Oberton 15 HCX

KEY FEATURES:

- **99 db SPL 1W / 1m (LF) average sensitivity**
- **77 mm (3”) high temperature voice coil (LF)**
- **900 W AES program power (LF)**
- **Triple aluminium demodulating rings**
- **Double silicone spider**
- **Water protected cone**
- **1.4” exit HF neodymium compression driver**
- **72 mm (2.85”) HF high temperature voice coil**
- **Integrated 80 x 60 deg. dispersion horn**
- **Very light weight**

Application: Stage monitors and compact bass reflex boxes.

Description: The 15HCX is a 15" / 1.4" coaxial transducer designed for use in compact reflex enclosures and stage monitors with a nominal dispersion of 80 x 60 degrees.
The low profile, curvilinear LF cone provides smooth response within its intended frequency range.
The water prove protective coating of the cone, allowing application in a wide range of environments.
The state-of-the-art 77 mm (3 in) LF voice coil has Kapton former, which together with high temperature resistant resin ensure high reliability by high power.
A triple aluminium demodulating rings on the magnet structure reduce distortion and inductance and improve transient response.
The neodymium 1.4" exit compression driver adopted is our ND3672 model.
The HF driver diaphragm assembly, using double layer polyester dome this together with phasing plug improve linearity of frequency response in high end.
The HF magnet structure has cooper ring on the pole piece, which reduces the inductance figure of frequencies above 10 kHz, improving phase and impedance linearisation. This ensures extremely high SPL in the high end of the frequency response.

SPECIFICATIONS

Nominal diameter	388 mm (15 in)
Impedance	LF 8 Ohm /HF 16 Ohm
Minimum impedance LF	6.18 Ohm
Frequency range	50 - 16000 Hz
Dispersion angle	80 x 60 deg

LF unit

Sensitivity (200-2000 Hz)	99 dB
Power Capacity AES [1]	450 W
Program Power [2]	900 W
Voice Coil Diameter	77 mm (3 in)
Voice Coil Material	Copper
Voice Coil Former	Kapton
Voice Coil Winding Depth	20 mm
Magnet Gap Depth	9 mm
Cone Material	Paper with glassfiber
Basket	Die Cast Aluminium
Magnet	Neodymium
Flux Density	1.1 T

HF unit

Minimum impedance HF	11.10 Ohms
DC resistance	10 Ohms
Sensitivity (1000-15000 Hz)	110 dB
Power capacity (1000-20000 Hz)	75 W
Program power	150 W
Voice coil diameter	72 mm (2.85 in)
Winding material	Aluminium
Diaphragm material	sandwich polyester
Flux density	1.85 T

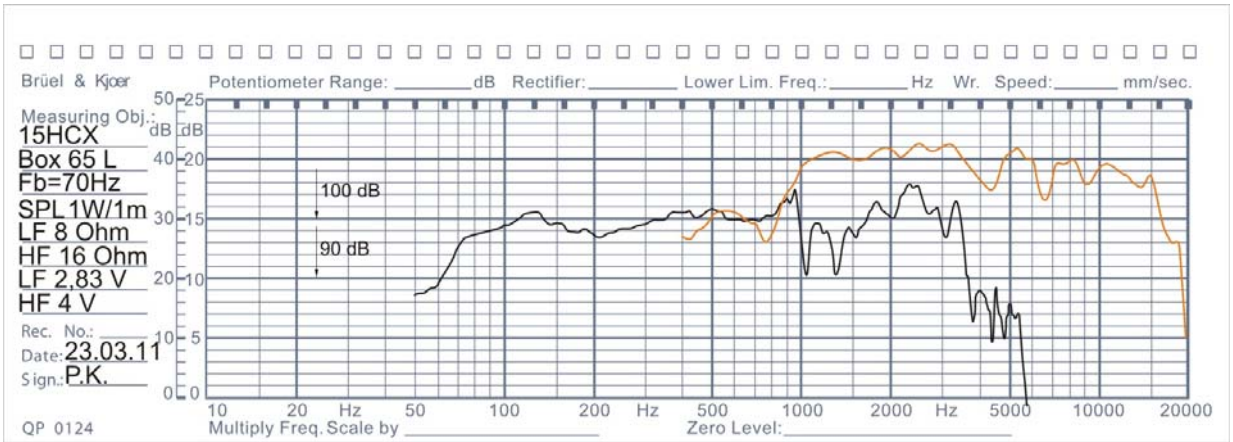
THIELE-SMALL PARAMETERS

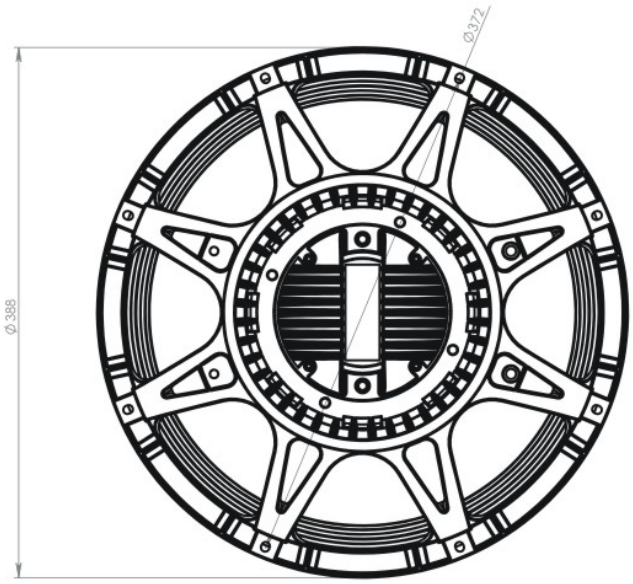
Resonance Frequency	40.72 Hz
Mechanical Efficiency Factor (Qms)	6.1
Electrical Efficiency Factor (Qes)	0.316
Total Q (Qts)	0.30
Equivalent Air Volume (Vas)	205.54 L
Diaphragm mass ind. airload (Mms)	71.41 g
Voice Coil Resistance Re	5.05 Ohms
Effective Diagram Area (Sd)	829 cm2
Peak Linear Displacement of Diaphragm (Xmax)*	± 7.75 mm
Mechanical Compliance of Suspension (Cms)	0.214 mm/N
BL Product (BL)	17.08 T.m
V.C. Inductance at 1 kHz (Le)	0.642 mH

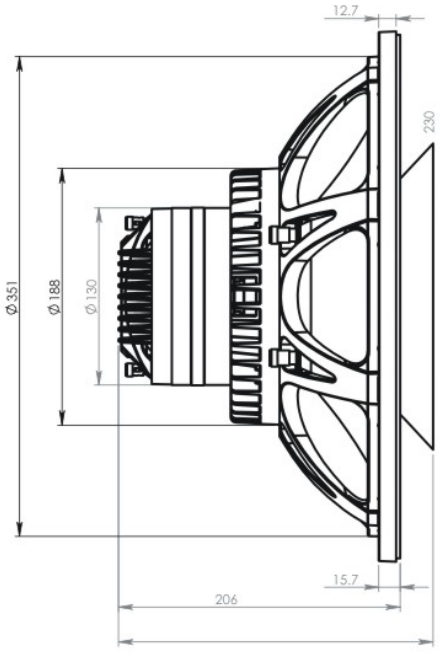
MOUNTING INFORMATION

Overall diameter	388 mm (15 in)
Depth	227 mm
Baffle hole diameter	352 mm
Bolt circle diameter	370/372 mm
Number of mounting holes	8 eliptic 7x8 mm
Net weight	6.6 kg

1. AES standard. Power is calculated on rated minimum impedance. Measurement is in 125 L box enclosure tuned 56 Hz using a 40-400 Hz band limited pink noise test signal applied continuously for 2 hours.
2. Program power is defined as 3db greater than AES Power Capacity.
** Linear Mathematical Xmax is calculated as: (Hvc - Hg)/2 + Hg/4 where Hvc is the voice coil depth and Hg is the gap depth.*







OBERTON

model: 15HCX

Dimensions are in mm | Scale: 1:3,5