## NuQ NuQ122-AN

2,500 Watt 2 Way 12" Full Range Powered Loudspeaker with KLARK TEKNIK DSP Technology and ULTRANET Networking

- 2 way full range powered loudspeaker for portable PA applications
- 2,500 Watt power featuring KLARK TEKNIK Class-D technology
- KLARK TEKNIK Digital Signal Processing for total system control
- ULTRANET digital audio networking connects to mixers and other sources
- 12" low frequency driver with low mass voice coil for improved transient response
- Aluminium dome 1" neodymium motor compression driver
- Low distortion waveguide provides 70° H x 70° V dispersion
- Fully featured user interface with LCD display for ease of navigation
- PC remote control software downloadable at turbosound.com
- 15 mm (%") birch plywood enclosure with hard wearing semi matt black paint finish
- Rugged powder coated perforated steel mesh grille
- Integral 35 mm pole mount and handles
- Multiple internal rigging points allow bracket mount and suspension in any orientation
- Mains input on Neutrik powerCON\* connector
- 3-Year Warranty Program\*\*
- Designed and engineered in England

The 2 way full range NuQ122-AN is a 2,500 Watt 12" powered loudspeaker system that is ideally suited for a wide range of portable and fixed installation speech and music sound reinforcement applications. Designed to work individually without a controller, the NuQ122-AN provides optimal performance for FOH, sidefill and delay line loudspeakers, and is an exceptional choice for wedge



monitoring applications. It also offers the flexibility to accommodate venue-specific requirements for install applications.

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The NuQ122 loudspeaker features a 12" low frequency driver with a low mass voice coil for improved transient response and an aluminium dome 1" neodymium high frequency compression driver, which is mounted on a 70° horizontal by 70° vertical dispersion low distortion waveguide.

Output power for the NuQ122-AN is provided by means of an efficient and lightweight KLARK TEKNIK 2,500-Watt Class-D power amplifier. A sophisticated, but easy to use KLARK TEKNIK Digital Signal Processor (DSP) provides dynamic EQ for impressive full range response at low volume levels and transparent limiting for clarity at high output levels – and for long-term reliability.

\*All third-party trademarks are the property of their respective owners. Their use neither constitutes a claim of the trademark nor affiliation of the trademark owners with MUSIC Group. Product names are mentioned solely as a reference for compatibility, effects and/or components.



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On the rear panel of the amplifier module, the user interface's LCD display and single rotary encoder provide intuitive access to: position compensation, user EQ control, subwoofer integration and signal routing features. In addition to the balanced XLR input, an XLR output is provided for daisy-chaining more active loudspeakers or for use with active subwoofers. An onboard USB port provides access for remote control of the NuQ122-AN via PC computer, as well as DSP firmware updates.

ULTRANET connectivity is provided by two locking etherCON\* connectors. Up to 16 independent channels of 24-bit digital audio and control data are transmitted via a single CAT5 cable between compatible digital devices – including mixers, I/O stage boxes, powered loudspeakers and personal monitoring systems. Simplified cable routing and ease of setup translate directly into significant time saved during installation.

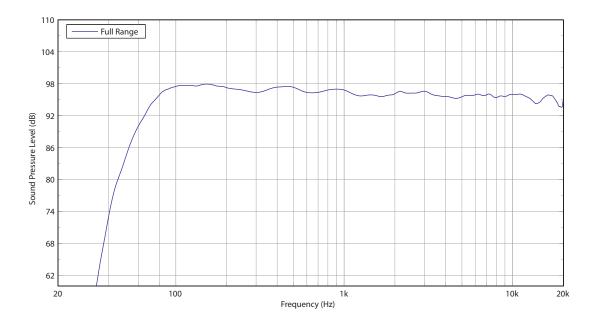
Finished in a highly durable semi matt black paint, the trapezoidal cabinet is constructed from 15 mm (%") birch plywood – and includes a rugged powder coated perforated steel mesh grille. Multiple threaded rigging points are provided for suspension in any orientation. The NuQ122-FY flying yoke kit provides added flexibility in permanent install applications (available separately). The NuQ122-AN also features a 35 mm socket for standard pole mounting – plus integrated handles for convenient transport. Mains power input is provided via a Neutrik powerCON\* connector.



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### Frequency Response Sensitivity 1 W / 1 m

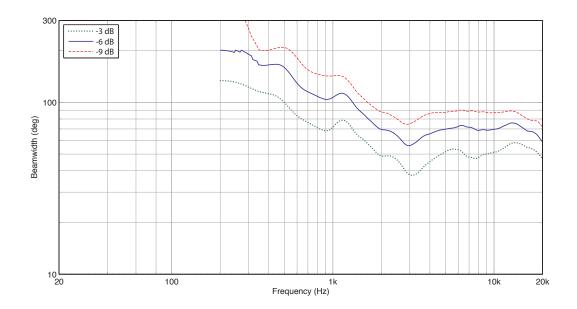




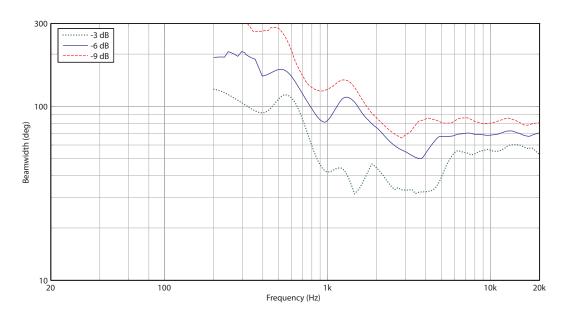
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### **Horizontal Beamwidth**



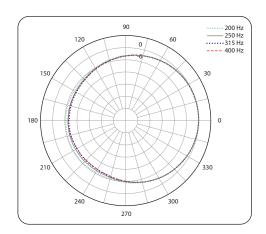
### **Vertical Beamwidth**

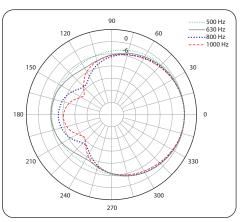


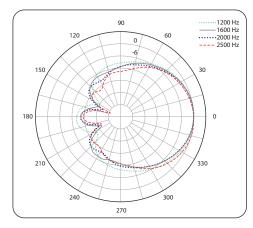


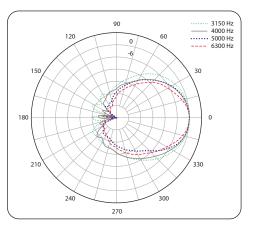
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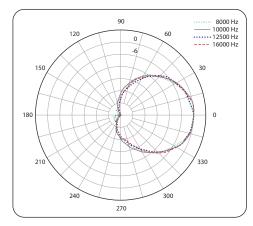
### **Horizontal Polar Plots**







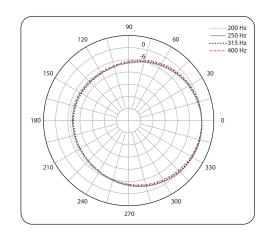


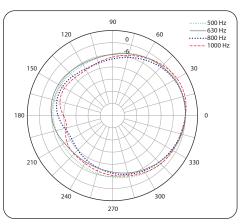


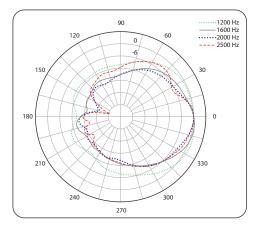


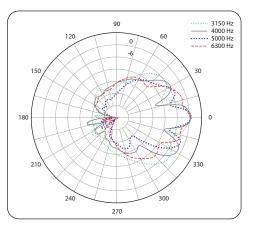
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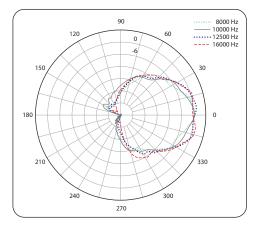
### **Vertical Polar Plots**







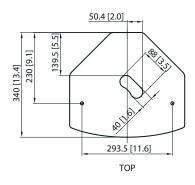


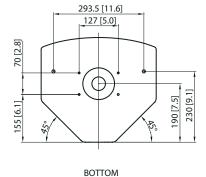


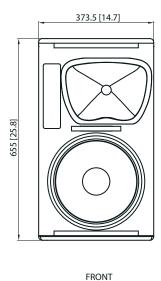


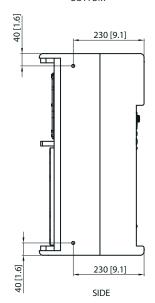
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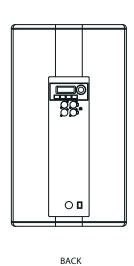
### **Dimensions**













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### **Mounting and Rigging**

The cabinet is fitted with M10 x 8 internally-threaded rigging points that allow it to be rigged with optional shoulder eyebolts and mounted in many different configurations in permanent installations. The simplest method of rigging is to use the two M10 rigging points on the top. Cabinets may also be hung upside down if required.

The cabinet has an integral 35 mm pole mount socket in the bottom panel, that allows it to be pole mounted.

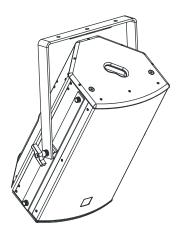
The optional NuQ122-FY fly yoke adds further installation flexibility for scaffold, surface, and pole mounting.



Suspension using M10 shoulder eyebolts.



Mounting on 35 mm pole or speaker stand



NuQ122-FY fly yoke.



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### **Technical Specifications**

**Mains Supply** 

Controls

DSP

| System                |  |
|-----------------------|--|
| Frequency Response    | 55 Hz – 18 kHz ±3 dB                   |
|                       | 50 Hz – 20 kHz -10 dB                  |
| Nominal Dispersion    | 70° H x 70° V @ -6 dB points           |
| Maximum SPL           | 131 dB peak                            |
| Crossover Type        | Active                                 |
| Transducers           | 1 x 12" ( 315.5) LF driver             |
|                       | 1 x 1" (25.4 mm) HF compression driver |
| Limiter               | Independent HF, LF, peak and rms       |
|                       |  |
| Amplifier             |  |
| Maximum Output Power* | 2,500 W                                |
| Туре                  | Class-D                                |
| Protection            | Short circuit, thermal                 |
|                       |  |
| Connectors            |  |
| Input/link            | 1 x Combo Jack/XLR 1 x XLR             |
| Sensitivity           | +4dBu or +14 dBu software switchable   |
| Input impedance       | 40 kΩ balanced                         |
| Maximum input level   | +22 dBu                                |
| Ultranet input/link   | 2 x RJ45                               |
|                       |  |

Neutrik powerCON 20A†

Rotary push-encoder and level control Buttons for Process, Setup, Exit, Enter

| Delay                    | 0 - 300 ms                                 |
|--------------------------|--|
| Equalisation             | High and low shelving EQ 2 x parametric EQ |
| Limiter                  | Zero attack input limiter                  |
| Presets                  | 20 total presets, 19 user-definable        |
| Crossover                | High Pass L-R 24 dB/oct                    |
| Protection               | Lock-out function for all settings         |
|                          |  |
| Ultranet Digital Network |  |
| Digital processing       |  |
| A/D conversion           | 24-bit,44.1/48kHz sample rate              |
| Converter type           | 24-bit,delta-sigma                         |
| System                   |  |
| Signal                   | 16 channels                                |
| Latency                  | < 0.9 ms                                   |
| Frequency response       | 20 Hz to 20 kHz (+0 / -3 dB)               |
| Dynamic range            | typical 92 dB                              |
| Cabling                  |  |
| Cables                   | Shielded CAT5                              |
|                          |  |

Positioning, Sound mode, FBQ

LCD 128 x 32, blue, backlit

**User DSP Functions** 

**Factory EQ Presets** 

Display



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| Power Supply            |                                       |
|-------------------------|---------------------------------------|
| Power consumption       | 90 W @ 1/8 max power                  |
| Voltage (fuses)         |                                       |
| USA / Canada            | 120 V~, 60 Hz (T 15 A H 250 V)        |
| UK / Australia / Europe | 220-240 V~, 50/60 Hz (T 10 A H 250 V) |
| Korea / China           | 220-240 V~, 50/60 Hz (T 10 A H 250 V) |
| Japan                   | 100 V~, 50/60 Hz (T15 A H 250 V)      |

| Enclosure       |  |
|-----------------|--|
| Dimensions HWD  | 656 x 374 x 340 mm (25.8 x 14.7 x 13.4") |
| Net weight      | 20.2 kg (44.5 lbs)                       |
| Construction    | 15 mm (%") birch plywood                 |
| Finish          | Semi matt black paint                    |
| Grille          | Powder coated perforated steel           |
| Flying hardware | M10 x 8 points                           |

#### Accessories

NuQ122-FY fl ying yoke for NuQ122



<sup>\*</sup>independent of limiters and driver protection circuits

<sup>†</sup>Neutrik and powerCON speakON are registered trademarks of Neutrik AG.

<sup>†</sup>Only qualified personnel are allowed to modify the AC-Main cord and to adhere to all applicable national standards.

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### **Architecture & Engineering Specifications**

The loudspeaker shall be of the full range, two-way, powered type, consisting of one 12" (316 mm) LF driver and one 1" (25 mm) HF compression driver. Performance specifications of a typical production unit shall meet or exceed the following: frequency response, measured with swept sine wave input, shall be flat within  $\pm 3$  dB from 55 Hz to 18 kHz and within -10 dB from 50 Hz to 20 kHz. Nominal dispersion, at -6 dB points, shall average 70° H x 70° V. Maximum amplifier output power shall be 2,500 Watts peak, independent of limiters and driver protection circuits. Maximum SPL (peak), measured at 1 metre with music program, shall be 131 dB. Dimensions: 656 mm high x 374 mm wide x 340 mm deep (25.8" x 14.7" x 13.4"). Net weight: 20.2 kg (44.5 lbs). The loudspeaker system shall be the TURBOSOUND NuQ122-AN. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verifies that the above combined performance / size specifications are equaled or exceeded.



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For service, support or more information contact the TURBOSOUND location nearest you:

Europe MUSIC Group Services UK Tel: +44 156 273 2290 Email: CARE@music-group.com

USA/Canada MUSIC Group Services NV Inc. Tel: +17028008290 Email: CARE@music-group.com Japan MUSIC Group Services JP K.K. Tel: +81 3 6231 0454 Email: CARE@music-group.com

