PQ10

2 Way 10" Full Range Loudspeaker for Tour and Live Sound Applications

Product Features

- Full range 10" Loudspeaker for Touring and Installation Applications
- 350 Watts continuous, 1,400 Watts peak power
- Ideal for FOH, side fill and monitor applications
- 10" low frequency driver with low mass voice coil for improved transient response
- 1.7" Voice Coil, Polyimide Diaphragm Neodymium Compression driver
- Rotatable Catenary Horn provides 80° H x 50° V dispersion
- 15 mm (5/8") plywood enclosure with hard wearing semi matt black PU paint finish 0
- Rugged powder coated perforated steel mesh grille
- Integral 35 mm dual angle pole mount and handles
- Multiple internal rigging points allow bracket mount and suspension in any orientation
- 2 x NL4M connectors for reliable long life operation

PQ10

The 2-way, full range PQ10 is a processed passive 1,400-Watt 10" loudspeaker system ideally suited for a wide range of speech and music sound reinforcement applications. Engineered to work in conjunction with Lab Gruppen powered loudspeaker management systems, the PQ10 provides optimal performance for FOH, side-fill, stage monitor and delay line applications.

The PQ10 features a 10" ferrite low frequency driver with a low mass voice coil for improved transient response, and a polyimide dome 1" neodymium high frequency compression driver mounted onto an 80° horizontal by 50° vertical rotatable exponential Catenary horn. All drivers are matched with an internal passive crossover network in a reflex-loaded enclosure. The rear panel connector plate carries 2 industry-standard twist-locking speaker connectors for input and link connections to additional enclosures.

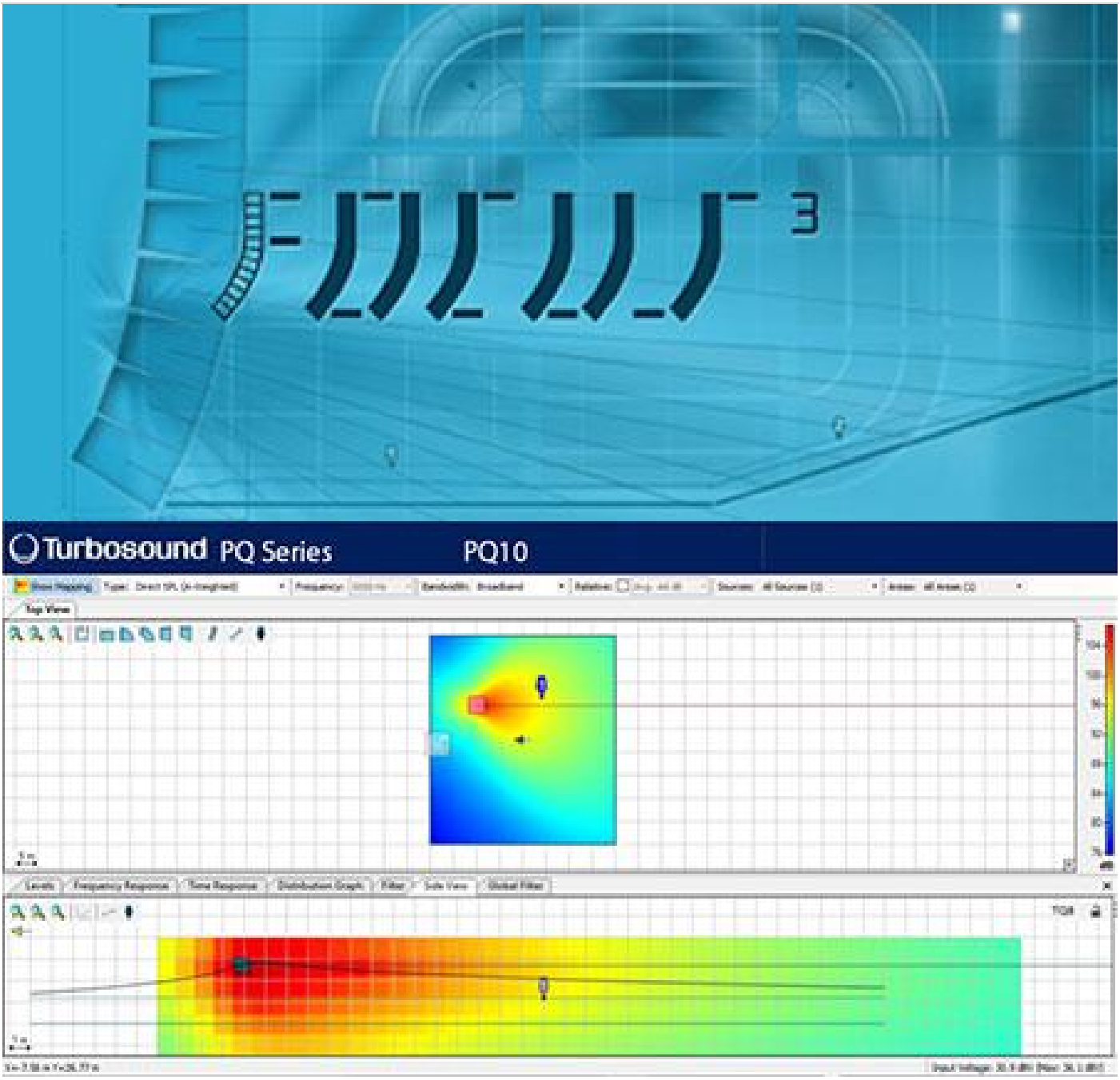
Finished in a highly durable PU semi-matt black paint, the cabinet is constructed from 15 mm (5/8") plywood – and includes a rugged powder coated cloth wrapped perforated steel mesh grille. Multiple threaded rigging points are provided for suspension in any orientation, or for mounting. Optional flying yoke, swivel brackets each available separately. The PQ10 also features a dual 35 mm socket for standard pole mounting – plus an integrated handle for convenient transport.

Custom-Engineered Drivers, Waveguides and Horns

Turbosound is recognised the world over for designing and building some of the most iconic loudspeakers and subwoofers. We take meticulous care and pride in maintaining that reputation by utilising only drivers, waveguides and horns designed and specified by ourselves to our exacting standards. Our new Catenary horn design gives an 80° x 50° dispersion for the bandwidth of the high frequency device.

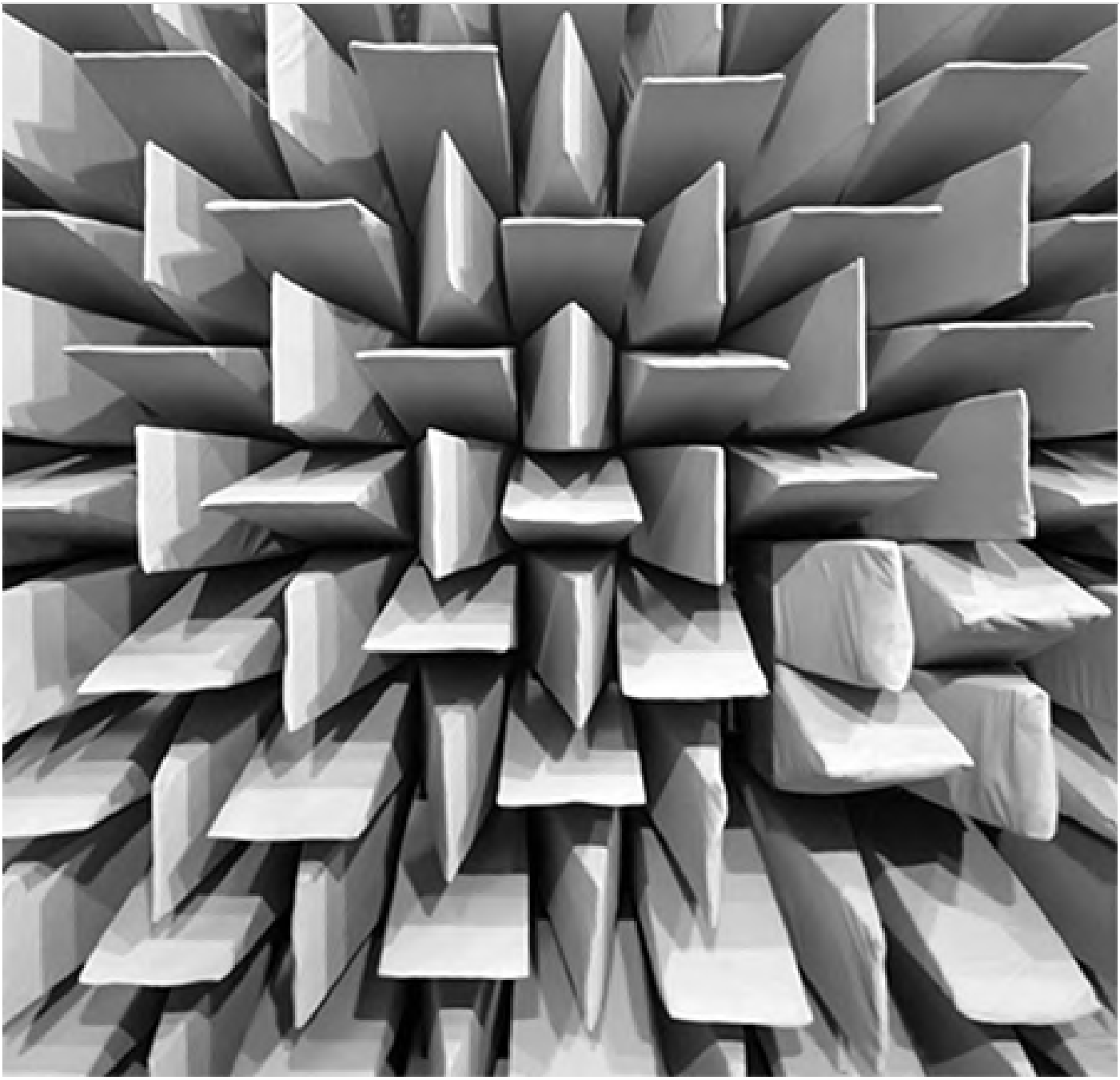
Integration with Lab Gruppen IPX 4800 and PLM+

With the ever-increasing complexity of modern-day sound systems. Seamless integration with the Lab Gruppen IPX 4800 and PLM+ is a prerequisite for the PQ series from Turbosound. Our engineers have prepared and meticulously designed a series of presets that will allow the user to achieve the maximum system performance and consistency possible. These can be found within the download section. Future FIR capable platforms from Lab Gruppen will be supported.



Acoustic Simulation Tools

EASE GLL files are provided for the EASE Focus 3 Acoustics Simulation Software, which is available for free download. This allows accurate calculation of both acoustic coverage and selection of suspension pick point for tilting and aiming the cabinet at the desired angle.



Architecture and Engineering Specifications

The speaker shall be of the full range, two-way passive type consisting of one 10" (250 mm) LF ferrite driver with 2.5" voice coil and one 1" (25 mm) HF neodymium compression driver with 1.7" voice coil. 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 ±3 dB from 80Hz to 20 kHz and within -10 dB from 50 Hz to 20 kHz. Nominal dispersion, at -6 dB points, shall average 80° H x 50° V, rotatable. Nominal impedance shall be passive: 8 Ohms.

Power handling shall be passive: 350 Watts continuous, 1,400 Watts peak. (LF: 350 W continuous HF: 50 W continuous FR: 400 W continuous) Sensitivity, measured on axis, mean averaged over the stated bandwidth, shall be 96 dB, 1 Watt @ 1 metre. Maximum SPL of 134 dB in passive mode (FR rating, Average Peak level over overlap bandwidth. SPL level at 1 m under free field conditions, using pink noise with crest factor 4, with dedicated preset).

Dimensions: 545 mm high x 340 mm wide x 320 mm deep (21.56 x 13.4, 12.6"). Net weight: 17.8kg (39.24lbs). The loudspeaker system shall be the Turbosound PQ10. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verifies that the above combined performance/size specifications are equalled or exceeded.

Specification

System

Frequency response (±3 dB)[1]	80 Hz - 20kHz
Frequency response (-10 dB)[1]	50 Hz - 20kHz
Nominal dispersion (@ -6 dB points)	80° H x 50° V
Power handling (IEC) PASSIVE	LF: 350 W continuous HF: 50 W continuous FR: 400 W continuous
Peak	LF: 1400 W peak HF: 200 W peak FR: 1600 W peak
Sensitivity (1 W @ 1 m)[1]	96 db
Maximum SPL (FR)[3]	128 dB (134 dB peak)
Impedance	8 Ω
Crossover type	Passive
Components	1 x 10" (250 mm) Ferrite LF driver
	1 x 1.75"(44.4 mm) voice coil Polymide diaphragm, Neo Motor HF compression driver

Notes:

1. Free field conditions. Measured at 1 metre on axis.

2. MT IEC 268 standard with crest factor 6 dB pink noise.

3. Calculated/Peak based on the rated FR power using pink noise with a crest factor of 4 dB, with dedicated pre-set