiency from each individual unit - allowing the total available output power to be utilized unequally between the channels, and even allowing for mono use, with all power on a single channel. This makes it possible, for example, to drive a small sub on one channel and a number of 70 V distributed ceiling loudspeakers on the other.

## Lab.gruppen performance with Energy Star compliance

Lab.gruppen’s IDEEA architecture facilitates Energy Star 2.1 compliance by combining net operating efficiency of greater than 80% with an auto-power-down feature. After 20 minutes with no input signal present, the amplifier automatically switches to standby mode – reducing power consumption to less than 1 W – and switches back on when an input signal returns. GPIO facilities enable third-party systems to remotely control and monitor power state via contact closure.

## Applications

- **Bars & restaurants**
- **Retail outlets**
- **Malls**
- **Hotels & ballrooms**
- **Conference centers**
- **Museums & galleries**
- **Houses of worship**
- **Theme park installations**
- **Educational establishments**
- **Auditoriums**
- **Performing arts centers**
- **Convention centers**
- **Transport hubs**



## Specifications E 12:2

### General

Number of channels	2
Total output all channels driven	1200 W
Peak output voltage per channel	100 V / 70 Vrms
Max. output current per channel	18 Arms

### Max. Output Power

Per ch. (all ch.'s driven)	
2 ohms (Lo-Z mode)	600 W
4 ohms (Lo-Z mode)	600 W
8 ohms (70 V mode)	600 W
16 ohms (70 V mode)	310 W
70 V (70 V mode)	600 W
8 ohms (Lo-Z mode)	300 W
16 ohms (Lo-Z mode)	150 W

### Performance

THD 20 Hz - 20 kHz for 1 W	<0.1%
THD at 1 kHz and 1 dB below clipping	<0.05%
Signal To Noise Ratio	>112 dBA
Channel separation (Crosstalk) at 1 kHz	>70 dB
Frequency response	2 Hz - 40 kHz
Input impedance	20 kOhm
Common Mode Rejection (CMR)	50 dB
Output impedance	25 mOhm

### Gain, Sensitivity and Limiters

Limit and gain switch (per channel)	2 pos: Lo-Z and 70 V
VPL for 70 V mode	100 V
VPL for Lo-Z mode	69.3 V
Sensitivity for 70 V out in 70 V mode	4 dBu
Sensitivity for full power into 4/8/16 ohms in Lo-Z mode	4 dBu
Gain in 70 V mode	35.2 dBu
Gain in Lo-Z mode	32 dB
Level adjustment (per channel)	Rear panel potentiometer, detented from -inf to 0 dB

### Connectors and switches

Input connectors (per ch.)	3-pin detachable screw terminals, electronically balanced
Output connectors (per ch.)	2-pin detachable screw terminals
High pass filter	Fixed at 35 Hz, switchable per channel
Power control	Can be used to go between standby and ON
GPI (power control input)	Contact closure type, 2-pin detachable screw terminal, controls the power state
GPO (power state output)	Contact closure type, 2-pin detachable screw terminal, for external monitoring of the power state
Cooling	Single fan, front to rear airflow, no filter required, temperature controlled speed

### Power

Nominal voltage	100 - 240 VAC
Operating voltage	70 - 265 VAC
Standby consumption	<1 W
Mains connector	

### Dimensions

W: 483 mm (19"), H: 44 mm (1 U), D: 276 mm (10.9")

### Weight

4.2 kg (9.3 lbs.)

### Finish

Dark grey aluminium front and black steel chassis

### Approvals

CE, PSE, UL 60065, CSA-C22.2 No 60065-03, FCC part 15 Class A, EN 55103-1, EN55103-2, ROHS, Energy Star 2.1

### Warranty

3 years, components and factory workmanship. See full warranty statement.

All specifications are subject to change without notice.

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