

ELV Class-D High-Efficiency Power Amplifiers

Compact, Efficient, Powerful Amplification for Pro PA Systems



ELV's Class-D digital power amplifiers deliver high-fidelity audio power for 100V line Public Address systems in an incredibly efficient and compact 1U package. Available in 1, 2, or 4 channel configurations with power outputs from 240W to 500W per channel, these amplifiers offer exceptional performance and flexibility. Their high efficiency (up to 85%) reduces energy consumption and heat generation, while built-in protection circuits and DC backup power input ensure reliable operation.



Class-D Amplifier

Key Features

- **Multiple Channel Options:** Choose 1, 2, or 4 channels per unit to match system zoning and density needs.
- **Flexible Power Ratings:** 240W, 350W, or 500W per channel options provide precise power matching for speaker loads.
- **Direct 100V Output:** Transformer-less design provides clean 100V (or 4-16 Ohm) speaker outputs.
- **Compact 1U Design:** Saves valuable rack space, regardless of channel count or power output.
- **High Efficiency Class-D:** Up to 85% efficiency means less power waste, lower running costs, and reduced cooling requirements compared to traditional amplifiers.
- **Reliable Protection:** Includes short-circuit, overload, over-voltage, and overheating protection per channel.
- **DC Backup Power:** 24V DC input allows for seamless operation during AC power outages when connected to a battery backup system.
- **Power Saving Standby:** Auto-standby feature reduces power consumption when no signal is present.
- **Balanced Inputs:** Professional balanced line-level inputs for noise rejection over long cable runs.

Applications

Ideal power amplification stage for medium to large scale PA systems in analog or IP network designs, including airports, stadiums, shopping malls, office buildings, campuses, and industrial facilities demanding high power, reliability, and efficiency.

System Compatibility

- **Pre-Amps/Mixers:** Compatible with line-level outputs from mixers or pre-amplifiers.
- **IP Systems:** Ideal power stage when driven by line-level outputs from IP Decoders (e.g., system incorporating ST2212 functionality) or IP Controllers (e.g., IP2100/8).
- **Fault Monitoring:** Use with AF8000 for automatic backup and line supervision (ensure pilot tone compatibility if needed).
- **Speakers:** Drives any combination of ELV 100V speakers up to the rated power per channel.

Technical Specifications

Specifications*	Class-D Digital Amplifiers
Description	Class-D High-Efficiency Power Amplifiers
Technology	Class-D Digital, Transformer-less
Efficiency	Up to 85%
Output Voltage	100V (Constant Voltage), 4-16 Ω (Low-Z)
Input Sensitivity	0.775V / 0dBu (Balanced)
Frequency Response	20Hz-20kHz (Filter Off), 70Hz-10kHz (Filter On)
S/N Ratio	≥ 85 dB
THD	$\leq 0.1\%$ (@ 1kHz, 100W)
Protection	Short Circuit, Overload, Overheat, Over-voltage
Power Supply	~230V 50Hz AC and 24V DC
Rack Height	1U
Dimensions	482 x 420 x 44 mm

*Specifications are subject to change without prior notice

Ordering Informations

Model No.	Description
A-1240D	1 channel;240W
A-1350D	1 channel;350W
A-1500D	1 channel;500W
A-2240D	2 channels;2 X 240W
A-2350D	2 channels;2 X 350W
A-2500D	2 channels;2 X 500W
A-4240D	4 channels;4 X 240W
A-4350D	4 channels;4 X 350W
A-4500D	4 channels;4 X 500W