

TETHRA Full Power 12 inch Subwoofer

Data sheet



YOU ART. WE SOUND.



Overview

TETHRA is a ultra compact full power 12 inch subwoofer, with an operation frequency range from 30 Hz to 110 Hz at a maximum SPL of 130 dB. The primary use is together with DIVA in flown or ground stacked configurations. Anyway it can be used in general with all speaker systems where extended low frequency level down to 35 Hz is needed. The width of TETHRA is equivalent to DIVA.

The used 12 inch neodymium chassis has got a 3 inch voice coil with 28 mm linear excursion capability rated at 600 watts AES. It's optional integrated frequency modulated free floating amplifier delivers 470 watts (940 watts peak). The four tunnel bass reflex design produces a symmetric airflow by using it's integrated **APCT** „Air Pressure Control Technology“ for excellent sound at outstanding THD level.

The CCQ-0D multiframe set allows easily to attached up to 18 DIVA via quick lock pins. It allows to fly up to 4 TETHRA above 12 DIVA with a 12:1 safety factor, as well as ground stack configurations where a 8:4 ration of DIVA on TETHRA my be safely ground stacked, or equivalent divisions.

Operation

TETHRA produces a very rich sounding bass signal with an extreme linear frequency response. In clustered configurations the TETHRA subwoofer can produce a cardioid or hyper cardioid dispersion pattern with special settings on the HEIMDALL D1 digital controller, also in end fire configuration.

Applications

- Small theatres and houses of worship
- Cinema, AV or surround sound applications,
- Small indoor events or exhibition shows

Features

- High power to size ration with optional integrated fan free amplifier
- Seamless integration with DIVA line array loudspeakers
- Directional subwoofer array support via controller settings
- Easy quick lock system for fast flown or ground stacked configurations

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Technical Specifications

Transducers

- Low frequency: **12 inches** (320 mm) Neodymium
- Voice coil size and impedance: **3 inches** (77 mm) Cu, 8 ohms

Output at 1m

- **130 dB SPL** (3)
128 dB driven with PAX P16
128 dB driven with internal amps

Power Handling

- Low frequency: **2000 watts** peak
600 watts AES
1200 watts program
rec. amp power on 4 ohms
2800 watts

Crossover type and frequency

- Sub to Low: **80 Hz - 130 Hz**

Frequency and Phase response

- Usable frequency range: **30 Hz - 110 Hz**
- Free field frequency response:
44 Hz - 150 Hz
- Phase response: **+/- 45°**
from 46 Hz to 110 Hz

Coverage

- Horizontal coverage symmetrical:
Cardioid / hyper cardioid when clustered

Speakers per PAX P16 channel

- For external powered model:
2 / 4 (2) parallel via link connector

Connection

- For external powered model
2 x NL4 (1+ / 1- LF, 2+ / 2- Sens)

Mechanical specifications

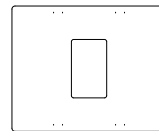
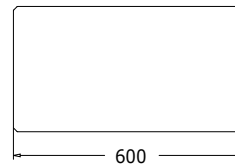
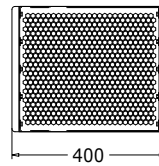
- Mounting: **4 Al side plates** with quick lock
- Working load: 70 x Speaker-weight
- Construction: **18 to 30 mm** premium baltic birch plywood, black PU structured paint, hex stamped powder coated steel grill integrated full size zinc, powder coated aluminum flying tracks, aluminum back plate. Internal amp module mounted on a 2.5 mm aluminum back plate with total passive fan free cooling.

Recommended additional Parts

- Flying frame: **Multi frame set** CCQ-0D

Size and weight

- Height: **12.8 inches** (325 mm)
- Width: **15.75 - 16.54 inches** (400 - 420 mm)
- Depth: **23.62 inches** (600 mm)
- Weight:
67.24 lbs (30.5 kg) internal powered model
62.83 lbs (28.5 kg) external powered model



Internal Amp module

Type of output stage and power supply

- **Frequency modulated FM Class-D** with floating modulator, loop back regulated output filter. Fan free.
- power supply: **toroidal**

Total output Power and Volts

- Music: 940 Watts / 87 V at 8 ohms
- **RMS: 470 Watts** / 61.3 V long-term driven with 1 kHz sine wave signal at 8 ohms

Output power on connected load

- Low frequency: **470 Watts rms**

Audio specifications

- IM: **< 0,05%**
- DIM: **< 0,005%**
- CMRR: **> 80 dB** (100 Hz) Typical **> 90 dB**

Audio input

- Connection: **XLR** female and male link
Pin 1 ground, 2 +, 3 -
- Impedance: **20 kOhms Symmetrical** between Pin 2 and 3
10 kOhms Unsymmetrical Pin 3 grounded

Ac Power specifications

- Connection: **Powercon** in and Powercon link
- Voltage and consumption:
180 - 265 VAC, 50 Hz, 1 kW

(2) possible only with short length cables.

(3) SPL max peak, test signal: pink noise with crest factor 6 dB.

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