INCA 500

4 × 125 W @ 4–8 ? / 2 × 250 W @ 70/100 V, 4-CHANNEL AMPLIFIER, HALF-RACK WIDTH, INTEGRATED DSP

The Inca 500 is a four-channel, half-rack-width amplifier designed to provide flexible operation in fixed audio installations, supporting both low-impedance (Lo-Z) applications and 70/100 V constant-voltage (Hi-Z) systems. Featuring a universal 100–240 V power supply with integrated PFC and a compact 1U design, it easily integrates into AV installations, distributed audio systems, and commercial and hospitality environments. It delivers 125 W per channel into low-impedance loads (4–8 ?), or 250 W per channel across two Hi-Z outputs, for a total system power of 500 W.

The amplifier features an integrated full-matrix DSP, configurable via a web browser interface, as well as built-in Wi-Fi connectivity for convenient system management and configuration. Its Automatic Power Sharing function also dynamically distributes the available power between channel pairs, optimising power delivery to meet the system's requirements.

2.png

70V-100V Line DSP

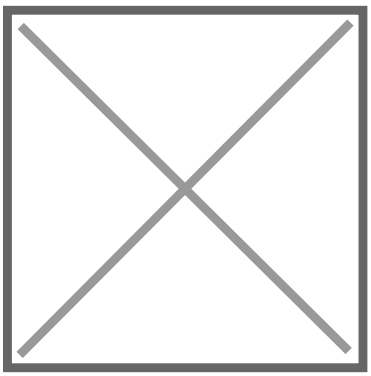
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HIGHLIGHTS

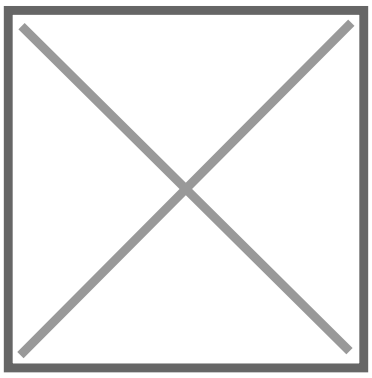


COMPACT INSTALLATION AMPLIFICATION

Housed in a space-saving 1U half-rack chassis with flexible wall, desktop, or rack mounting options, the Inca 500 delivers 500 W of total system power across 4 channels. It seamlessly drives both low-impedance (4/8 ?) and 70V/100V high-impedance distributed audio systems within a single unit, utilizing automatic power sharing to dynamically optimize output distribution for asymmetric loads.

EMBEDDED FULL-MATRIX DSP WITH VOID ACOUSTICS PRESETS

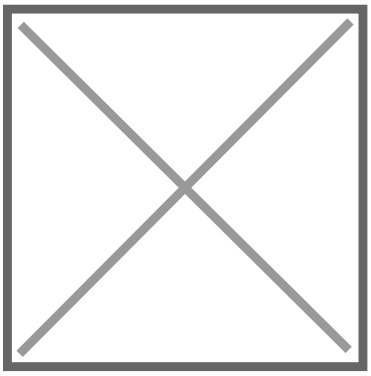
Equipped with an onboard full-matrix DSP pre-loaded with the official Void Acoustics preset library, it ensures precision loudspeaker tuning and reliable system protection right out of the box. Leader/Follower functionality via S/PDIF linking also allows effortless expansion across multi-amplifier setups.



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EFFORTLESS SETUP AND BROWSER-BASED WIRELESS CONTROL

Featuring built-in Wi-Fi and a unified web interface, system configuration and monitoring can be handled directly via any standard web browser without dedicated software. Integrated GPIO ports and customizable user controls further streamline daily operation across demanding commercial and hospitality environments.

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PRODUCT DETAILS

KEY FEATURES

- Half-rack width 1 RU format, ideal for compact and flexible installations
- Full matrix DSP embedded and controlled via Web Browser
- Integrated GPIO control
- Universal PSU with PFC and low consumption, under 0.5 W in standby mode
- Quick configuration and reliable operation across a wide range of installation environments
- Automatic power sharing to optimise power for asymmetric loads
- Built-in Wi-Fi for fast installation
- Compatibility with 70/100 V Hi-Z or low impedance loads

SPECIFICATIONS

Form Factor	1U Half-rack width
Output Channels (Lo-Z)	4 channels
Output Channels (Hi-Z)	2 channels
Output Circuitry	UMAC™ Class D (full bandwidth PWM modulator with ultra-low distortion)
Total System Power	500 W
Output Power per Channel @ 4? / 8? (Lo-Z)	4 x 125 W (1% THD @ 120 Vac / 230 Vac)
Output Power per Channel (@ 70/100V Hi-Z)	2 x 250 W (100V line mode @ -1 dB ? 90 V)
Automatic Powershare (up to)	2 x 250 W (dynamic sharing across channel pairs Ch 1-2 and Ch 3-4)
Output Voltage	45 Vrms (S.E) / 70/100V (Hi-Z)

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Frequency Response	20 Hz – 20 kHz (+0/-0.8 dB into 8 ? load, 3 dB below rated power)
Signal-To-Noise Ratio (SNR)	> 106 dB (A-weighted, 20 Hz – 20 kHz, 8 ? load)
Total Harmonic Distortion (THD+N typical)	< 0.05% (20 Hz – 20 kHz, 8 ? load, 3 dB below rated power)
Propagation Latency (Analogue IN -> Analogue OUT)	1177 µs
Propagation Latency (Analogue IN -> S/PDIF OUT)	458 µs
Propagation Latency (S/PDIF IN -> Analogue OUT)	1833 µs
Propagation Latency (S/PDIF IN -> S/PDIF OUT)	1104 µs
Analogue Inputs	4 balanced (Euroblock) and unbalanced (RCA Phono) channels connected in parallel
Selectable Input Sensitivity	+14 dBu, +4 dBu (default), -10 dBu, Dynamic Microphone
Maximum Input Level	+24 dBu (without clipping)
Digital Input	1 x S/PDIF stereo (RCA Phono connector)
Digital Output	1 x S/PDIF stereo (RCA Phono, default level -10 dB for daisy-chaining)
GPIO Control Interface	Euroblock (assignable for remote volume control, standby, mute, 12V trigger)
Network and Control Management	Ethernet RJ45 and Integrated Wi-Fi (configured via Inca Series Control Web App)
Power Supply	UREC™ universal mains switch mode power supply with Power Factor Correction (PFC) and standby converter
Operating Voltage / Frequency	Universal Mains 100V – 240V AC, 50 Hz – 60 Hz
Rated Power Consumption	150 W
Standby Power Consumption	< 0.5 W / < 500 mW (ErP compliance)
Idle Power Consumption	14.5 W @ 120 V (49 BTU) / 15.9 W @ 230 V (54 BTU)
Power Efficiency (at 1/8th full power into 4 ?)	58.6%
Thermal Dissipation (at 1/8th full power into 4 ?)	44.5 W (152 BTU)
Dimensions (H x W x D)	44.5 x 220 x 322 mm (1.8 x 8.7 x 12.7 in)
Net Weight	2.8 kg (6.2 lbs)

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