



# E 12:2



- ▶ **High power density** – 2 x 600 W in 1U
- ▶ **Certified Energy Star compliant**
- ▶ **Flexible** – IntelliDrive delivers comparable power per channel at 70 V or Low-Z (2, 4 and 8 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 variant**
- ▶ **High efficiency** – Extremely low power consumption and heat output
- ▶ **Auto-standby function** – with power consumption < 1 W in standby state
- ▶ **Exceptionally low lifetime operating costs**
- ▶ **RSL switch** – Innovative circuit senses rail voltage and optimizes output for instantaneous load conditions
- ▶ **Efficient cooling** – One temperature-controlled fan
- ▶ **Comprehensive circuit protection and fault indication**

## E Series, built around Lab.gruppen’s eco-friendly IDEEA: IntelliDrive Energy Efficient Amplifier

Specifically designed for greater sustainability through “greener” commercial installations, E Series incorporates the latest advances in Lab.gruppen quality and durability into a complete line of compact (1U) and highly cost-effective two- and four-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 Lab.gruppen’s IDEEA (IntelliDrive Energy Efficient Amplifier) technology. Based around a patented Class D variant output stage, IDEEA produces high power levels with very low distortion while drawing minimal mains current.

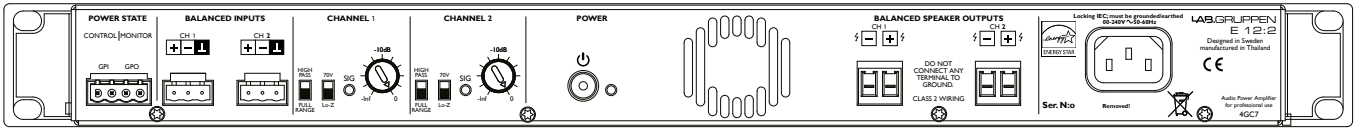
Lab.gruppen’s proprietary Rail Sensing Limiter (RSL™), also exclusive to E Series, greatly reduces signal clipping to ensure high quality audio output at all times. User configurable for Hi-Z (70 V) or Lo-Z, RSL senses rail voltages and optimizes each output for instantaneous load conditions. RSL settings also facilitate asymmetric loading of the channels to optimize performance and efficiency. Total available output power can be allocated among the channels as required by the application. This makes it possible, for example, to drive a small sub on one channel, a number of 70 V ceiling loudspeakers on the second channel.

### Lab.gruppen performance with Energy Star compliance

Lab.gruppen’s IDEEA architecture secures full Energy Star compliance by combining net operating efficiency of greater than 80% with an auto-power-down feature. After 20 minutes with no input signal, the amplifier automatically switches to standby mode – with consumption of 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

<b>General</b>	
Number of channels	2
Total output all channels driven	1200 W
Peak output voltage per channel	100 V / 70 Vrms
Max. output current	18 Arms
<b>Max. Output Power</b> (all ch.'s driven)	
2 ohms	600 W
4 ohms	600 W
8 ohms	600 W (requires the "70 V" mode for the RSL, "Lo-Z" gives 300 W)
16 ohms	310 W (requires the "70 V" mode for the RSL, "Lo-Z" gives 150 W)
70 V	600 W
100 V	Can deliver 600 W to a 100 V load tapped at 1200 W
<b>Performance</b>	
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
<b>Gain, Sensitivity and Limiters</b>	
Limit and gain switch defining limit and gain (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 stated power into 4 Ohm in Lo-Z mode	4 dBu
Sensitivity for 70.7 V out in 70 V mode	4 dBu
Sensitivity for stated power into 2 Ohm in Lo-Z mode	1 dBu
Sensitivity for stated power into 8 Ohm in 70 V mode	3.8 dBu
Sensitivity for stated power into 16 Ohm in 70 V mode	4 dBu
Gain in 70 V mode	35.2 dB
Gain in Lo-Z mode	32 dB
Level adjustment (per channel)	Rear panel potentiometer, from -inf to 0 dB
<b>Connectors and switches</b>	
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 50 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, temperature controlled speed
<b>Power</b>	
Nominal voltage	100 - 240 VAC
Operating voltage	70 - 265 VAC
Standby consumption	<1 W
Mains connector	IEC inlet
<b>Dimensions</b>	
	W: 483 mm (19"), H: 44 mm (1 U), D: 276 mm (10.9")
<b>Weight</b>	
	4.2 kg (9.3 lbs)
<b>Finish</b>	
	Dark grey aluminium front and black steel chassis
<b>Approvals</b>	
	CE, RoHS, WEEE, UL 60065, CSA C22.2 No 60065, FCC part 15 Subpart B Class A, PSE, CCC, Energy Star

All specifications are subject to change without notice.

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