

DDP200A 2x100W Class D Power Amplifier



Product Overview

The Datalux DDP200A Dual Channel Class D Power Amplifier is a compact, high-performance solution designed for professional audio installations where reliability, efficiency, and clear sound reproduction are critical. Delivering 100 watts per channel into 4 Ω or 8 Ω loads, this amplifier offers exceptional sonic accuracy across the full 20 Hz to 20 kHz frequency range, with a signal-to-noise ratio of 100 dB or better.

Its Class D architecture ensures maximum power efficiency with minimal heat output, enabling a silent convection-cooled design that requires no internal fans—ideal for noise-sensitive environments such as conference rooms, lecture halls, and control centers. The unit supports both balanced and unbalanced inputs, making it compatible with a wide variety of audio sources, and includes bridge mode operation for higher-power single-channel applications.

Advanced protection circuitry guards against clipping, overheating, short circuits, and DC faults, while front-panel LEDs provide at-a-glance monitoring of limiter, protect, temperature, power, and signal status. The intelligent standby mode automatically reduces power consumption during inactivity and instantly restores full performance upon signal detection.

Features

- ✓ Dual-channel operation with independent amplification per channel
- ✓ 100 W RMS/ch @ 4 Ω or 8 Ω , bridge mode up to 200 W RMS.
- ✓ Class D high-efficiency, low-heat design with convection cooling.
- ✓ Two balanced/unbalanced line-level inputs.
- ✓ 20 Hz–20 kHz frequency response, ≥ 100 dB SNR, $\leq 0.1\%$ THD+N.
- ✓ Protection: clip limiting, thermal, short circuit, DC fault, over-voltage.
- ✓ Auto standby after 25 min; instant wake on signal.
- ✓ Front LEDs for limiter/protect, over-temp, power, and signal.

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Technical Parameter

Specification	Details
General Description	Two-channel Class D professional power amplifier, delivering 100 W RMS per channel into 4 Ω or 8 Ω loads. High-efficiency, low-heat design ideal for conference rooms, auditoriums, and AV integration systems.
Amplifier Type	Class D, high-efficiency switching design with low idle power consumption.
Channels	2 independent audio channels with isolated ground reference.
Output Power	100 W RMS per channel @ 4 Ω or 8 Ω , both channels driven.
Bridge Mode (BTL)	Supports bridged mono operation with up to 200 W RMS output.
Input Type	Two balanced or unbalanced line-level inputs, electronically balanced.
Input Connector	3-pin Euroblock (5 mm pitch) or XLR/TRS combo connectors.
Input Impedance	≥ 20 k Ω balanced, ≥ 10 k Ω unbalanced.
Gain	Selectable gain settings: 26 dB, 32 dB, 36 dB.
Output Type	Two channels, 4 Ω or 8 Ω load compatible.
Output Connector	2-pin Euroblock or binding posts (depending on model).
Frequency Response	20 Hz – 20 kHz (± 1 dB).
Signal-to-Noise Ratio	≥ 100 dB (A-weighted).
THD + Noise	$\leq 0.05\%$ @ 1 kHz, $\leq 0.1\%$ full range.
Damping Factor	≥ 200 @ 8 Ω , 1 kHz.
Crosstalk	≥ 70 dB @ 1 kHz between channels.
Protection Features	Clip limiting, thermal shutdown, short-circuit protection, DC fault protection, inrush current limiting, and over-voltage protection.
Indicators	Limiter/Protect LED, Over Temperature LED, Power LED, Signal Presence LED per channel.
Standby Mode	Auto-standby after 25 min of no signal; auto-wake in ≤ 1 s upon signal detection.
Cooling	Convection-cooled, fanless design, sealed chassis (no vents) for silent operation and dust ingress protection.
Power Supply	Universal AC 100 – 240 V, 50/60 Hz, high-efficiency SMPS with PFC (Power Factor Correction).
Power Consumption	< 20 W idle, ≤ 250 W at full load.
Mounting Options	Half-rack or full-rack mountable, wall/shelf mount brackets included.
Rack Space	1U height in standard 19" rack (with adapter kit).
Dimensions (W×D×H)	Approx. 220 mm × 280 mm × 44 mm (1U height).
Weight	Approx. 2 – 3 kg.
Operating Temperature	0 °C – 55 °C.
Humidity	10 % – 90 % non-condensing.
Compliance	CE, RoHS, FCC