DA8.4

4-Channel High-Performance Class-D Amplifier



Applications

- High-output full-range loudspeakers
- Subwoofer amplification
- Touring and rental production systems
- Nightclubs, DJs, and live venues
- Houses of worship and performance spaces
- Small to mid-size venues and mobile stages

Overview

The Sound Barrier DA8.4 is a high-power 4-channel Class-D amplifier engineered for demanding professional audio applications requiring high output, efficiency, and reliability.

Designed with advanced switching power supply and active Power Factor Correction (PFC), the DA8.4 delivers exceptional performance while maintaining high efficiency and reduced thermal load. Its multi-channel design provides flexible system configuration, making it ideal for powering full-range loudspeakers and subwoofer systems in both touring and installed environments.

With selectable gain settings, multiple operating modes (Stereo, Bridge, Mono), and comprehensive protection circuitry, the DA8.4 ensures stable operation even under demanding conditions.

Features

High Output Performance
- High power output for demanding systems
- Ideal for full-range loudspeakers and subwoofers
- Stable operation across multiple impedance loads

Efficient Class-D Design
- Advanced Class-D topology with >80% efficiency
- Reduced heat generation and lower operating costs
- Lightweight compared to traditional amplifiers

Advanced Power Supply
- 100–240V universal power input
- Active Power Factor Correction (PFC)
- Stable global operation with improved energy efficiency

Flexible System Integration
- Stereo, Bridge, and Mono operating modes
- Selectable gain settings (29dB – 38dB)
- Compatible with a wide range of signal sources and DSP systems

Tour-Ready Construction
- Rugged chassis for touring and installation
- Ideal for mobile racks and fixed installs

Cooling & Reliability
- Front-to-rear airflow cooling system
- Temperature-controlled fans
- Thermal protection with auto-recovery

Comprehensive Protection
- Over-temperature protection
- DC protection
- Short circuit protection
- Overload limiter
- Undervoltage protection

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4-Channel High-Performance Class-D Amplifier

Channel Handling	
Number of output channels	4 x Speakon Type (NL4)
Number of input channels	4 x Balanced XLR inputs
Operating modes	Stereo / Mono / Bridge
Bridgeable output channels	Per Channel Pair (2 Bridged Pairs Possible)
Minimum load: Stereo / Mono	2Ω minimum
Minimum load: Bridge	4Ω minimum
Audio	
Gain	Selectable 38dB / 35dB / 32dB / 29dB
Input sensitivity at 38dB gain	1.13V RMS
Input sensitivity at 35dB gain	1.59V RMS
Input sensitivity at 32dB gain	2.25V RMS
Input sensitivity at 29dB gain	3.17V RMS
Default gain	typical: 0.01% (10% rated power, 8Ω)
Damping factor @ 8Ω	> 5000 (8Ω, 20Hz–200Hz)
Frequency response	Typical: +0 / -0.5dB (10% rated power, 20Hz–20kHz, 8Ω)
Crosstalk	≥90dB (20Hz–1kHz, below rated power)
THD+N	Typical: 0.01% (10% rated power, 8Ω)
Input impedance	20kΩ balanced / 10kΩ unbalanced
Signal LED threshold	Green when input signal is greater than -32dB
Clip / limiter indication	Yellow when output distortion is >1% or power is compressed
Output Stage	
Rated output power @ 8Ω Stereo	4 x 1350W
Rated output power @ 4Ω Stereo	4 x 2000W
Rated output power @ 2Ω Stereo	4 x 2800W
Rated output power @ 16Ω Bridge	2 x 2500W
Rated output power @ 8Ω Bridge	2 x 4000W
Rated output power @ 4Ω Bridge	2 x 5500W
Output RMS voltage	103.9V RMS
Output connector type	Speakon Type (NL4)
AC Mains Power	
Nominal AC input (±10%)	100–240 V @ 50/60Hz
Power supply design	Universal Switching Power Supply
Power factor correction	Active PFC (Power Factor Correction)
Power cord gauge	14 AWG
Idle consumption / standby input power	160W

Power Consumption & Heat	
Standby line current	0.7A @ 220V / 1.5A @ 110V
Standby power in / out / dissipated	160.0W / 0.0W / 160.0W
1/8 power @ 8Ω/ch line current	3.2A @ 220V / 6.3A @ 110V
1/8 power @ 8Ω/ch power in / out / dissipated	694.4W / 500.0W / 194.4W
1/8 power @ 4Ω/ch line current	5.2A @ 220V / 10.4A @ 110V
1/8 power @ 4Ω/ch power in / out / dissipated	1148.6W / 850.0W / 298.6W
1/3 power @ 8Ω/ch line current	7.5A @ 220V / 15.0A @ 110V
1/3 power @ 8Ω/ch power in / out / dissipated	1646.1W / 1333.3W / 312.8W
1/3 power @ 4Ω/ch line current	12.6A @ 220V / 25.1A @ 110V
1/3 power @ 4Ω/ch power in / out / dissipated	2764.2W / 2266.7W / 497.6W
Thermal	
Operating temperature	32°F – 104°F (0°C – 40°C)
Cooling	Front-to-rear Airflow
Fan control	Temperature-controlled fan
Thermal limiting threshold	185°F (85°C)
Thermal shutdown threshold	194°F (90°C)
Side clearance requirement	2.0 in (5cm)
Rear clearance requirement	3.9 in (10cm)
Construction	
Dimensions (W x H x D)	19.02 x 1.77 x 14.57 in (483 x 45 x 370 mm)
Rack width	19.02 in (483 mm)
Height	1.77 in (45 mm)
Depth	14.57 in (370 mm)
Rack space	1U
Net weight	20.9 lb (9.5 kg)
Included accessories	Power cord, user manual, 4 rubber feet
Signal-sensitive equipment spacing	7.9 in (20cm) minimum preferred
Protection circuits	Under voltage, DC, over temperature, overload, short circuit
Limiter functions	Over-temperature limiter, overload limiter, short limiter
PWR LED green	Power switch on
PWR LED yellow	Temperature limiter active
SIG LED green	Input signal greater than -32dB
SIG LED yellow	Output distortion >1% or power compression
SIG LED red	Protection condition

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