

VHD4.21/ VHD4.21R Technical Data Sheet

Introduction

Originally developed for Super Live Audio within the VHD system, the VHD4.21 / VHD4.21R subwoofer is voiced for live music yet excels equally in high-energy club and dance applications. Operating down to 28 Hz, they integrate seamlessly with other VHD products, the smaller ES range, or can serve as exceptionally powerful stand-alone subwoofers capable of complementing any other manufacturer’s system. Unlike traditional 21” and dual-21” subwoofers typically designed more for effect than precision, the VHD4.21 / VHD4.21R delivers tight, fast transient response and extreme dynamics, even at higher bass frequencies — qualities rarely found in units of this size. Despite its output capability, it remains consistent with KV2’s philosophy of maximum performance from a compact footprint. The VHD4.21/VHD4.21R operates at 4 Ω, providing extremely high output capability for large-format and high-demand applications. Two VHD4.21/R units in parallel can be driven by a single VHD7000D. Flyable versions — VHD4.21R — are available, featuring additional fixings and compatibility with the VHD4.21 / VHD2.21 Flybar (KVV 987 398). For applications requiring an 8 Ω configuration, KV2 offers the VHD2.21 / VHD2.21R, which deliver comparable performance characteristics in an alternative impedance option. One VHD2.21 (8 Ω load) can be driven by a single VHD3200/R in bridge mode.

Features

- Designed in response to calls for a high output ultra low frequency subwoofer solution
- Double 21" subwoofer with an input power handling capability of 3500W
- Frequency response from 28Hz through to 240Hz
- A flyable version available - VHD4.21R (KVV 987 558) with additional fixings and requirements for the VHD4.21 / VHD2.21 Flybar (KVV 987 398).

Product code: **KVV 987 548 – VHD4.21**
KVV 987 558 – VHD4.21R



Application

Specifically engineered to deliver exceptional low-frequency extension into the lowest octave, combined with extremely high output, for use with VHD systems or other KV2 Audio loudspeaker systems.

- Large-scale live music and playback applications
- Rental and production environments
- Large concert venues
- Cinema sound systems
- Nightclubs and entertainment venues
- Permanent and fixed installations

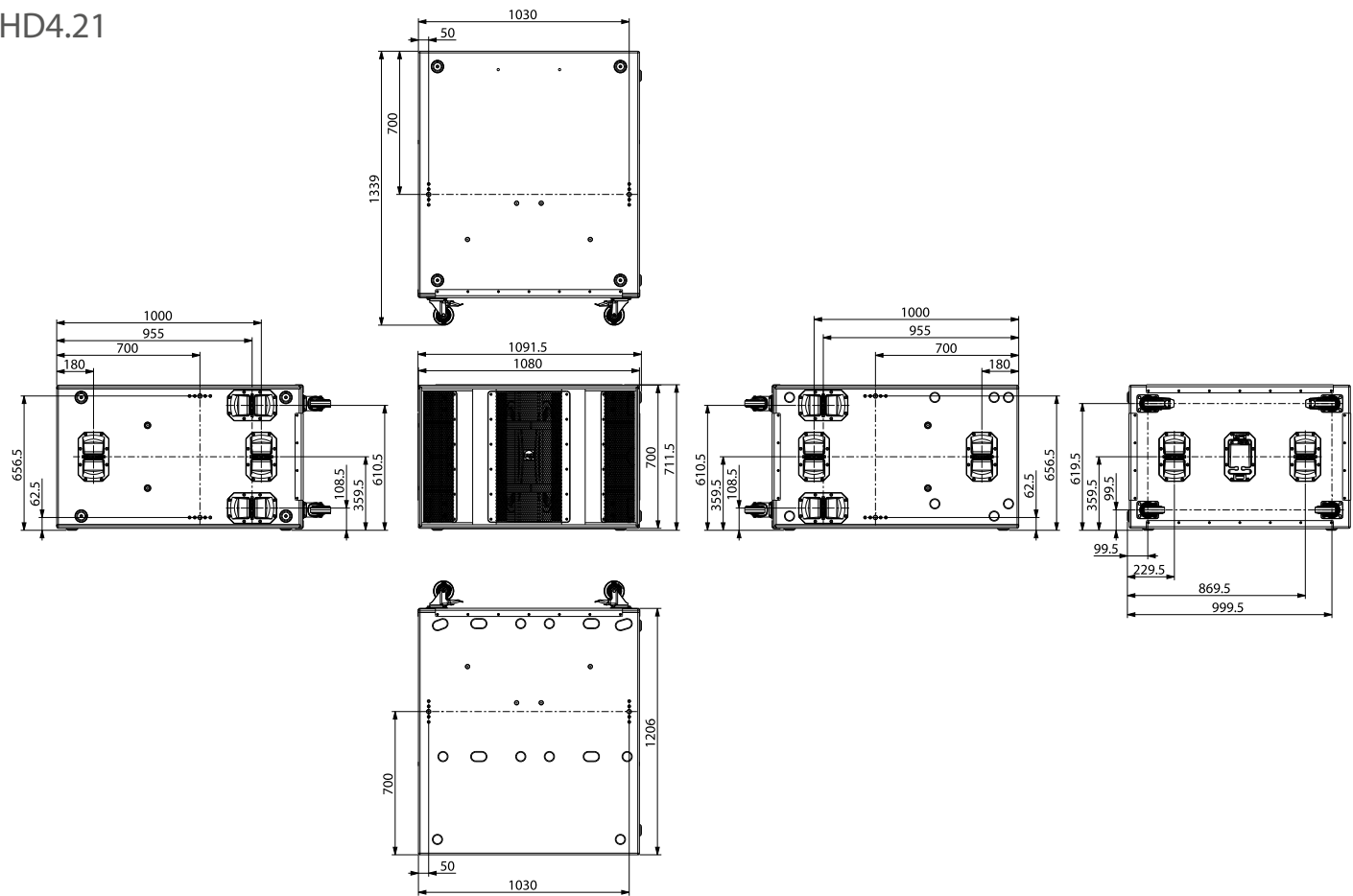
System Acoustic Performance	
Max SPL Long-term	147 dB (2× VHD4.21)
Max SPL Peak	153 dB (2× VHD4.21)
-3 dB Response	34 Hz to 180 Hz
-10 dB Response	28 Hz to 240 Hz
Impedance	4 Ω
Crossover Point	60 Hz to 120 Hz
Low Frequency Section	
Acoustic Design	Bandpass with low port losses
Low Frequency Amplifier Requirement	3 500 W
Woofer Size / Voice Coil Diameter	2× 21" / 6"
Magnet Type	Neodymium Advanced Ventilated
Diaphragm Material	Epoxy Reinforced Cellulose

Speaker Input	
Speaker Input	AP4
Cabinet	
Cabinet Material	Baltic birch
Handles	10
Color	Black (wear resistant polymer coating)
Physical Dimensions	
Height	700 mm (27.56")
Width	1 080 mm (42.52")
Depth	1 340 mm (52.76")
Weight	155 kg (341.7 lb) / 158 kg (348 lb)

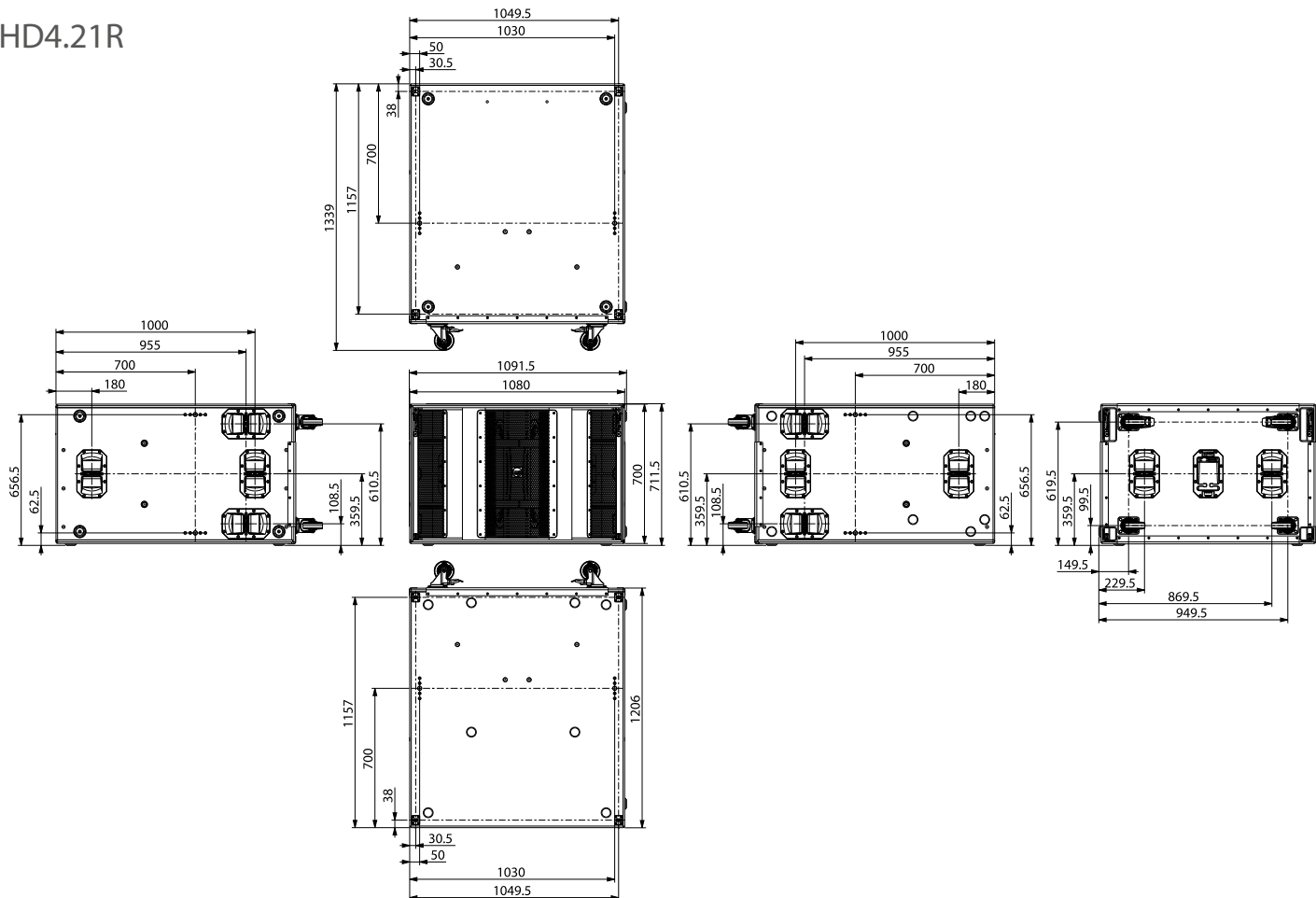
VHD4.21/VHD4.21R Technical Data Sheet

Dimensional Drawings

VHD4.21



VHD4.21R



VHD4.21/ VHD4.21R Technical Data Sheet

Architectural Specifications

The loudspeaker system shall be the KV2 Audio VHD4.21 / VHD4.21R.

The loudspeaker system shall be a passive high-performance subwoofer enclosure, designed for professional sound reinforcement applications requiring extremely high output, extended low-frequency response and precise transient performance.

The subwoofer enclosure shall incorporate two 21-inch low-frequency drivers, each utilizing advanced neodymium magnet structures and large-format voice coils, optimized for high power handling, low distortion and exceptional dynamic control.

The acoustic design shall be a band-pass enclosure with low port losses, engineered to deliver tight, fast transient response and extended low-frequency performance down to 28 Hz, while maintaining clarity and control at higher bass frequencies.

The loudspeaker system shall have a nominal impedance of 4 Ω and shall be intended for use with a suitable external professional power amplifier and system controller providing appropriate crossover, filtering and protection functions.

The enclosure shall be constructed from high-grade reinforced Baltic birch plywood, incorporating internal structural bracing to ensure maximum rigidity and minimal resonance. The exterior finish shall be a durable, impact- and wear-resistant polymer coating suitable for touring and fixed installation environments.

The low-frequency drivers shall be protected by acoustically transparent heavy-duty steel grilles, mounted with vibration-damping seals.

The enclosure shall include multiple ergonomically designed recessed handles to facilitate safe handling and positioning. High-impact, low-friction feet shall be provided to allow secure stacking and mechanical coupling with other VHD system enclosures.

The loudspeaker enclosure shall be equipped with professional-grade loudspeaker input connectors (AP4), suitable for high-current signal transmission in demanding applications.

A flyable version, VHD4.21R, shall be available, incorporating additional structural fixings compatible with the VHD4.21 / VHD2.21 Flybar (KVV 987 398) for safe suspension in permanent or temporary installations.

The loudspeaker system shall deliver a maximum long-term sound pressure level of 143 dB and a maximum peak sound pressure level of 149 dB (when used in a dual-enclosure configuration), with a frequency response of 34 Hz to 180 Hz (–3 dB) and 28 Hz to 240 Hz (–10 dB).

The enclosure dimensions shall be 700 mm (27.56") high $\times$ 1080 mm (42.52") wide $\times$ 1340 mm (52.76") deep, and the enclosure weight shall not exceed 155 kg (341.7 lb) for the standard version and 158 kg (348 lb) for the flyable version.

For applications requiring an 8 Ω impedance configuration, an alternative solution shall be available in the form of the KV2 Audio VHD2.21 (KVV 987 249) and VHD2.21R (KVV 987 496), providing comparable performance characteristics in an 8-ohm design and full compatibility with VHD system accessories and rigging hardware.

