

Product Guide**A 4314** 4x240W Class-D Public Address Power Amplifier

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Overview

This compact four channel Class-D design amplifier provides four independent 240W power amplifiers built into a single 1RU 19" rack mount chassis. It is ideal for use in environments where four individual program sources are required in different building zones. Ideal for use in hotels, function centres, shopping malls and commercial offices.

The unique feature of the Class-D design is the significant reduction in power consumption and heat generation due to the switchmode power supply design employed. They utilise active power factor correction (APFC) switch mode power technology allowing an efficiency rating of 85%. The result of which is a much cooler running amplifier (<55°C), offering a long life span and significant power savings for a reduced environmental impact.

Each amplifier is provided with screw terminal connections for balanced input from the source, 100V line output and an RJ45 port for remote control functions. The RJ45 port allows remote power control, volume control and status monitoring. Each channel amplifier is provided with front panel level controls and indicators. A dedicated 24V DC power battery backup input is also provided for each channel.

All amplifiers are also protected against short circuit, high temperature and overload conditions. Importantly these protections are dedicated for each channel, so that if a fault occurs on one amplifier, the others are unaffected.

Key Features

- ✓ 85% efficient class-D power performance.
- ✓ Low power consumption & heat generation.
- ✓ Compact 1RU case housing four individual amplifiers.
- ✓ Individual dedicated protection circuitry.
- ✓ Individual cooling systems for each channel.
- ✓ LED indicators for signal, peak, protection and power.
- ✓ Constant 100V floating output per channel (ie no reference to earth).
- ✓ Compatible with Redback line monitoring equipment.
- ✓ 24V DC battery backup power (per channel).
- ✓ 240V AC operation.
- ✓ Remote control on/off switching function.
- ✓ In-built bandpass filter for 80Hz and 16KHz signals.
- ✓ Built-in short circuit, overload, high temperature protection.
- ✓ 2 year warranty.

About Redback® Class D Amplifiers

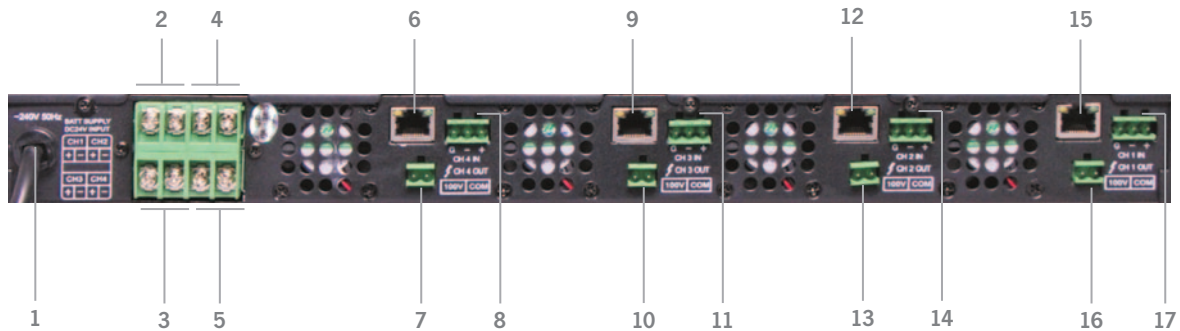
Redback have sourced this range of economical high performance amplifiers from one of the worlds leading public address equipment manufacturers. They are designed to cater for the requirements of modern multi zone public address installations and have been thoroughly tested in house to ensure they meet our specifications.

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Rear Panel



1	240V AC input	7	Ch 4 100V output	13	Ch 2 100V output
2	Ch 1 24V DC battery	8	Ch 4 Bal. input (screw terminals)	14	Ch 2 Bal. input (screw terminals)
3	Ch 3 24V DC battery	9	Ch 3 RJ45 control port	15	Ch 1 RJ45 control port
4	Ch 2 24V DC battery	10	Ch 3 100V output	16	Ch 1 100V output
5	Ch 4 24V DC battery	11	Ch 3 Bal. input (screw terminals)	17	Ch 1 Bal. input (screw terminals)
6	Ch 4 RJ45 control port	12	Ch 2 RJ45 control port		

Specifications

Electrical

Power output:	4 x 240W RMS
Speaker output:	100V constant voltage
Input sensitivity:	±385mV/20KΩ balanced
Frequency response:	80Hz - 18KHz (+1dB,-3dB)
Signal to noise ratio:	≥85dB
Total harmonic distortion:	≤0.5% at 1KHz (1/3 rated power)
Power consumption:	4 x 288W
Power supply:	240V AC (50Hz) or 24V DC backup
Protection:	High temp, overload & short circuit

Controls

Controls:	Remote power control, volume control & status monitor
Indicators:	Signal, peak, protection & power

Mechanical

Dimensions:	484W x 390D x 44Hmm
Weight:	9kg

Connections

Inputs	Input 1
	3 Way screw terminal. (balanced).
Outputs	Speakers
	Screw terminals for 100V line.

Architect Specifications

The amplifier unit shall consist of 4 independent amplifiers housed in the same chassis. Each amplifier shall have a power output of 240 Watts RMS. Each amplifier shall have a balanced line input via screw terminal. Frequency response shall be 80Hz – 18KHz (-3dB).

A separate volume control for each amplifier shall be positioned on the front panel. The front panel shall have, for each amplifier, an LED to show signal presence, peak output and protection conditions.

The unit shall operate from 240V AC or 24V DC. Each amplifier shall have be capable of delivering full power of 100V RMS into a 42 ohm (240W) inductive load with a signal to noise ratio of less than 85dB below rated output. The output power of each amplifier shall be peak limited.

Individual speaker outputs shall be 100V provided via screw terminals for each amplifier.

The amplifier shall be housed in a high quality 1RU metal chassis suitable for rack mounting.

The amplifier shall be a REDBACK model A 4314.