



## NETWORKED 2-CHANNEL AUDIO POWER AMPLIFIERS

# Models NQ-A2060, NQ-A2120, NQ-A2300



Models NQ-A2060 & NQ-A2300 shown

### DESCRIPTION

Bogen's Nyquist-based networked audio power amplifiers offer cost-effective performance for permanent installations and commercial sound, and are designed to meet the rigorous requirements of today's sophisticated sound systems. Designed with the commercial sound contractor in mind, they provide unparalleled flexibility and versatility without the need for add-on modules. They offer state-of-the-art, built-in DSP software for extensive and comprehensive signal processing, including factory loudspeaker presets, which turns the amplifier into a complete audio solution.

The Nyquist NQ-A2xxx are now capable of Standalone Operation that allows for use of these appliances for AoIP applications such as a SIP endpoint to act as a paging mixer/amplifier for an existing PBX/VoIP phone system, or a paging mixer/amplifier on an existing PBX/analog phone system. Additionally, the NQ-A2xxx audio power amplifiers can be used in standalone audio applications where a networked amplifier is desired for remote volume, mixing and DSP control from a web browser-enabled device.

When used in a Nyquist 7000 ecosystem, zone-based program audio selection and volume levels can be remotely adjusted using Nyquist's web-based Zone Volume and Audio Distribution Control, which has been specially designed for use with low-cost tablets.

These 2-channel amplifiers are available in 120, 240, and 600-watt models, each with the same features to provide power and performance, no matter how large or small the application.

In addition to their extensive flexibility, the Nyquist networked audio power amplifiers use the latest in Class D amplifier technology and provide unparalleled sonic quality, exceptional reliability, and reduced heat output for increased operating efficiency.

### FEATURES

- 1 dedicated Balanced Line Input (both Phoenix plug & XLR)
- Line Input that can be routed-out over the Nyquist network
- Network-based audio input (paging, audio distribution)
- 4 ohm, 8 ohm, 25V, and 70V outputs
- GUI-based DSP control
  - 16-band Graphic Equalizer
  - Signal Present and Clip Monitor
  - Adjustable High Pass, Low Pass, and Bandpass Filters
  - Noise Gate / Compressor/Limiter
  - 7-band Parametric Equalizer / Delay / Peak Limiter
  - Speaker Presets / RMS Limiter / Status

#### Standalone Operation

- Switch-selectable 2-channel or 1-channel bridged operation
- Safety: CAN/CSA C22.2 No. 62368-1:2014; UL62368-1:2014; EN 62368-1:2014
- EMC: FCC Part 15b Class A; ICES-003, Issue 6: 2016; EN 55032:2012; EN 55035:2017
- 1/2 Rack Width – Wall-, Rack-, or Shelf-mountable – 1RU and 2RU packages
- 19" Rack Mount Kit (NQ-RMK03; sold separately)
- Standalone Operation Mode
- Standalone SIP Endpoint Support

### A & E SPECIFICATIONS

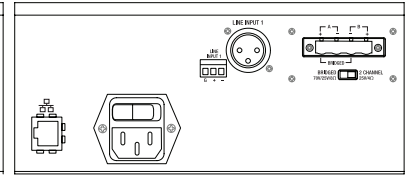
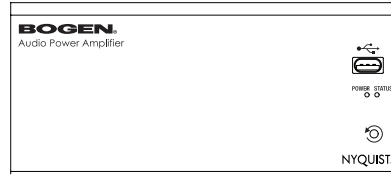
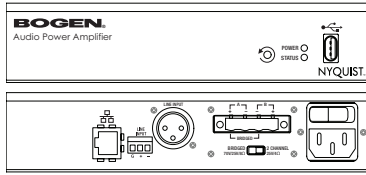
The Nyquist based two channel amplifier shall be a model \_\_\_\_, rated at \_\_\_\_ watts RMS per channel (NQ-A2060/2x60 watts, NQ-A2120/2x120 watts, and NQ-A2300/2x300 watts) with switch-selectable 2-channel or 1-channel bridged operation. The amplifier shall have one dedicated Balanced Line Input with both Phoenix plug & XLR connections. The amplifier shall provide a frequency response from 20-20 kHz +/- 0.25 dB at rated power. Distortion shall be less than 0.03%. The amplifier shall include GUI-based DSP controls: 16-band Graphic Equalizer; Signal Present and Clip Monitor; Adjustable High Pass, Low Pass, and Bandpass Filters; Noise Gate; Compressor/Limiter; Delay; Peak Limiter; Speaker Presets; RMS Limiter; Status; and 7-band Parametric Equalizer. Outputs shall be provided for 4-ohm, 8-ohm, 25V, and 70V distributed systems. Program selection and audio levels shall be remotely adjustable using a web-based Zone Volume and Audio Distribution Control. The amplifier shall be rack mountable 1/2 Rack Width -Wall, Rack, or Shelf mountable 1RU and 2RU packages or by using a 19" Rack Mount Kit (NQ-RMK03; sold separately). It shall carry the necessary safety agency listings for both the United States and Canada. The amplifier shall employ convection air cooling. Amplifiers that require fans for cooling shall not be considered equal.

The Nyquist NQ-A2xxx are now capable of Standalone Operation that allows for use of these appliances for AoIP applications such as a SIP endpoint to act as a paging mixer/amplifier for an existing PBX/VoIP phone system, or a paging mixer/amplifier on an existing PBX/analog phone system; additionally allows the NQ-A2xxx audio power amplifiers to be used in standalone audio applications where a networked amplifier is desired for remote volume, mixing and DSP control from a web browser-enabled device.



The **C4000 Series** is built upon Bogen's award-winning Nyquist software-based IP communications platform, which provides users with unparalleled flexibility and scalability, whatever their application.

Models  
NQ-A2060, NQ-A2120  
Front/Rear Panels



Model NQ-A2300 Front/Rear Panels

## TECHNICAL SPECIFICATIONS

	NQ-A2060	NQ-A2120	NQ-A2300
<b>Power Output 2-Ch. Mode (per Ch.)</b>	60W @ 25V/4 ohms	120W @ 25V/4 ohms	300W @ 25V/4 ohms
<b>Power Output 1-Ch. Bridged Mode (per Ch.)</b>	120W @ 70V/25V/8 ohms	240W @ 70V/25V/8 ohms	600W @ 70V/25V/8 ohms
<b>Line-In Sensitivity (Gain min./max.)</b>	Continuously variable from 2V to 0.1V RMS		
<b>S/N Ratio (20 kHz BW)</b>	97 dB		
<b>Power Output Bandwidth</b>	20 Hz-20 kHz < .03% THD+N		
<b>THD+N @ 1 kHz rated power</b>	< .03%		
<b>Rated Load Impedance (min. per Ch.)</b>	8 ohms Bridged / 4 ohms Non-Bridged		
<b>Frequency Response @ 1 Watt</b>	20 Hz -20 kHz +/- 0.25 dB		
<b>Class of Operation</b>	Class D		
<b>Connectors</b>	10A Line Cord C14 IEC Inlet		
<b>Power Input</b>	Balanced 3-pin Phoenix Plug/Header, Balanced 3-pin Neutrik XLR, RJ45, USB 2.0 Type A		
<b>Output</b>	4-pin "touch proof" Phoenix Plug/Header		
<b>Line Inputs</b>	10k ohm electronically balanced, 3-pin Phoenix and 3-pin Neutrik XLR		
<b>AC Input Voltage Range</b>	85 VAC to 265 VAC 50/60 Hz		
<b>Maximum AC Current</b>	2A	3A	6A
<b>Indicators</b>	Status & Power LEDs (front) / Network LEDs (rear)		
<b>Operating Temperature Range</b>	-15 C to +40 C		
<b>Thermal Emissions (Full Power)</b>	90 BTU/hr.	135 BTU/hr.	225 BTU/hr.
<b>Cooling</b>	Convection		
<b>Protection</b>	RF, DC, Low Frequency, Thermal, Low Impedance, Short Circuit, Clip Limiting		
<b>DSP Based Audio Features</b>	16-band Graphic Equalizer; Signal Present and Clip Monitor; Adjustable High Pass, Low Pass, and Bandpass Filters; Noise Gate; Compressor/Limiter; 7-band Parametric Equalizer		
<b>Special Features</b>	Sleep Mode (defeatable), Power Factor Correction (PFC), 89% Amplifier Efficiency, On/Off Muting, Bridge Mode Switch		
<b>Networking</b>	Cat5 or better 10/100 network connectivity to Bogen's Nyquist network		
<b>Product Weight</b>	4.4 lbs.	4.4 lbs.	6.4 lbs.
<b>Physical Dimensions:</b>	1/2 Rack Width x 1RU*		1/2 Rack Width x 2RU**
<b>*Single Rack Space (1RU)</b>	8.00" W x 1.70" H x 13.48" D <small>(Depth includes Phoenix connectors: width is without rack mount brackets attached; height excludes rubber mounting feet)</small>		
<b>** Double Rack Space (2RU)</b>	8.00" W x 3.43" H x 13.48" D <small>(Depth includes Phoenix connectors: width is without rack mount brackets attached; height excludes rubber mounting feet)</small>		

### Limited Warranty, Exclusion of Certain Damages

The NQ-A2060, NQ-A2120, NQ-A2300 are warranted to be free from defects in materials and workmanship for five (5) years from the date of sale to the original purchaser. Any part of the product covered by this warranty that, with normal installation and use, becomes defective (as confirmed by Bogen upon inspection) during the warranty period will be repaired or replaced by Bogen, at Bogen's option, with new or refurbished product, provided the product is shipped insured and prepaid to: Bogen Factory Service Department: 4570 Shelby Air Drive, Suite 11, Memphis, TN 38118, USA. Repaired or replacement product(s) will be returned to you freight prepaid. This warranty does not extend to any of our products that have been subjected to abuse, misuse, improper storage, neglect, accident, improper installation or have been modified or repaired or altered in any manner whatsoever, or where the serial number or date code has been removed or defaced.

THE FOREGOING LIMITED WARRANTY IS BOGEN'S SOLE AND EXCLUSIVE WARRANTY AND THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY. BOGEN MAKES NO OTHER WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED AND EXCLUDED TO THE MAXIMUM EXTENT ALLOWABLE BY LAW. Bogen's liability arising out of the manufacture, sale or supplying of products or their use or disposition, whether based upon warranty, contract, tort or otherwise, shall be limited to the price of the product. IN NO EVENT SHALL BOGEN BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, LOSS OF DATA OR LOSS OF USE DAMAGES) ARISING OUT OF THE MANUFACTURE, SALE OR SUPPLYING OF PRODUCTS, EVEN IF BOGEN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSSES. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

Products that are out of warranty will also be repaired by Bogen Factory Service Department -- same address as above or call 201-934-8500, at owner's expense. Returned products which do not qualify for warranty service, may be repaired or replaced at Bogen's option with a previously repaired or refurbished item. The parts and labor involved in these repairs are warranted for 90 days when repaired by the Bogen Factory Service Department. All parts and labor charges as well as shipping charges will be at the owner's expense.

All returns require a Return Authorization number. For most efficient warranty or repair service, please include a description of the failure.

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COMMUNICATIONS, INC.

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