

THOR

Directional High Power 3 x 18 inch Subwoofer

Data sheet



YOU ART. WE SOUND.



Overview

THOR is a directional high power triple 18 inch subwoofer, with an operation frequency range from 24 Hz to 110 Hz at a maximum SPL of 143.5 dB. It is intended to be used together with DARVIN in flown or ground stacked configurations. Anyway it can be used in general with all speaker systems where extended low frequency level down to 25 Hz is needed. The width of THOR is equivalent to DARVIN.

The three used 18 inch neodymium chassis have got a 4 inch voice coil with 50 mm linear excursion capability each rated at 1200 watts AES. It's optional integrated frequency modulated free floating amplifier delivers 4650 watts (9300 watts peak). The four centre tunnel bass reflex design for the two front chassis produces a symmetric airflow by using it's integrated **APCT** „**A**ir **P**ressure **C**ontrol **T**echnology“ for excellent sound with minimum THD. The rear chassis has got an equivalent bass reflex configuration using two corner tunnels. Together with very sophisticated phase manipulations through the HEIMDALL D1, THOR will produce a cardioid or hypercardioid pattern down to 30 Hz.

The CTG-2.12 multiframe, witch is the same as used for DARVIN, can be easily attached via quick lock pins. It allows to fly up to 6 THOR above 24 DARVIN with a 12:1 safety factor, as well as ground stack configurations where a 6:4 ration of DARVIN on THOR my be safely ground stacked or equivalent divisions.

Operation

THOR produces a very deep and warm sounding bass signal with an extreme linear frequence response. In various stacking configurations THOR will produce a cardioid or hyper cardioid dispersion pattern with special settings on the HEIMDALL D1 digital controller.

Applications

- Arenas, stadiums, concert halls, large theatres and houses of worship
- Touring sound reinforcement, cinemas,
- Large indoor or outdoor events

Features

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

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Technical Specifications

Transducers

- Low frequency: **3 x 18 inches** (457.2 mm) Neodymium
- Voice coil size and impedance: **4 inches** (101.6 mm) Cu, 8 ohms
- Nominal impedance: front **4 ohms** / 2 x 8 ohms
- Nominal impedance: rear **8 ohms**

Output at 1m

- **143.5 dB SPL** (3)
142 dB driven with PAX P16
142 dB driven with internal amps

Power Handling

- Low frequency: **12000 watts** peak
2400 watts front, 1200 watts rear AES
4800 watts front, 2400 watts rear program
rec. amp power on 4 ohms
2800 watts

Crossover type and frequency

- Sub to Low: **60 Hz - 100 Hz**

Frequency and Phase response

- Usable frequency range: **24 Hz - 110 Hz**
- Free field frequency response:
28 Hz - 150 Hz
- Phase response: **+/- 45°**
from 38 Hz to 110 Hz

Coverage

- Horizontal coverage symmetrical:
cardioid / hyper cardioid

Speakers per PAX P16 channel

- For external powered model:
1 / 2 front 2 / 4 rear
(2) parallel via link connector

Connection

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

Mechanical specifications

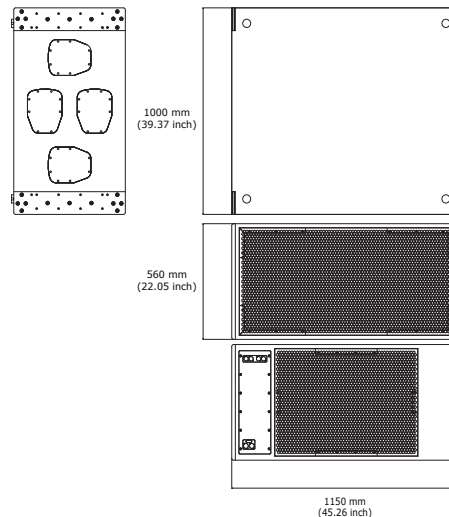
- Mounting: **4 Steel side plates** with quick lock
- Working load: 70 x Speaker-weight
- Construction: **18 to 30 mm** premium baltic birch plywood, black PU structured paint, hex stamped powder coated steel grill integrated full size zinc, powder coated steel flying tracks, 8 handles, aluminum back plate. Internal amp module mounted on a 7 mm aluminum back plate with total passive fan free cooling.

Recommended additional Parts

- Flying frame: **Multi frame** CTG-2.12
- Wheel board: Steel Wheelbase
CRB-3CD for max 3x THOR

Size and weight

- Height: **22.05 inches** (560 mm)
- Width: **45.26 inches** (1150 mm)
- Depth: **39.37 inches** (1000 mm)
- Weight:
260.15 lbs (118 kg) internal powered model
255.74 lbs (116 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: **switch mode load regulated**

Total output Power and Volts

- Music: 3 x 3100 Watts / 163 V at 8 ohms
- **RMS: 3 x 1550 Watts** / 115 V long-term driven with 1 kHz sine wave signal at 8 ohms

Output power on connected load

- Low frequency: **4650 Watts rms** (3 x 1550 W)

Audio specifications

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

Audio inute

- Connection: 2 x **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, 5 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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