



## V12a Hearing Loop Driver

V12a

Our highly efficient and compact V12a is a constant current, dual output hearing loop driver, with integral phase shifter for phased array configuration. The V12a is suitable for small and medium sized facilities and venues.

It has Class-D amplifier output stages and an audio subsystem built around an advanced DSP core. Combined with a powerful CPU to ensure peak performance, the V12a uses cutting edge technology proven in the pro audio world to achieve life-like speech and first-class music reproduction.

### Features

- DSP controlled automatic gain control and high frequency compensation for metal loss
- 2 X 90° phase shifted (DSP controlled) Class-D amplifier output stages capable of delivering 5A<sub>RMS</sub> @ >12V<sub>RMS</sub>
- Ultra-efficient power utilisation
- True constant current output stage
- Simple user interface
- Backlit LCD display
- Sleep mode
- Continuous self-testing
- Integrated protection circuits with temperature, voltage, short circuit and DC detection
- Compact half-width 1U chassis (compatible 6U Rack Cabinet available upon request)

### Applications

Suitable for small and medium sized facilities, such as:

- Meeting rooms
- Classrooms
- Care & nursing rooms
- Waiting rooms
- Lecture halls

### Voltage and Current

- >12 VRMS @ 5A RMS

### Standards

- BS EN 55103-1: 2009 (EMC emissions)
- BS EN 55103-2: 2009 (EMC immunity)
- FCC class "B" EMC (emissions)
- ICES-003
- IEC 60118-4 (in correct installations)
- IEC 62489-1

### Accessories

- Single V-Series Mounting Bracket [MBR-V1]
- Dual V-Series Mounting Shelf [MBR-V2]
- Blanking Plate for Dual V-Series Mounting Shelf [MBR-VBLANK]
- 6U Rack Cabinet [IL-AC-RACK-19]

## Physical Data



Dimensions	Height – 42mm (1.65") Width – 198mm (7.80") Depth – 132mm (5.20") [150mm (5.90") including XLR and control knob]
Weight	<1kg (2.20lbs)
Construction	Mild Steel
Finish	Black Powder Coated

## Technical Data

Power	100W 24Vdc 4.17A via External PSU (PS-60) Class 6 External PSU (100V -240V AC 50Hz-60Hz)	
Inputs	1 X Line XLR or 3.81mm Euro-block [optimised for -10dBV to 0dBv]	
	1 X Microphone (12V phantom power via 680Ω) [optimised for levels above -45dBv]	
Loop Output Characteristics	Output Voltage	12Vrms (33.94Vpk-pk) @ 5Arms (14.14Apk-pk)*
	Output Current	5Arms (14.14Apk-pk) up to 300 seconds
	Loop Connector	5.08mm Euro-block
Audio System	Frequency Response	80Hz to 6.5kHz
	Distortion	THD+N <0.3% (-50.5dB) Full current both outputs driven
	AGC	Peak detecting
	HF Comp	7 optimised stages
Display & Control	Display	LED Backlit LCD display
	Control	Single rotary control
Fault Monitoring and Protection	Main Display	Open circuit loop (DCR measurement)
		Loop ground fault
	Front Panel LED	Output voltage clipping
	Cooling	Internal heatsinks with thermal protection

\*Note 1: Z=2.4Ω (212uH +1.096Ω @ 1.6kHz), Note 2: 1% (-40dB) distortion)