VHD2.0 Technical Data Sheet

Introduction

Product code: **KVV 987 078 - VHD2.0 L (left)**
KVV 987 077 - VHD2.0 R (right)

A powerful long throw system for audiences of up to 20,000 people without requirement for additional delay systems. A three-way design featuring a 3" compression driver with NVPD treated dome assembly, two horn loaded 8" speakers featuring AIC technology and two horn loaded 12" mid-bass speakers. All speakers employ neodymium magnets to increase force, improve control and lower weight. The VHD2.0 has an 80° horizontal and 40° vertical dispersion and left and right versions of the speaker are offered in order to create larger format vertical arrays of the mid high system.

Features

- Professional Baltic birch construction with wear-resistant polymer coating
- Four full length pieces of fly-track (two per side) and two five point, pull back pieces on the rear of the cabinet
- Very High Definition audio reproduction
- 139 dB sustained output, 142dB peak
- Controlled wide dispersion 80° x 40° Mid / High horn
- New state of the art 3" (76 mm) Nitride Titanium diaphragm compression driver with complex geometry phase plug and neodymium magnetic structure for higher output, exceptionally low distortion and extended frequency response
- Two 8" Trans-Coil midrange drivers, with a 3" (76 mm) voice coil and neodymium magnet for increased control and output with reduced distortion and weight
- Two horn loaded 12" mid-bass drivers with 3" (76 mm) inside/outside, epoxy baked, high temperature voice coil assemblies and neodymium magnetic structures
- Three way active requirement - 2000W from the VHD 2000 providing 1200W for the 12" Low Mids, 600W for the 8" Midranges and 200W for the High Frequency
- Proprietary side and top handle design, (6) for simplified handling and carrying
- High impact low friction feet, allowing lock-in to the VHD subwoofers and easy cabinet movement
- Front locking aluminium VHD wheel boards with wraparound hardwood bumpers
- Weather proofing option and special paint finishes available on request

Application

Designed as an extreme high output and performance mid-hi unit as part of the VHD systems Very High Definition for live performance

- Medium to large concert venues
- Scalable from small to large systems
- Full range standalone use in public areas
- Hire and Production
- Large Theatres

System Acoustic Perfomance	
Max SPL Long-term	139dB (144dB two VHD 2.0's)
Max SPL Peak	145dB (147dB two VHD 2.0's)
-3dB Response	100Hz to 22kHz
-10dB Response	85Hz to 30kHz
Full Range mode -3dB Response	60Hz to 22kHz
Crossover Point	100Hz, 450Hz, 2.2kHz

High Frequency Section	
Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	80° x 40° / 80° x 10° (2x VHD 2.0's)
High Frequency Amplifier Requirement	200W (VHD2000 amp.)
Throat Exit Diameter / Diaphragm Size	1.4" / 3.0"
Diaphragm Material	Nitride Titanium
Magnet Type	Neodymium

Mid Range Section	
Acoustic Design	Horn Loaded
Mid Horn Coverage Horizontal / Vertical	80° x 40° / 80° x 10° (2x VHD 2.0's)
Midrange Amplifier Requirement	600W (VHD2000 amp.)
Woofer Size / Voice Coil Diameter / Design	2x 8" / 3.0" / Trans Coil
Diaphragm Material	Epoxy Reinforced Cellulose
Magnet Type	Neodymium

Mid-Bass Section	
Acoustic Design	Horn Loaded
Mid-bass Amplifier Requirement	1200W (VHD2000 amp.)
Woofer Size / Voice Coil Diameter / Design	2x 12" / 3" / Inside Outside
Diaphragm Material	Epoxy Reinforced Cellulose
Magnet Type	Neodymium

Speaker Input	
Speaker Input	AP6 male

Cabinet	
Cabinet Material	Baltic birch
Handles	6
Color	Black (wear resistant polymer coating)

Physical Dimensions	
Height	933 mm (36.72")
Width	700 mm (27.55")
Depth	495 mm (19.48")
Weight	70 kg (154.0lbs)

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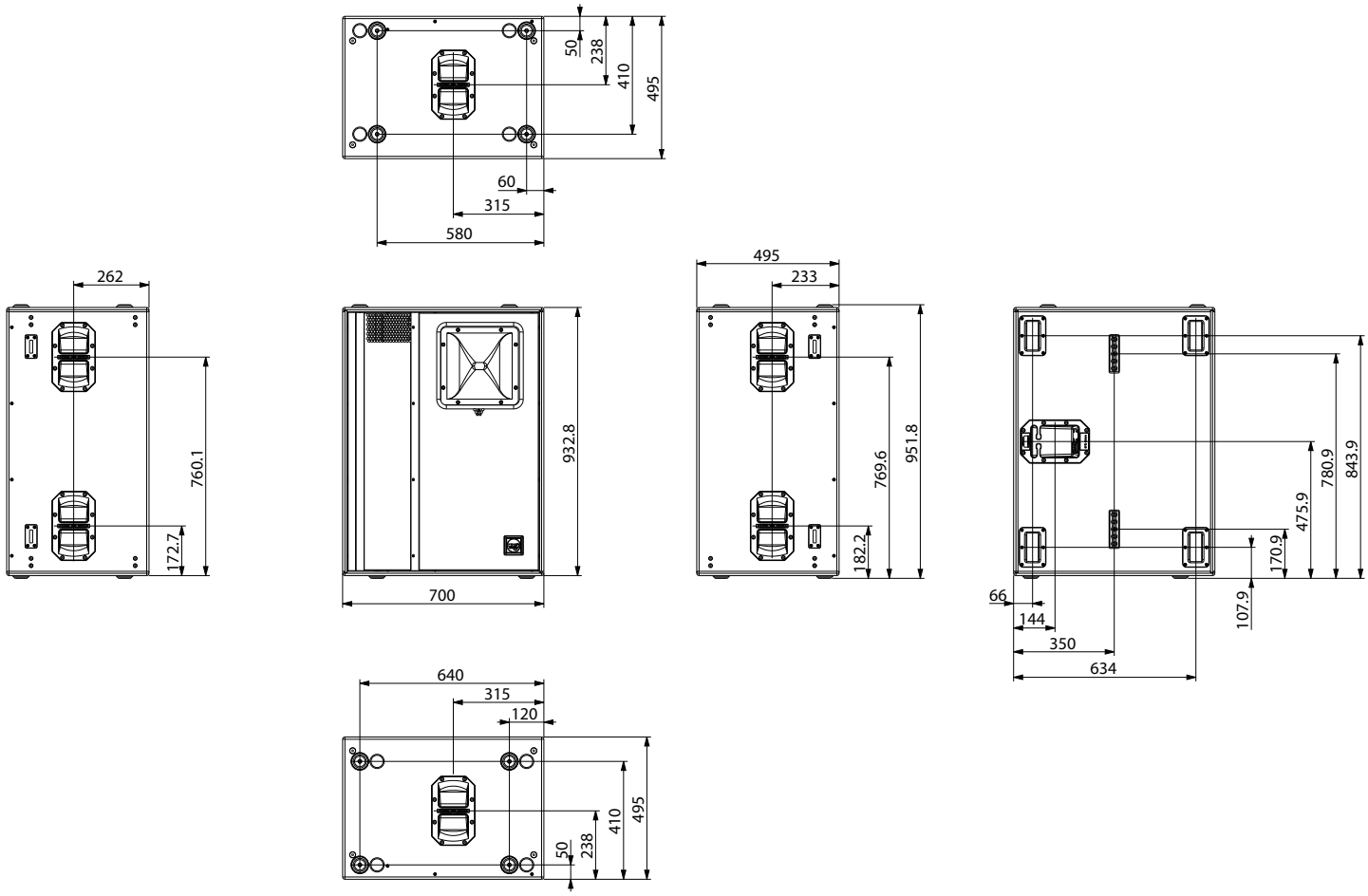
Architectural Specifications

The Loudspeaker shall be a 3-way Horn loaded design, using SLA Technology - (Super Live Audio), and shall only be driven and controlled by a dedicated – matched Amplifier Controller.
The Loudspeaker enclosure shall consist of two 12" Neodymium magnet structure Mid Bass drivers, two 8" Neodymium magnet structure Mid-range drivers featuring AIC technology and one 3" Nitride Titanium Compression driver mounted to a low compression horn assembly. The cabinet enclosure shall be made from re-enforced Baltic Birch Ply, with toughened impact and wear resistant paint finish. The Loudspeaker woofer components shall be protected by an acoustically transparent rigid metal grille supported by absorbent rubber seals. The enclosure shall incorporate two ergonomically designed recessed handles in each side panel and shall incorporate an additional single handle on the top and bottom. The enclosure shall incorporate two Aeroquip fly track rails on each side panel and two short pull back fly track rails on the center point of the rear panel to facilitate overhead vertical singular and multiple enclosure suspension by employment of a dedicated FLYBAR System. The enclosure shall incorporate a recessed connection panel with integral cable secure point and will be fitted with a single input Amphenol AP6 locking connector. The enclosure shall incorporate four corner recessed wheel troughs on the rear panel to facilitate stacking for wheeled movement and transportation and shall include four recessed Butterfly clip receptacles on each side panels for attachment of a protective Wheel board. The enclosure shall include four high impact, low friction feet on the top and bottom panel to allow enclosure locking into other VHD cabinets and easy movement.
The Loudspeaker shall have a maximum long term pressure level of 139dB, have a total peak power handling capacity of 2000W, with a nominal Horizontal dispersion of 80 deg and a Vertical of 40 deg and have a measured on axis frequency response of 100Hz to 22KHz (-3dB), 85Hz to 30kHz (-10dB).
The Enclosure dimensions shall be: 933 mm / 36.72" x 700 mm / 27.55" x 495 mm / 19.48"
The Enclosure shall not exceed a weight of 70 kg / 154.0lbs.
The Loudspeaker shall be the KV2 Audio VHD2.0. The dedicated Amplifier/Controller shall be the KV2 Audio VHD2000.
The dedicated fly ware shall be the VHD FLYBAR System.

Dimensional Drawings



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