datasheet

B18DP

NuQ SERIES ENGINEERING INFORMATION

The B18DP is a self-powered single 18" bandpass subwoofer enclosure incorporating integral amplifiers and control electronics. The use of DSP amplifier technology ensures an exact match between amplifier and speaker for optimum acoustic output, and offers exceptional ease of use by having the entire electro-acoustic system in one convenient, easily transportable physical package. The B18DP is designed for use in portable speech and music sound reinforcement applications.

The B18DP features a new generation of innovative Class D power amplifier module, utilising revolutionary 96kHz DSP technology to give operating efficiency in excess of 90%.

The B18DP consists of a custom 18" neodymium low frequency driver in a bandpass enclosure optimally tuned for extended low frequency response.

The cabinet is constructed from 18mm (3/4") birch plywood, screwed and glued together for maximum strength and rigidity, and it is finished as standard in durable semi-matt black textured paint. Heavy duty corner protectors are fitted and recessed flush handles are provided for easy lifting and carrying. An integral pole mount socket is fitted to the top of the enclosure to allow two-way cabinets to be mounted at the correct height above the subwoofer.

The rear panel carries a fully integrated Class D amplifier and control electronics module, and incorporates high performance limiters set to optimise the continuous power and excursion threshold for the specific loudspeaker model. A Neutrik™ Powercon connector provides mains input to the unit—the switch mode power supply is auto-sensing over a range from 100 volts to 240 volts—and 3-pin XLR's are used for input and parallel link signal connections. RJ45 network connectors enable multiple loudspeakers to be controlled and monitored over a BVNet network using TurboDrive™ software.

The B18DP can be fitted with optional heavy duty T-4 wheels to aid transportation.

FEATURES

- Digitally self-powered
- Bandpass design
- High efficiency
- Pole mount socket

APPLICATIONS

- Front of house
- Theatre
- Houses of Worship
- Corporate / industrial

Turbosound®

NuQ SERIES ENGINEERING INFORMATION

DIMENSIONS (HxWxD)	768mm x 574mm x 700mm (30.2" x 22.6" x 27.6")
NET WEIGHT	67.5 kg (148.5lbs)
COMPONENTS	1 x 18" (457mm) LF driver
FREQUENCY RESPONSE[1]	40Hz - 150Hz ±4dB
MAXIMUM SPL	130dB continuous[2], 136dB peak[3]
CONSTRUCTION	18mm (3/4") birch plywood; rebated, screwed and glued. Finished in black semi-matt textured paint. Eight recessed carrying handles. Integral pole mount socket
CONNECTORS	Input: (1) XLR female, Link: (1) XLR male, pin 2 hot; Neutrik Powercon; (2) RJ45 network port

AMPLIFIER

TYPE:	Class D inc SMPA and networked DSP
POWER OUTPUT:	1600 watts continuous @ 8 ohms (1kHz, 0.01% THD)
DYNAMIC RANGE:	110dB
INPUT CLIP:	10dBu
BANDWIDTH:	20Hz - 20kHz ±0.5dB
POWER REQUIREMENTS:	100V to 240V AC @ 50/60Hz

OPTIONS

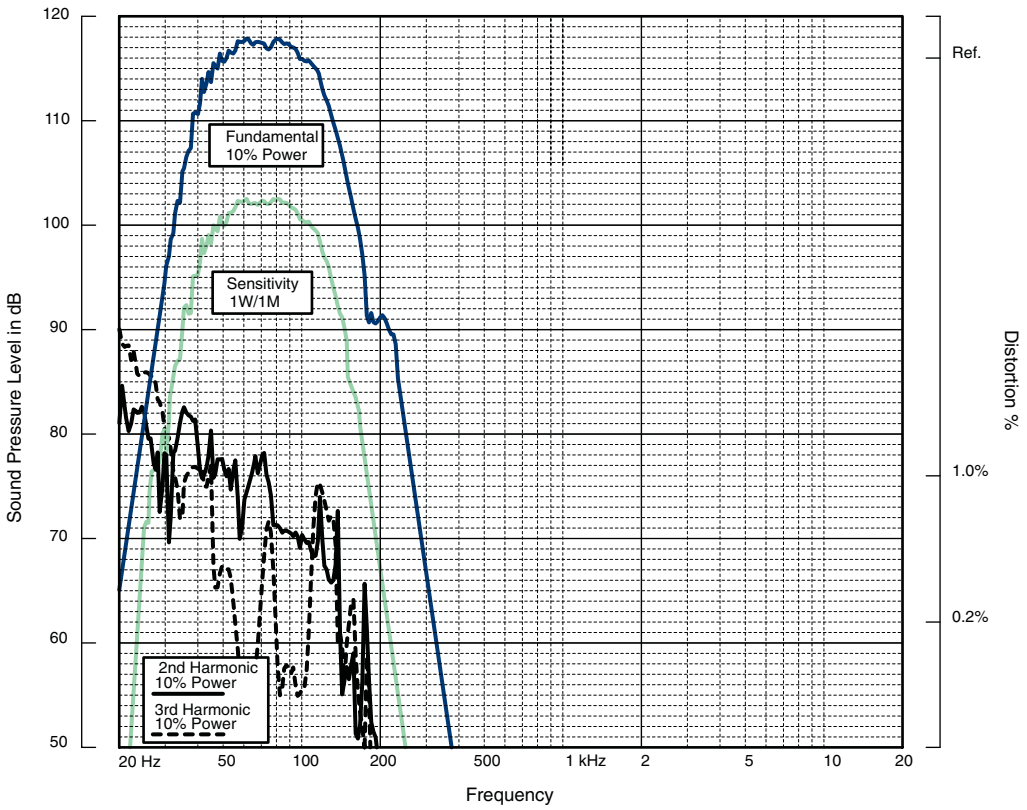
Optional colour: white textured paint

SPARES AND ACCESSORIES

LS-1814	18" (457mm) LF loudspeaker
RC-1814	Recone kit
MG-B18	Replacement grille
T-4	Heavy duty wheels (set of four)
PA-90	90cm straight pole
PA-120	120cm straight pole

Notes
[1]Measured on axis
[2]Unweighted diode-clipped pink noise. Measured in a half space environment
[3]Verified by subjective listening tests of familiar program material, before the onset of perceived signal degradation

FREQUENCY RESPONSE



NOTES ON MEASUREMENT CONDITIONS

Impedance A constant current circuit was used to measure the impedance. **Frequency response** The frequency response shown was obtained by feeding a swept sine wave through an unprocessed loudspeaker system in a full space environment. The position of the microphone was vertically on-axis at a distance of 2 metres, then scaled to represent 1 metre. **2nd & 3rd Harmonic Distortion** Distortion measurements were obtained using an Audio Precision harmonic distortion analysis system and comply with AES recommendations for enclosure measurement (AES paper ANSI S4-26-1984). **Data Conversion** All graphs were digitally generated using the APEX custom software system, designed to translate data derived from Audio Precision 'System One' test equipment into AutoCAD™. This program enables graphical information to be plotted to a high degree of accuracy.

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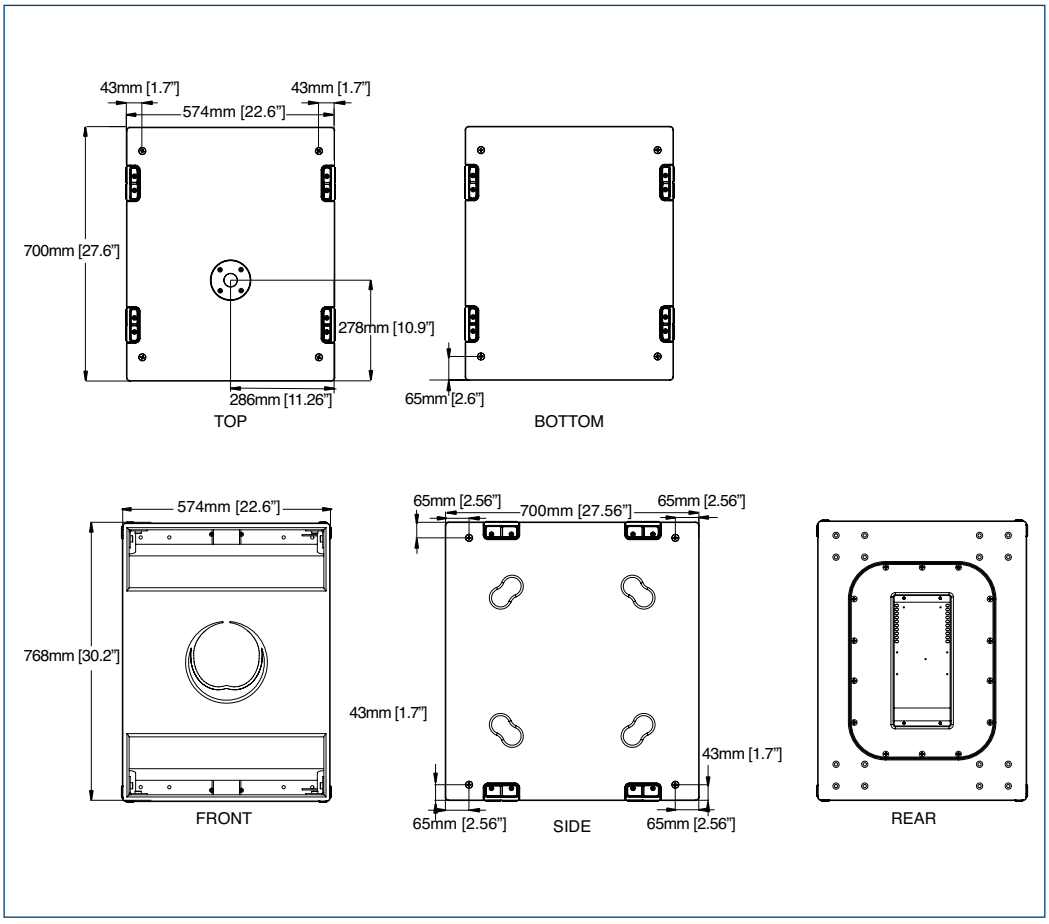
ARCHITECTURAL & ENGINEER'S SPECIFICATIONS

The system shall be of the self-powered bandpass subwoofer type consisting of one 18" (457mm) low frequency loudspeaker. Performance specifications of a typical production unit when used with a recommended digital crossover shall meet or exceed the following: frequency response, measured with swept sine wave input, shall be flat within ±4dB from 40Hz to 150Hz. Maximum SPL (peak) measured with music program at stated amplifier input shall be 136dB. Dimensions: 768mmH x 574mmW x 700mmD (30.2"H x 22.6"W x 27.6"D). Weight: 67.5kg (148.5lbs). The loudspeaker system shall be the Turbosound B18DP. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verify that the above combined performance / size specifications are equalled or exceeded.

DIMENSIONS



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