



# 2RU AMPLIFIERS

PROA1000 | PROA1200 SERIES

## PRODUCT ID



ProA1000.1 • ProA1000.1D • ProA1000.2 • ProA1000.2D

ProA1200.1 • ProA1200.1D • ProA1200.2 • ProA1200.2D

## APPLICATIONS

These amps offer a combination of small size and high power per channel flexibility, making them ideal for installing in commercial applications which demand a variety of outputs. The required power can be utilized where needed – with both Hi-Z and Lo-Z simultaneously, to fit all needs, and all easily set up through the Origin PRO™ Web App user interface. Personalize your system to deliver the power required, with 1-2 channels in Hi-Z or 2-4 in Lo-Z to cover any room size.

- **BARS, CAFES & RESTAURANTS** Sound is part of the dining experience, with many dynamic needs for the sound level. Some have bar areas where they need more sound pressure, and then have cozy eating areas where they need less. Using these amps, complete flexibility of power is available at your fingertips for the perfect range of audio.

- **COMMERCIAL RETAIL** Perfect for retail stores offering background sound (or sound branding) where music is matched to the profile of store, and leads to a wide range of sound demand – a furniture store with tranquil background branding, a stylish clothes shop with medium pressure or a trendy statement store with need for impact!

- **AUDITORIUMS & HOUSE OF WORSHIP** Gathering spaces with auditoriums, large dining spaces, theaters, and multiple large meeting rooms of any size, require reliable, high quality amplification of voice, with coverage over a large distribution area, using multiple specialized speakers. Our amps will deliver superior quality of amplification at medium power levels, delivering excellent speech intelligibility.

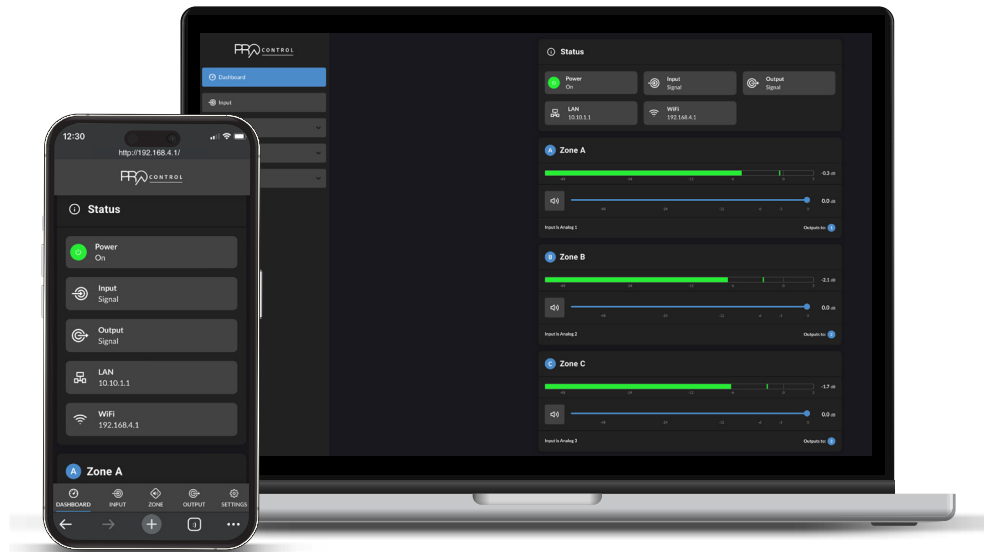
- **HOTELS, CORPORATE & EVENT SPACES** Commercial spaces incorporating different applications – open office spaces, board & conference rooms, meeting areas – plus warehouses, cafeteria & break areas? One amplifier can cover all these needs.

- **FITNESS CENTERS** Soft background sounds in yoga classes – then heart racing power in the spinning & Cross Fit classes? No problem. These amps will match all demands, with powerful system flexibility.

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## ORIGIN PRO AMPLIFIER WEB APP



ProA1000 & ProA1200 Amp Series are 2 RU Class-D amplifiers, ideal for installer projects that require high-performance, advanced audio output.

Our robust Origin PRO amplifier web app arrives built into the amp, to offer a fully personalized DSP configuration for any audio/voice system in a context requiring the most advanced multi-zone audio set up. Quickly accessed from any device or browser, the Origin PRO interface directly links to the amp's own Wi-Fi or RJ45 network port, and navigation through the seamless user interface will allow the most complex system to be set up effortlessly in minutes.

State of the art technology makes it a piece of cake to create your unique configurations while efficiently integrating the most demanding audio/voice systems. Capable of reliably handling numerous DSP configurations, while offering an extensive scope of tuning capabilities and features: the app enables multi-zone setup, input mixing, priority and ducking, restriction, input and output EQ, S/PDIF output routing, high-pass filter, speaker management and presets, delay, wall controller configuration, sine generator, and more.

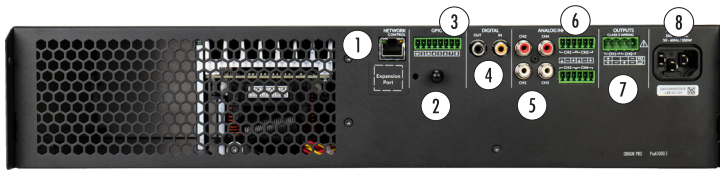
The Lo-Z and Hi-Z modes facilitate proportional distribution of power to either zones of traditional low-impedance ( $4\Omega$  to  $8\Omega$ ) loudspeakers or 70V/100V loudspeakers, ideal for unique audio setup in locations such as commercial retail, event hosting spaces, theaters, bars, cafes, restaurants, fitness facilities, corporate environments hotels & hospitality spaces, with ducking for mic talk overs and conference rooms.

The ProA1000 & ProA1200 Amp Series will simplify and streamline the high performance audio setup process, for an unrivaled end result.

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## ORIGIN PRO AMPLIFIER WEB APP | AMPLIFIER FEATURES



2 CHANNEL



4 CHANNEL

1. RJ45 CONNECTION
2. WI-FI ANTENNA
3. WALL CONTROL INPUT – MUTE/STD + MORE – SELECTABLE IN ORIGIN PRO AMPLIFIER WEB APP
4. DIGITAL AUDIO IN/OUT (S/PDIF)
5. 4 X UNBALANCED RCA INPUT
6. BALANCED INPUTS – MIC INPUT ON CH1 AND CH2 – SENSITIVITY SELECTABLE IN ORIGIN PRO AMPLIFIER WEB APP
7. 2 X LO-Z OUTPUTS & 1 X HI-Z OUTPUT OR  
4 X LO-Z OUTPUTS & 2 X HI-Z OUTPUTS (MODEL DEPENDING)
8. POWER IEC 90-268VAC INPUT

- **MULTI-ZONE SETUP:** Configuration of complex multi-zone system with zone management and detailed settings
- **INPUT MIXING:** Option to unify input sources in 2 or 4 separate mixers
- **PRIORITY AND DUCKING:** Configuration of priority input and ducking to override primary audio in each zone
- **INPUT AND OUTPUT EQ:** Visible parametric EQ on each analog input and all outputs, also includes a High-pass filter for optimum speech clarity & natural sound
- **S/PDIF INPUT/OUTPUT:** Option to route zones and inputs to S/PDIF and expand with another amplifier
- **SPEAKER PRESETS:** Option to apply speaker presets from 3rd party brands, or create a new unique present
- **DELAY:** Option to apply up to 100.00 ms of delay to any output (112.50ft/34.3m)
- **IN ROOM CONTROLLER CONFIGURATION:** Configuration for 3rd party brand wall controllers, such as Crestron, Control4, Q-Sys
- **DSP** Full DSP configuration via Origin PRO amplifier web app
- **TARGETED LO-Z HI-Z** Ideal distribution of Lo-Z Hi-Z Performance
- **MASTER/SLAVE FUNCTIONALITY** S/PDIF link to multiple amps
- **AUTOSHARE** Supports auto sharing
- **FULL RACK DESIGN**
- **CONFIGURABLE POWER DISTRIBUTION IN BOTH LO-Z AND HI-Z**
- **ADAPTABLE POWER SHARING ACROSS OUTPUT CHANNELS**
- **CONFIGURABLE GPIO**
- **ERP AND ENERGY STAR COMPLIANT / UL LISTED AUDIO EQUIPMENT**



# 2RU AMPLIFIERS

## PROA1000 | PROA1200 SERIES

### SPECIFICATIONS

Model   Channels	ProA1000.1 (2 x Lo-Z   1 x Hi-Z)	ProA1000.2 (4 x Lo-Z   2 x Hi-Z)
Output Power @ 2Ω	2 x 500 W (SE)*	4 x 500 W (SE)
Output Power @ 4Ω	2 x 500 W (SE) 1 x 1000 W (BTL)**	4 x 500 W (SE) 2 x 1000 W (BTL)
Output Power @ 8Ω	2 x 250 W (SE) 1 x 1000 W (BTL)	4 x 250 W (SE) 2 x 1000 W (BTL)
Output Power @ 70V	1 x 1000 W (BTL)	2 x 1000 W (BTL)
Output Power @ 100V	1 x 1000 W (BTL)	2 x 1000 W (BTL)
Total System Power	1000 W	2000 W
Power Consumption (W)	350	700
Idle Power consumption (mW)	<500	<500
Standby Power consumption (W)	13.1	23.2
Thermal Loss [BTU/h]	167	327
Output Voltage	45 Vrms (SE unloaded) 90 Vrms (BTL unloaded)	45 Vrms (SE unloaded) 90 Vrms (BTL unloaded)
Weight	5.9 kg	7.4 kg

**ProA1000.1D | Specifications same as ProA1000.1 , With Dante Capabilities**

**ProA1000.2D | Specifications same as ProA1000.2 , With Dante Capabilities**

\*SE – conventional, single ended output mode

\*\*BTL – bridge-tied load output mode



# 2RU AMPLIFIERS

## PROA1000 | PROA1200 SERIES

### SPECIFICATIONS

Model   Channels	ProA1200.1 (2 x Lo-Z   1 x Hi-Z)	ProA1200.2 (4 x Lo-Z   2 x Hi-Z)
Output Power @ 2Ω	2 x 750 W (SE)	4 x 750 W (SE)
Output Power @ 4Ω	2 x 750 W (SE)	4 x 750 W (SE)
	1 x 1500 W (BTL)	2 x 1500 W (BTL)
Output Power @ 8Ω	2 x 400 W (SE)	4 x 400 W (SE)
	1 x 1500 W (BTL)	2 x 1500 W (BTL)
Output Power @ 70V	1 x 1200 W (BTL)	2 x 1200 W (BTL)
Output Power @ 100V	1 x 1500 W (BTL)	2 x 1500 W (BTL)
Total System Power	1500 W	3000 W
Power Consumption (W)	350	700
Idle Power consumption (mW)	<500	<500
Standby Power consumption (W)	13.1	23.2
Thermal Loss [BTU/h]	203	419
Output Voltage	55 Vrms (SE unloaded)	55 Vrms (SE unloaded)
	110 Vrms (BTL unloaded)	110 Vrms (BTL unloaded)
Weight	5.9 kg	7.4 kg

**ProA1200.1D | Specifications same as ProA1200.1 , With Dante Capabilities**

**ProA1200.2D | Specifications same as ProA1200.2 , With Dante Capabilities**

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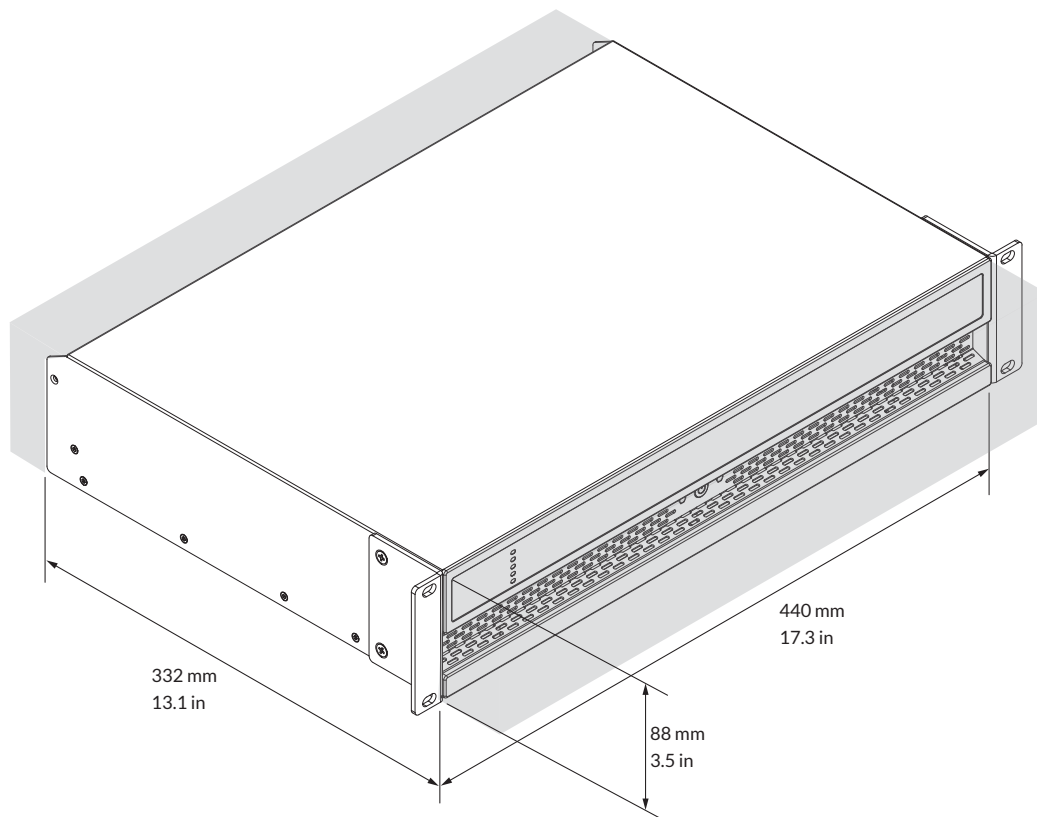
## LINE DRAWING (Shaded area defines ventilation space)

### 2RU | 2 CHANNEL MODELS

ProA1000.1 • ProA1000.1D • ProA1000.2 • ProA1000.2D

### 2RU | 4 CHANNEL MODELS

ProA1200.1 • ProA1200.1D • ProA1200.2 • ProA1200.2D



# 2RU AMPLIFIERS

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## SAFETY AGENCY COMPLIANCE

The following Origin PRO 2RU amplifier models: ProA1000.1 • ProA1000.1D • ProA1000.2 • ProA1000.2D • ProA1200.1 • ProA1200.1D • ProA1200.2 • ProA1200.2D, meet the following standards:

### UL 62368-1 & CSA C22.2 No. 62368-1: Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements

See below for Scope:

#### 1. Scope



This part of IEC 62368 is applicable to the safety of electrical and electronic equipment within the field of audio, video, information and communication technology, and business and office machines with a rated voltage not exceeding 600 V. This standard does not include requirements for performance or functional characteristics of equipment. NOTE 1 Examples of equipment within the scope of this standard are given in Annex a. NOTE 2 A RATED VOLTAGE of 600 V is considered to include equipment rated 400/690 V.

This part of IEC 62368 is also applicable to: - components and subassemblies intended for incorporation in this equipment. Such components and subassemblies need not comply with every requirement of the standard, provided that the complete equipment, incorporating such components and subassemblies, does comply; - external power supply units intended to supply other equipment within the scope of this part of IEC 62368; - accessories intended to be used with equipment within the scope of this part of IEC 62368.

This part of IEC 62368 does not apply to power supply systems which are not an integral part of the equipment, such as motor-generator sets, battery backup systems and distribution transformers.

This part of IEC 62328 specifies safeguards for ordinary persons, instructed persons, and skilled persons. Additional requirements may apply for equipment that is clearly designed or intended for use by children or specifically attractive to children. NOTE 3 In Australia, the work conducted by an INSTRUCTED PERSON or a SKILLED PERSON may require formal licensing from regulatory authorities.

This standard assumes an altitude of 2,000 m unless specified otherwise by the manufacturer.

This part of IEC 62368 does not apply to equipment to be used in wet areas. Additional requirements may apply.

Additional requirements for equipment intended for outdoor installation are given in IEC 60950-22.

This part of IEC 62368 does not address: - manufacturing processes except safety testing; - injurious effects of gases released by thermal decomposition or combustion; - disposal processes; - effects of transport (other than as specified in this standard); - effects of storage of materials, components, or the equipment itself; - the likelihood of injury from particulate radiation such as alpha particles and beta particles; - the likelihood of thermal injury due to radiated or convected thermal energy; - the likelihood of injury due to flammable liquids; - the use of the equipment in oxygen-enriched or explosive atmospheres; - exposure to chemicals other than as specified in Clause 7; - electrostatic discharge events; - environmental aspects; - requirements for functional safety. NOTE 4 For specific functional and software safety requirements of electronic safety-related systems (for example, protective electronic circuits), see IEC 61508-1.

1DV.1 Modify Clause 1 by adding the following text after the third paragraph:

Battery backup systems that are not an integral part of stationary equipment, such as provided in separate cabinets, are subject to the appropriate standard for battery backup systems, such as UL 1973, Batteries for Use in Light Electric Rail (LER) Applications and Stationary Applications. NOTE See Figures 1.1 and 1.2 of UL 1973 for more information on independent electric energy storage systems (EESS) covered by UL 1973, which can consist of both low voltage (class ES or ES2) and high voltage (class ES3) subsystems, battery management, thermal management, and related features and safeguards. When interconnected with AV, IT, and CT Equipment, and typically used in conjunction

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with an uninterruptible power supply (UPS), such as EESS typically serve as a short-term substitution of the mains supply during power outages and similar disturbances.

1DV.2 Modify Clause 1 by replacing the seventh paragraph with the following:

Additional requirements for information and communication technology equipment intended for outdoor installation are given in CSA/UL 60950-22. Additional requirements for audio/video equipment intended for outdoor installation are given in the relevant requirements in CAN/CSA C22.2 No. 60065 or UL 60065.

1DV.3 Modify Clause 1 by adding the following text:

1DV.3.1 This standard also is applicable to equipment designed to be installed in accordance with the Canadian Electrical Code, Part I, CSA C22.1-12; Canadian Electrical Code, (CEC) Part II, General Requirements, CAN/CSA C22.2 No. 0-10; the National Electrical Code, NFPA 70-2014; and the National Electrical Safety Code, IEEE C2-2012.

1DV.3.2 The standard is also applicable to equipment, when identified by a marking or instruction [see Annex dvk (Annex DVA, Clause 1 entry)], designed to be installed in accordance with Article 645 of the National Electrical Code, NFPA 70-2014 and the Standard for the Protection of Information Technology Equipment, NFPA 75-2013.

1DV.3.3 See Annex dva for requirements and references to regulatory requirements that apply to this equipment, as applicable.

1DV.4 Modify Clause 1 by adding the following text:

1DV.4.1 This standard includes additional requirements for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities. See Annex dvb.

1DV.4.2 This standard includes additional requirements for equipment intended for mounting under kitchen cabinets. See Annex dvc.

1DV.4.3 This standard does not apply to equipment having Remote Feeding Telecommunication (RFT) circuits. Equipment having RFT circuits is covered by CSA/UL 60950-21.

1DV.4.4 Additional requirements may apply to large data storage equipment. Refer to CSA/UL 60950-23.

1DV.4.5 This standard does not cover Modular Data Centers (MDCs), only the information and communication technology equipment contained within. NOTE: In the U.S., Modular Data Centers are covered by UL 2755, Modular Data Centers.

1DV.5 Modify Clause 1 by adding the following text:

1DV.5.1 Power Distribution Equipment and Sub-Assemblies

1DV.5.1.1 This standard also is applicable to power distribution subassemblies connected to a mains used to distribute power entirely within a system of equipment also covered by this standard, such as power distribution units (PDUs) in the form of cord-connected power strips and shelves with multiple power outlets (receptacles) and intended to be installed in system racks, cabinets, home entertainment centers, etc.

1DV.5.1.2 For equipment covered by this standard that incorporates components and sub-assemblies that perform a power distribution and control function covered by other standards, such as panelboards, load transfer equipment, or uninterruptible power systems utilized in power conditioners and computer power centers, this standard only may be used for investigation of safety for those aspects not covered by the other standards.



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1DV.5.1.3 This standard also does not apply to stand-alone equipment used for distribution of mains power that is covered by individual power distribution equipment standards.

1DV.5.1.4 Based on the specific function, the following requirements are applicable to the stand-alone distribution equipment, or apply additionally to power distribution sub-assemblies and components of equipment covered by this standard, as described in 1dv.5.1.2 and 1dv.5.1.3:

- For Industrial Control Equipment, see CSA C22.2 No. 14 and UL 508.
- For Panelboards, see CSA C22.2 No. 29 and UL 67.
- For Switchboards, see CSA C22.2 No 244 and UL 891.
- For Transfer Switch Equipment, see CSA C22.2 No 178.1 and UL 1008.
- For Uninterruptible Power Systems, see CSA C22.2 No. 107.3 and UL 1778.
- For Power Distribution Centers for Communications Equipment, see UL 1801.
- For other forms of power distribution units for general applications, such as,
  - Relocatable Power Taps, see CSA C22.2 No. 21, Cord Sets and Power Supply Cords, and UL 1363, Relocatable Power Taps.
  - Cord connected Surge Protective Devices, see CSA Technical Information Letter No. A-24, Interim Certification Requirements for AC Line Connected Wiring Devices with Varistors, and UL 1449, Surge Protective Devices.
  - Furniture Power Distribution Units, see CSA C22.2 No. 21, Cord Sets and Power Supply Cords, and UL 962A, Furniture Power Distribution Units.

NOTE 1. It is assumed that power distribution equipment covered by the scope of this Standard is interconnected to the “Outlet” of a “Branch Circuit” as defined in Section 0 of the CEC, Part I, and Article 100 of the NEC. In the case of cord-connected equipment, the Outlet is the Receptacle associated with the building wiring. In the case of permanently connected equipment, the Outlet is the interface between the Branch Circuit conductors associated with the building wiring and the input terminals, pressure connectors, or leads associated with the power distribution equipment covered in whole or part by this standard.

NOTE 2. The following are common definitions of the hardware with related functions that require additional investigation to the appropriate Canadian and U.S. standards. Industrial Control Panel - An assembly of two or more components consisting of one of the following:

- (1) Power circuit components only, such as motor controllers, overload relays, fused disconnect switches, and circuit breakers;
- (2) Control circuit components only, such as pushbuttons, pilot lights, selector switches, timers, switches, control relays; or
- (3) A combination of power and control circuit components.

These components, with associated wiring and terminals, are mounted on or contained within an enclosure or mounted on a subpanel. The industrial control panel does not include the controlled equipment. Panelboard - A single panel or group of panel units designed for assembly in the form of a single panel, including buses and automatic overcurrent devices, and equipped with or without switches for the control of light, heat, or power circuits; designed to be placed in a cabinet or cutout box placed in or against a wall, partition, or other support; and accessible only from the front. Switchboard - A large single panel, frame, or assembly of panels on which are mounted, on the face, back, or both, switches, overcurrent and other protective devices, buses, and usually instruments. Switchboards are generally accessible from the rear as well as from the front and are not intended to be installed in cabinets. Transfer Switch - An automatic or nonautomatic device for transferring one or more load conductor connections from one power source to another. Uninterruptible Power Supply - A power supply used to provide alternating current power to a load for some period of time in the event of a power failure.