

Voice Alarm

Direct Drive VA Amplifier with Battery Charger 4XD125B

The 4-channel Direct Drive Amplifier is a rack mountable amplifier unit providing a 4 x 125W power outputs.

The 1U 19inch rack mountable direct drive 4 channel voice alarm amplifier unit provides 4 x 125W power output. The unit can also be configured to provide 2 x 250W power output. Each channel provides an independent 100V audio output.



The unit has an integral battery charger for charging 24V lead acid batteries of up to 65Ah used to provide standby supply in the event of mains failure. It is designed for direct integration and is fully compatible with the Honeywell Voice Alarm System DOM module and can also be used with other VA/PA systems.

Key Features:

- 4-channel Direct-Drive amplifier for voice alarm application that utilise industry standard 100V speakers
- High efficiency (80% typical) Class D Amplifiers
- Delivers maximum possible power under any overload or overdrive condition to maintain intelligibility of voice messages
- Integrated temperature compensated battery charger Certified to EN54 Part 4, capable of charging up to 65Ah battery pack
- Compliant with IEC BS EN 60268-3, 55013 55020 norms
- Microcontroller based extensive self monitoring and control
- Protection against overload and wiring short
- Protection against overheating
- Temperature management with variable speed fan assisted cooling
- System control and monitoring via DOM module or other VA/PA system control module
- Full status reporting, diagnostics and control over CAN bus

Benefits

- EN54-16 certified
- Configurable outputs 4 x 125W or 2 x 250W
- 100V direct output from amplifier removes the need for traditional step up transformer
- Only 1U rack space used
- On board EN54-4 compliant battery charger
- Reduced weight compared to traditional amplifiers
- Reduced heat output
- Reduced power consumption
- Increases rack capacity due to 1U rack space taken
- Two independent 24V DC power outputs to power VA/PA controller or accessories

General indicators

- Mains Power (green LED)
- CPU Status (green LED)
- System Fault (yellow LED)
- Battery Power (yellow LED)

Channel indicators

- Power (green LED)
- High (green LED)
- Low (green LED)
- Clip (yellow LED)
- Error (yellow LED)

100V outputs

There are four 100V outputs available at the connector marked 'SPK 1/2 OUT' and 'SPK 3/4 OUT' on the rear of the unit. These outputs are for connection to the DOM module or other VA/PA system control module.

Extension interface

The 'EXTENSION INTERFACE' provides 'Common Fault' output by voltage free contacts. External input is for system fault reset and automatic fans test. CAN-bus interface is for remote control and monitoring supporting DeviceNet communication protocol.

Control Interface

The control inputs are via a connector marked 'CONTROL I/F' that can be connected to the DOM module or other VA/PA controller.

Mains supply

The mains power to the unit is via an IEC connector having an integral protection fuse.

External battery supply

The external batteries connect to the unit at the 'BATT' connector and are charged by the integral temperature compensated charger. The fully monitored 24V standby supply is used in the event of mains supply failure.

A leaded temperature sensor connects to the 'BATT TEMP' connector, with the sensor positioned in between the batteries to monitor the temperature of the external batteries for automatic charge voltage adjustment.

Technical Specifications

SPECIFICATION	
Output power (mains powered)	4 x 125W / channel into a load of 80Ω
Output power (battery powered)	2 x 250W / channel into a load of 40Ω
Weight (approximate)	9.05Kg
Heat dissipation (idle) Mains powered	60W max.
Battery powered (channels enabled)	21W max.
Battery powered (channels disabled)	5W max.
Mains fuse	F6,3AH250V
Nominal mains voltage	230V AC 50 / 60Hz +10% to -15%
Battery capacity and type	Valve regulated lead-acid battery: 38Ah min. 65Ah max.
Battery operating voltage range	21,5V DC to 28,5V DC
Battery charger current limit	3.4A
Battery source impedance	0.2Ω max
Overall dimensions in mm	45 height x 483 width x 402 deep
Colour	RAL 7016 (Fine texture)
Ambient operating temperature	-5°C to +55°C
Storage temperature	-10°C to +55°C
Relative humidity	Up to 93% (non condensing)
Air flow direction	from front to rear of the amplifier unit
Function	Class D, transformerless 100V outputs
Frequency response at the rated power	20Hz to 22KHz ± 3dB
Distortion at the rated power (resistive load)	< 0,3% THD at 1kHz sine wave
Signal to noise ratio at rated power	90dB (A - weighted)
Maximum load capacitance	200nF #
Channel separation	> 75dB
Voltage gain	42dB
Input sensitivity	0dBu for rated output power
Input impedance (balanced)	20KΩ
Efficiency at a maximum load	80% typical (Battery powered)
Self-oscillation frequency at idle	320kHz (± 20kHz)
Overload protection	Protected against short-circuit or output overload
Thermal protection	Protected against overheating by temperature controlled fans~

Excessive load capacitance may result in a degradation in performance.

~ Excessive temperatures may result in the amplifier temporarily reducing the output level until the normal operating temperature is achieved.

DESCRIPTION	ORDER CODES
Direct Drive VA Amplifier with Battery Charger 4XD125B	580242

Honeywell Life Safety Systems

Tel: +44 (0) 116 246 2000
Fax: +44 (0) 116 246 2300
Email: ukorders@honeywell.com
140 Waterside Road
Hamilton Industrial Park
Leicester
LE5 1TN

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