

The T20i is a consequential transformation of our users requirements. A compact, 30 cm (11.8") slim 2 × 10" / 1.4" top in a symmetric construction, perfectly suitable for use in vertical and horizontal applications.

Thanks to the sophisticated driver arrangement and passive crossover the T20i has a constant directivity, in both horizontal and vertical planes. Installations where low ceilings are a challenge a conventional two-way loudspeaker is a compromise, here the T20i excels.

The T20i comes standard with a rotatable 90° × 50° horn. With the option to utilise a separate 60° × 40° horn, providing four different dispersion characteristics.

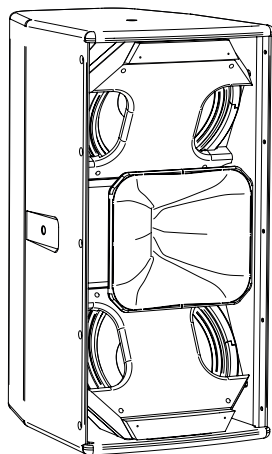
## Key Features

- » Compact installation loudspeaker with symmetrical driver arrangement
- » Equipped with 2 × 10" long excursion chassis and a 1.4" compression driver
- » 90 × 50 degree or 60 × 40 degree rotatable constant directivity HF horn
- » Horizontal and vertical installation with symmetrical dispersion possible
- » Integrated mounting threads for numerous installation possibilities
- » Coherent phase response with all TWAUDI<sup>®</sup> products
- » Operation with dedicated TWAUDI<sup>®</sup> presets on Lab.gruppen PLM/D or Powersoft K/X series

## Applications

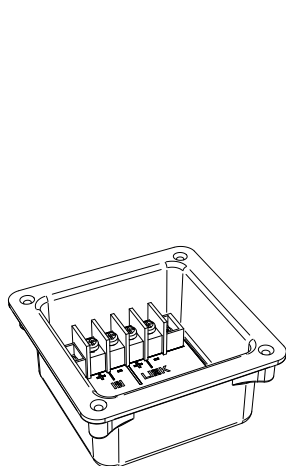
- » Full-range, standalone or with a subwoofer
- » Drum-fill or front-fill in horizontal mode
- » Side-fill in conjunction with vertical arrays
- » Delay-line
- » Main system for applications in clubs, bars, churches or TV studios
- » As distributed system in bigger installations
- » Other horizontal applications

## Technical Data

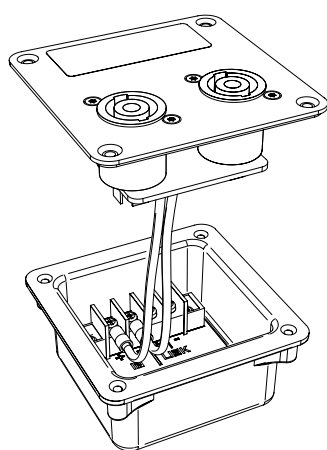


Drivers	2 × 10" LF   1 × 1.4" Exit-HF
Frequency range	60Hz - 18000Hz
Power capacity program/peak	1000/2000W
Impedance	8Ω
Coverage	90° × 50°   60° × 40° optional
Sensitivity 1W / 1m	106dB
SPLmax / 1m	138dB
Connection	screw terminal IN±   LINK±
Optional connections	speakON™ NL4   cable gland
Dimensions (H × W × D)	600 × 300 × 400mm   23.6 × 11.8 × 15.8in
Weight	23kg   50.7lbs
Finish	Warnex texture paint (RAL colors optional), polyurea coating (black) optional
Accessories	SBT20i, QBT20i, RSM10, URA20i

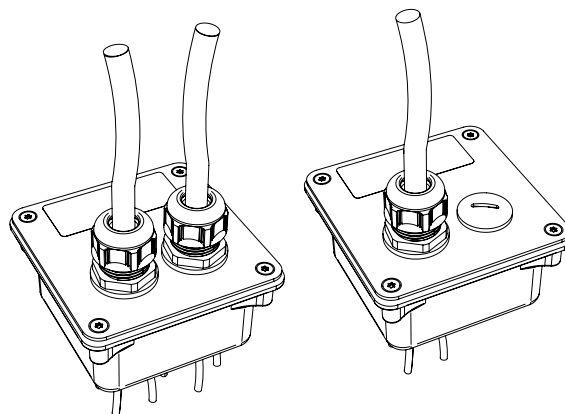
## Connections



STANDARD SCREW TERMINAL



speakON™ - OPTION  
SO top #4708



CABLE GLAND - OPTION  
CG #4324

## Notes

### Frequency range:

Loudspeaker measured with dedicated preset in full space, corner-frequencies are at -6dB in relation to the average response which is within a tolerance of +/- 3dB.

Corner-frequencies can be extended with additional EQ.

### Sensitivity:

Sound pressure level the loudspeaker generates at 1m distance to its frontgrille within its frequency bandwidth when applying 1W in respect to its nominal impedance (2.83V into 8Ohms) in full space.

### Dispersion:

Defines the nominal horizontal by vertical dispersion of the loudspeaker. Angles of nominal dispersion are defined at the points where the average SPL dropped down by -6dB compared to on axis measurement. This affects mainly the mid-high frequency range above 1kHz. HF-horns are rotatable or/and exchangeable.

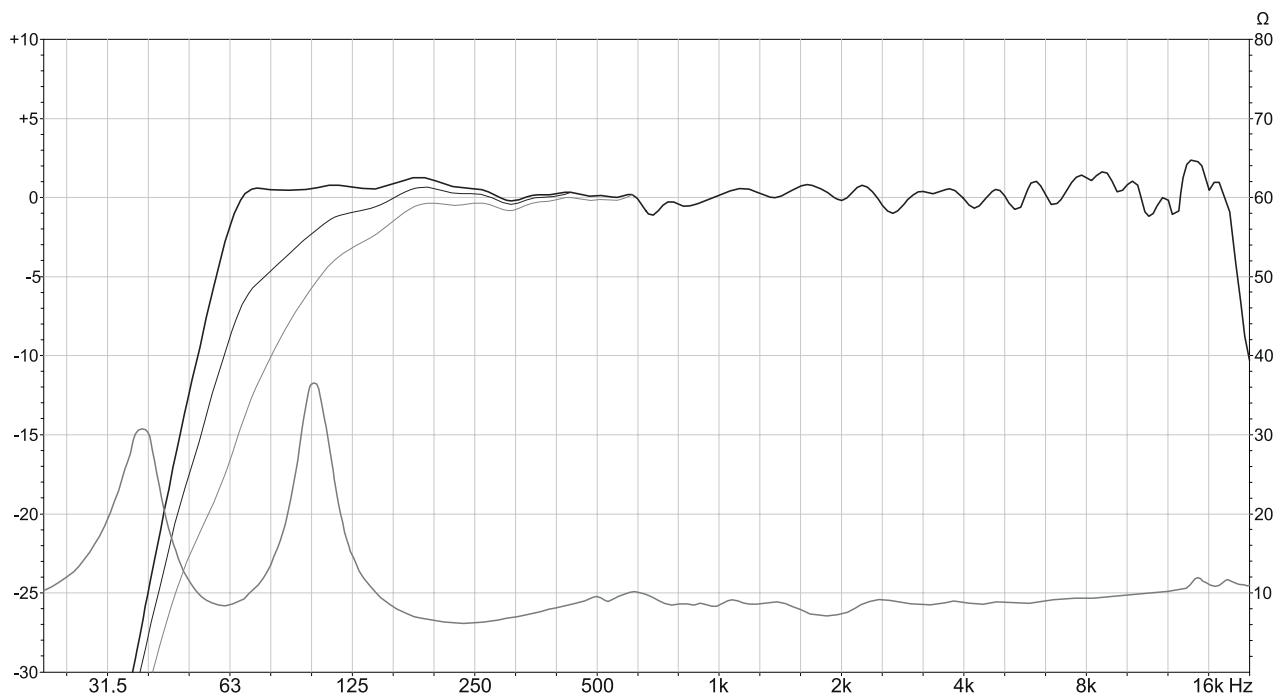
Low frequency dispersion mainly depends on the size of the sound source (loudspeaker) except in dedicated "cardioid products".

### SPLmax / 1m:

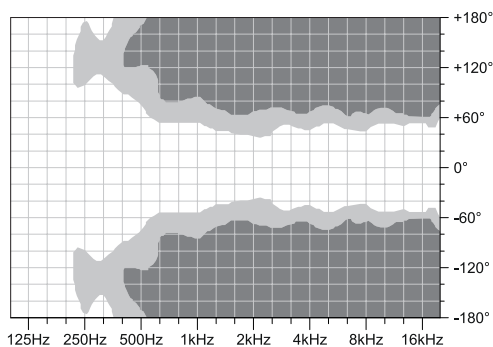
Sound pressure level the loudspeaker will generate at 1m distance to its frontgrille when applying 185ms burst signals within the frequency bandwidth slightly increasing them until 10% of total harmonic distortion will be reached (-> peak value. RMS value will be 3dB lower). Without distortion limits and with bandlimited pinknoise with Crest factor 4, the peak SPLmax levels can be up to 10dB higher at several frequencies.

Frequency response **FULL | FLAT | CUT**

IMPEDANCE

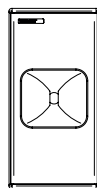


Isobar diagrams **-6dB | -12dB**

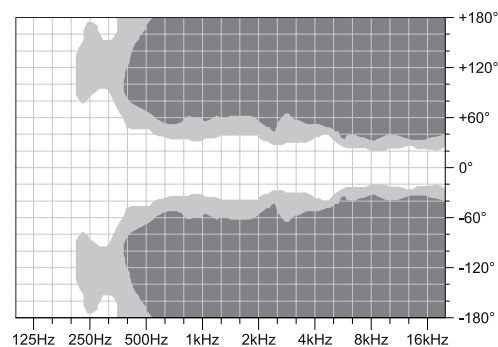


isobar diagram horizontal

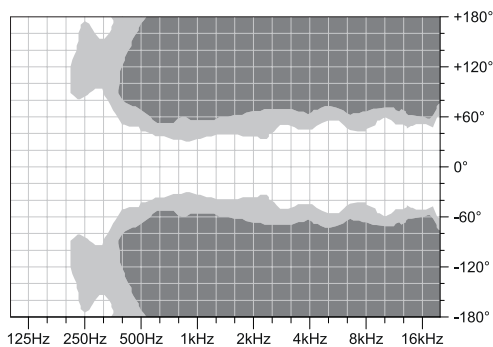
**T20i**  
upright setup



90° × 50°

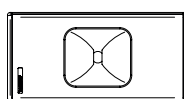


isobar diagram vertical

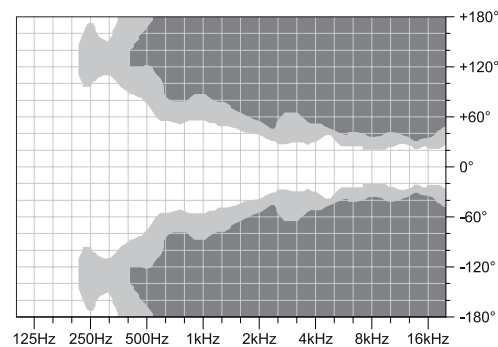


isobar diagram horizontal

**T20i**  
horizontal setup,  
horn rotated



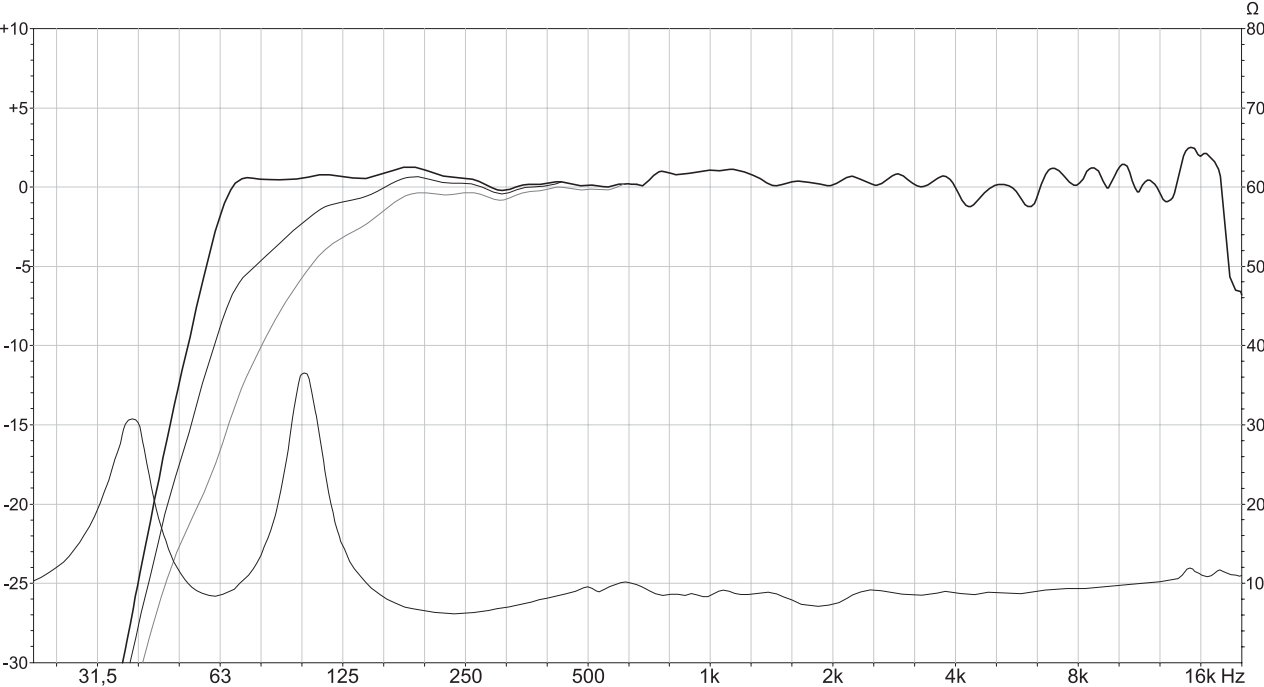
90° × 50°



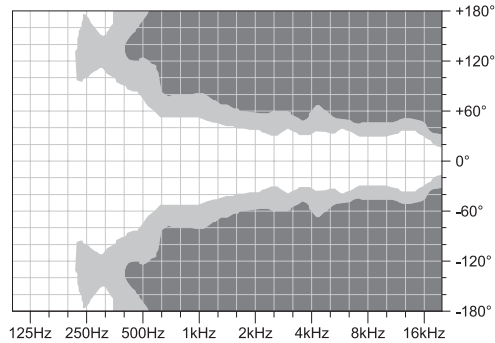
isobar diagram vertical

Frequency response **FULL | FLAT | CUT**

IMPEDANCE

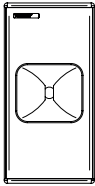


Isobar diagrams **-6 dB | -12 dB**

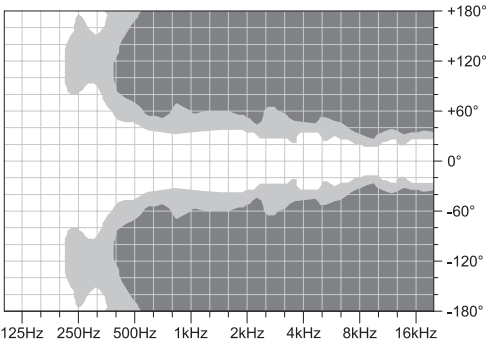


isobar diagram horizontal

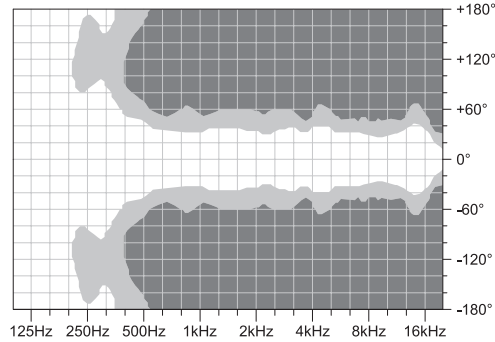
**T20i**  
upright setup



60° × 40°

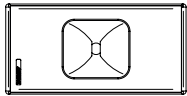


isobar diagram vertical

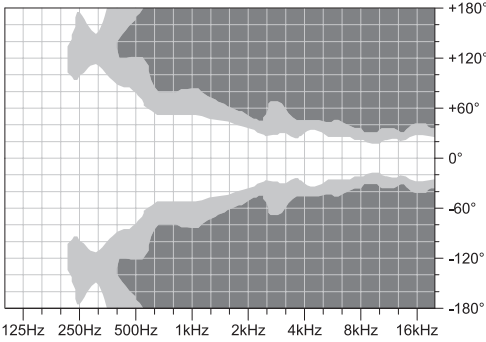


isobar diagram horizontal

**T20i**  
horizontal setup,  
horn rotated

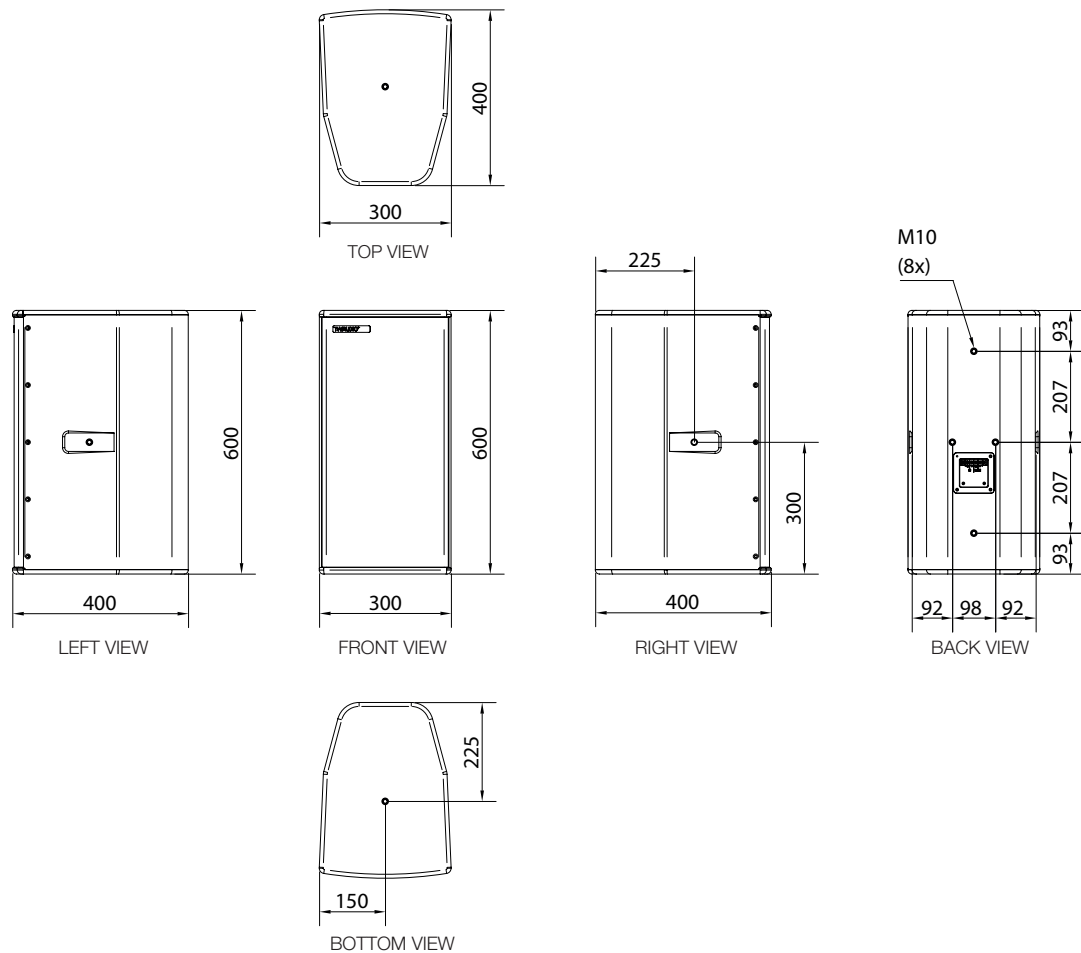


60° × 40°



isobar diagram vertical

## Technical Drawing



## Tender specification

The loudspeaker shall be of a symmetric top type design, allowing flawless performance in vertical as well as in horizontal orientation of the enclosure. It shall be a passive two way, slim sized horn in horn loudspeaker, able to be used in stacked, pole mounted or flown configurations. Its transducers shall consist of two 10-inch cone drivers and one 1.4-inch exit high frequency compression driver, being connected to a exclusive, BEM method calculation based, rotatable 90 (h) x 50 (v) degree (T20i-90) or 60(h) x 40 (v) degree (T20i-60) dispersion HF horn. All drivers shall feature a neodymium magnet assembly. Powerrating shall be: 1000W program and 2000W peak.

The loudspeaker performance specifications shall be:

Operating frequency range shall be 60Hz to 18000Hz. Nominal impedance shall be 8Ohms. Nominal sensitivity SPL shall be 106dB at 1W/1m. Maximum peak SPL shall be 138dB at 1m.

The loudspeaker shall feature a passive, phase coherence and frequency response optimised x-over.

The loudspeaker shall be operated with a DSP amplifier, using dedicated presets, which all include equalization, phase and limiting functions.

Connections shall be done with screw terminals as standard, for additional environment resistance a sealing PG type gland coverplate can be used. As alternative, a coverplate with speakON™ NLT4 connectors, the loudspeaker being connected to Pin1+/-, shall be available too. Through all options the loudspeaker shall be linkable.

All components shall be mounted in a internally braced, multi tapered enclosure, being constructed of premium birch plywood with a black (as standard, other RAL colors as option) structured finish. For discreet appearance, no handles or rubber feet shall be fitted.

M10 threads on top, bottom, back and on both sides shall serve for mounting of additional rigging and brackets. Various rigging equipment shall be available, allowing the loudspeaker to be stacked, flown and angled in any possible configuration. The front protective grille shall be made of a perforated, non reflective powder coated and durable steel, backed by flame retardant, hydrophobic and acoustically transparent black fabric.

Dimensions shall be 300mm (11.81") in width, 600mm (23.62") in height and 400mm (15.74") in depth.

Weight shall be 23.0kg (50.71 lbs).

The loudspeaker shall be the TWAUDIO T20i.

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