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# **V34a PRO Hearing Loop Driver**

Our highly efficient and powerful V34a PRO is a constant current hearing loop driver with dual output for phased array. It is designed for large facilities and venues.

It has a Class-D amplifier output stage and an audio subsystem built around advanced digital systems including an ARM Cortex processor and dual DSPs. Combined with a powerful CPU to ensure peak performance, the V34a PRO provides self-monitoring and email alerts, remote setup over local area networks, guided hearing loop setup to make installation simple, and excellent speech and music reproduction.

#### **Features**

- Inbuilt guided hearing loop setup utilising an integral test signal generator
- Intelligent self-monitoring system supplies status emails on changes to driver functions
- Dual-DSP controlled automatic gain control and high frequency compensation for metal loss
- Class-D amplifier output stage capable of delivering 12ARMS @ >34VRMS
- Highly-rated custom heat-sinks and active cooling
- Integrated universal switch mode power supplies provide ultra-efficient power utilisation (up to 90% efficient)
- Constant current output stage
- Adjustable audio time delay for large distance audio syncing
- Intuitive and sleek user interface on a full colour LCD
- Adjust both drive and loop output levels using an embedded LAN service, minimizing installation time
- Settings/profiles saved to a USB storage device
- Continuous self-testing
- Integrated protection circuits with temperature, voltage, short circuit and DC detection
- Full width 1U 19" rack mount

V34a-UK / V34a-EU / V34a-AUS / V34a-USI

## **Applications**

Suitable for large facilities and venues such as:

- Theatres
- Concert halls
- Places of worship
- Sports arenas
- Conference facilities

### Voltage and Current

• 2 x 34 VRMS @ 12A RMS

#### **Standards**

- EN 62368-1
- UL 62368-1
- EN 55032 EMC
- EN 55035 EMC

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## **Physical Data**

Dimensions	Height – 44mm (1.73") Width – 433mm (17.04") Depth – 301mm (11.85")	
Construction	Mild Steel	
Finish	Black Powder Coated	



## **Technical Data**

Audio Inputs  Loop Outputs	2 X line/microphone inputs (switchable) XLR or Euroblock	Line (optimised for -10dBV to 0dBv)	
		Microphone (12V phantom power via $680\Omega$ optimised for levels above -45dBv)	
	Outputs Voltage	2 x 34Vrms* (96.1V pk-pk)	
	Output Current	2 x 12Arms @ 1KHz* (33.94A) pk-pk >1200 seconds (20 minutes)	
	Loop Connector	2 x NL4	
Audio System	Frequency Response	100Hz to 5KHz	
	Distortion	THD<1% (-40dB) full current both channels driven	
	Automatic Gain Control	DSP controlled, peak detecting	
	High Frequency Compensation	7 DSP controlled, optimised stages	
	Audio Signal Delay	10ms to 40ms	
Display	Backlit TFT 480 x 128 pixels (95mm x 25mm)		
Control	Single Rotary Push Control		
Mains Input	Voltage	100V-120V /200V-240V AC (universal auto switching with PFC)	
	Frequency	50Hz/60Hz	
	Connection	IEC	
Cooling	Custom heatsink with temperature-controlled fan		

\*Z= 2.83 $\Omega$  @ 1.6KHz (250.63uH +1.294 $\Omega$ ) equivalent to 192.85m of 25mm flat copper cable.

## **Driver Area Coverage**

	Area		
	1:1	1:2	1:3
Phased array (no metal loss)	1521.00m <sup>2</sup>	1740.50m <sup>2</sup>	1680.33m²
Phased array (medium metal loss)	676.00m <sup>2</sup>	840.50m <sup>2</sup>	867.00m <sup>2</sup>

All phased array loop areas calculated under the following conditions: Area at maximum driver current without voltage clipping at 1.6KHz \* 3 metre segment width \* calculated with 25mm x 0.1mm flat copper tape \* loop cable installed on floor \* listening plane 1.2m \* medium metal loss = 6dB

#### **Rear Connections**

