SXH218

Hybrid® Horn/Reflex Subwoofer

Features

- Ultra-high output ground-stacked subwoofer
- Hybrid® horn/reflex loading for maximum acoustic efficiency and low frequency extension
- Dual long-excursion 18" (460mm)/4.5" (115mm) voice coil neodymium drivers
- Forward or rear-facing operation

Applications

- Outdoor festivals
- Stadiums, arenas and theatres
- Concert halls
- Nightclubs



The SXH218 is an extremely powerful subwoofer capable of producing 148dB peak output at 1m. It is the ideal partner for Wavefront Precision WPC arrays where maximum low frequency output is required as well as a standalone solution for premium permanent installations such as nightclubs.

Its Hybrid® horn/reflex loading combines the acoustic efficiency and impact of bass horn technology with the low frequency extension of a reflex design, enabling it to produce significantly higher output levels than a traditional reflex-loaded subwoofer. With an operating range of 32-150Hz + 3dB, it features dual long-excursion 18" (460mm)/4.5" (115mm) voice coil neodymium drivers, with water resistant cones and triple roll surrounds.

The enclosure is constructed from multi-laminate plywood and coated with hard-wearing textured black polyurea. A rigid perforated steel grille protects the front of the enclosure, while interlocking skids protect the top and bottom surfaces and prevent movement when stacked.

The SXH218 can be powered by either a single channel of a Martin Audio iK42 4-channel amplifier, or a bridged pair if maximum output is required. Its connector sockets are wired so that one four-core cable from the amplifier will power two SXH218's. SXH218 settings are determined by a pre-determined parameter set in Vu-Net when used in conjunction with iK42, or settings are available from the Martin Audio website when used with alternative amplifiers.

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MARTIN AUDIO
LONDON

www.martin-audio.com

SXH218

Hybrid® Horn/Reflex Subwoofer

Technical Specifications

TYPE	Hybrid® horn/reflex subwoofer
FREQUENCY RESPONSE (1)	32Hz – 150Hz ±3dB, -10dB @ 27Hz
DRIVERS	2 x 18" (460mm)/4.5" (115mm) voice coil,
	long excursion, neodymium magnet, waterproof cone
RATED POWER (2)	3000W AES, 12000W peak
RECOMMENDED AMPLIFIER	iKON iK42
SENSITIVITY (10)	107dB
MAXIMUM SPL(9)	148dB peak
NOMINAL IMPEDANCE	4 Ohms
DISPERSION (-6dB)	Omnidirectional/or Cardioid (paired)
ENCLOSURE	Multi-laminate birch/poplar ply
FINISH	Textured Black Polyurea
PROTECTIVE GRILLE	Black perforated steel
CONNECTORS	2 x NL4
PIN CONNECTIONS	Input: +1/-1, refer to input panel for four-core cable link diagram
FITTINGS	Two skids on base, with mating channels on top
	Four rear-mounted 100mm (4in) castors
	6 x bar handles, 3 on each side
	4 x fittings for optional transit cover
DIMENSIONS (INCL SKIDS)	(W) 1112mm x (H) 607mm x (D) 1013mm
	(1140mm including castors)
	(W) 43.8in x (H) 23.9in x (D) 39.9in (44.9in including castors)
WEIGHT	120kg (164lbs)
ACCESSORIES	Transit cover

Architectural Specifications

The loudspeaker shall be a subwoofer consisting of two 18"/4.5" voice coil, long-excursion, low frequency transducers in a hybrid horn/bass reflex configuration. The on-axis frequency response shall be 32Hz-150kHz +/- 3dB and the loudspeaker shall produce a maximum SPL of 148dB peak calculated at 1 metre.

Power handling shall be 3000W AES, 12000W peak. Rated impedance shall be 4 ohms. The rear connector panel shall be fitted with two NL4 type connectors and the loudspeaker shall be operated in conjunction with a dedicated controller amplifier.

The loudspeaker shall be capable of forward and rear-facing operation to enable the construction of ground-stacked subwoofer arrays.

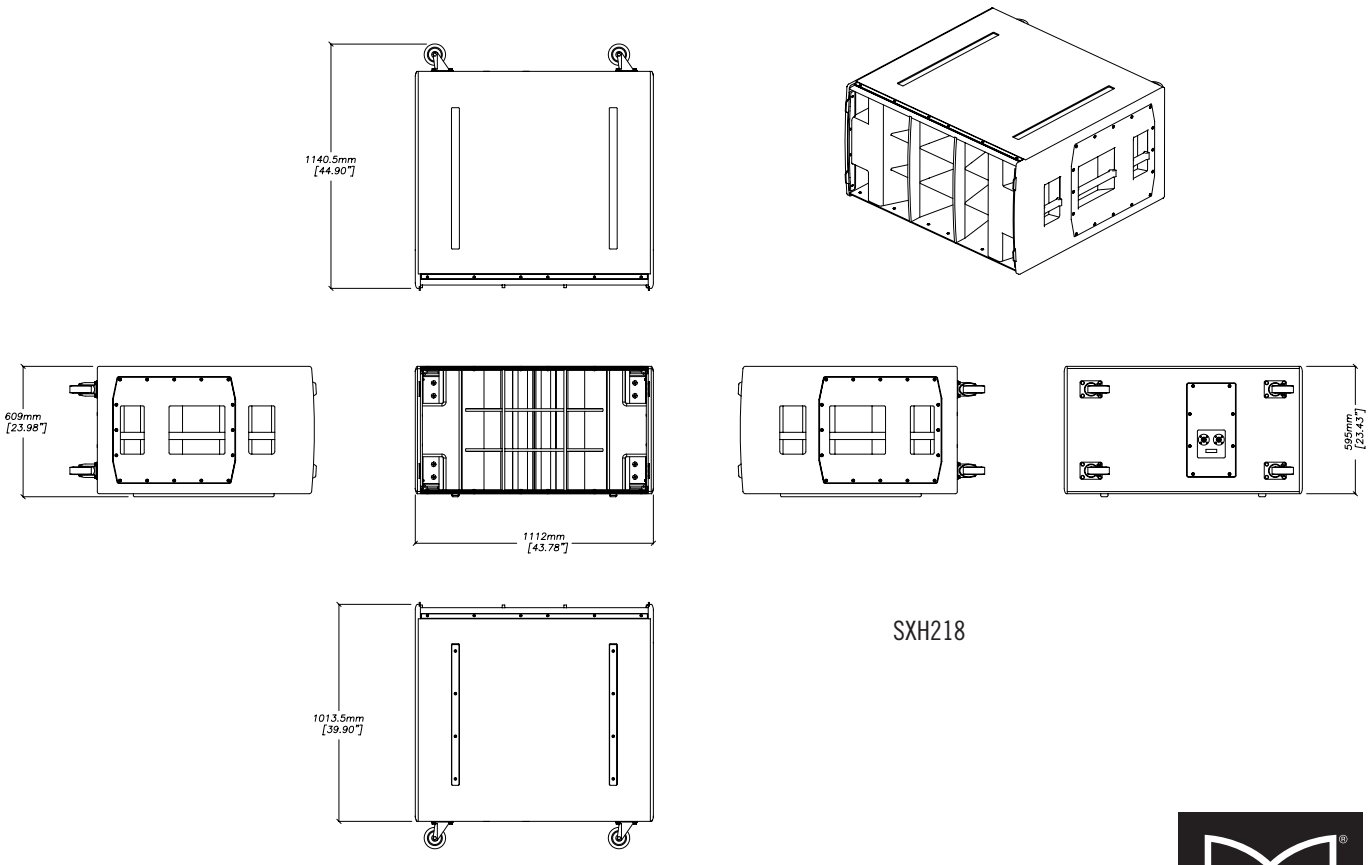
The loudspeaker enclosure shall be constructed from multi-laminate plywood with a textured black polyurea coating. The drivers shall be protected by a perforated steel grille and the enclosure shall be fitted with bar handles and skids.

Dimensions including skids, excluding castors (W x H x D) shall be 1112mm x 607mm x 1013mm (43.8in x 23.9in x 39.9in). Dimensions including skids and castors (W x H x D) shall be 1112mm x 607mm x 1140mm (43.8in x 23.9in x 44.9in). Weight shall be 120kg (164lbs).

The loudspeaker shall be the Martin Audio SXH218.

Notes

(1) Measured on-axis in half (2pi) space at 2 metres, then referred to 1 metre.
(2) AES Standard ANSI S4.26-1984.
(3) Measured in half (2pi) space at 2 metres with 1 watt input, using band limited pink noise, then referred to 1 metre.
(4) Measured in half (2pi) space at 2 metres using band limited pink noise, then referred to 1 metre.
(5) Measured on-axis in open (4pi) space at 2 metres, then referred to 1 metre.
(6) Measured in open (4pi) space at 2 metres with 1 watt input, using band limited pink noise, then referred to 1 metre.
(7) Measured in open (4pi) space at 2 metres using band limited pink noise, then referred to 1 metre.
(8) Measured in open (4pi) space at 2 metres with 2.83v input, using band limited pink noise, then referred to 1 metre.
(9) Calculated at 1 metre.
(10) Measured in half (2pi) space at 2 metres with 2.83V input, using band limited pink noise, then referred to 1 metre.



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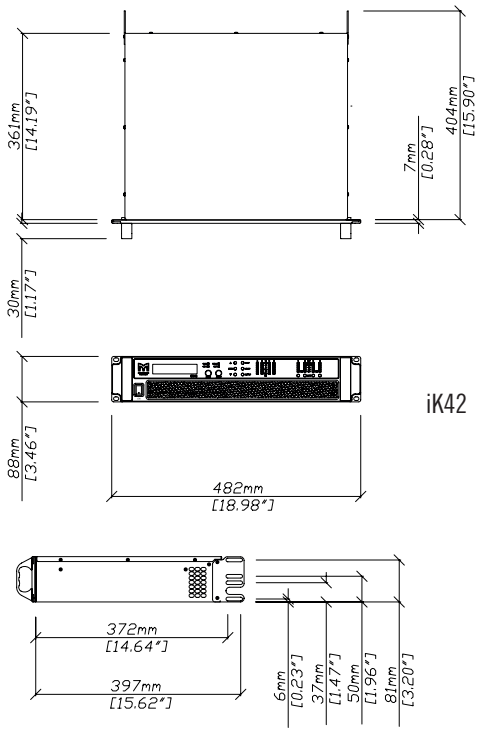
SXH218

Hybrid® Horn/Reflex Subwoofer

Recommended Amplifier Technical Specifications

iK42 Amplifier

General	
TYPE	Four-channel Class D amplifier
POWER OUTPUT	4 x 5000W into 2 ohms, all channels driven
	4 x 3000W into 4 ohms, all channels driven
	4 x 1500W into 8 ohms, all channels driven
DIGITAL SIGNAL PROCESSING	96kHz DSP on all inputs and outputs
COOLING	Dual vari-speed fans, front-to-back airflow
MAXIMUM AMBIENT TEMPERATURE	40°C (104°F)
Audio Inputs/Outputs	
ANALOGUE IN/LINK (4 CHANNELS)	4 x female, 4 x male Neutrik™ XLR
ANALOGUE INPUT IMPEDANCE	20kΩ balanced to ground
MAXIMUM ANALOGUE INPUT LEVEL	+20dBu
NOMINAL SYSTEM GAIN	32dB
AES3 IN/LINK (2 CHANNELS)	1 x female, 1 x male Neutrik™ XLR, balanced
DANTE™ (4 CHANNELS)	2 x shielded RJ45, primary and secondary
AMPLIFIER OUTPUTS	4 x Neutrik Speakon™ NL4
Control and Monitoring Network	
PROTOCOL	Ethernet
CONTROL APPLICATION	Martin Audio VU-NET™
Power Supply	
TYPE	High performance Series Resonant
AC INPUT OPERATING RANGE	85 – 240V ~ AC, 47 - 63Hz
MAINS INRUSH CURRENT	6A at 115V, 12A at 230V (max for <10ms)
MAINS CONNECTOR	Neutrik 32A Powercon™
Physical	
DIMENSIONS	(W) 483 x (H) 2U/89mm x (D) 357mm
	(W) 19in x (H) 2U/3.5in x (D) 14.1in
	incl handles and optional rear support
WEIGHT	12.5kg (27.5lbs)





Trade Descriptions Act
Due to Martin Audio's policy of continuing improvement, we reserve the right to alter these specifications without prior notice. Martin Audio is committed to refining state of the art sound reinforcement, combining in-depth product and field applications research with advanced manufacturing techniques. Every Martin Audio product is built to the highest manufacturing standards and rigorously tested to ensure that it meets the performance criteria specified in the design.

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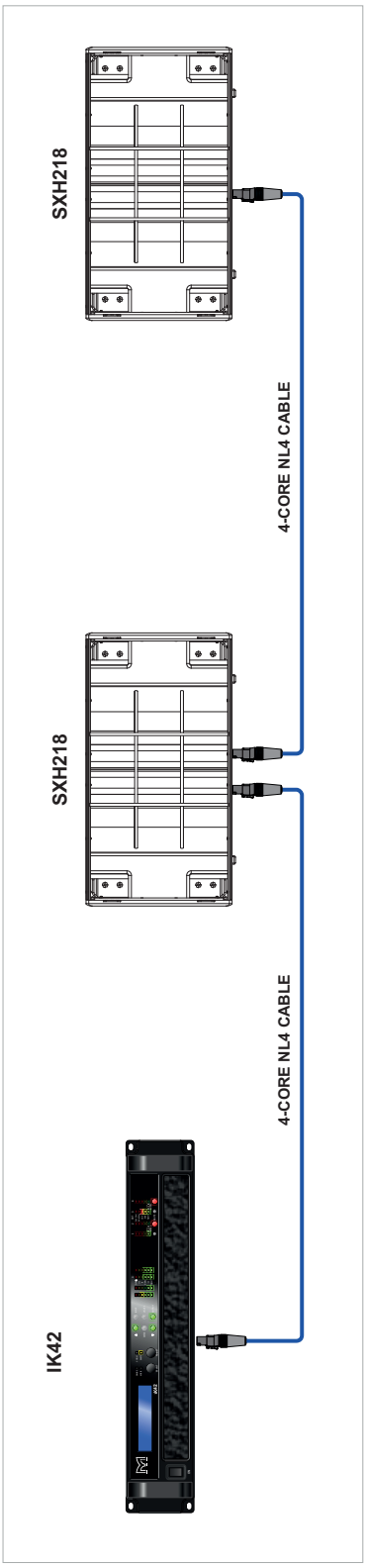
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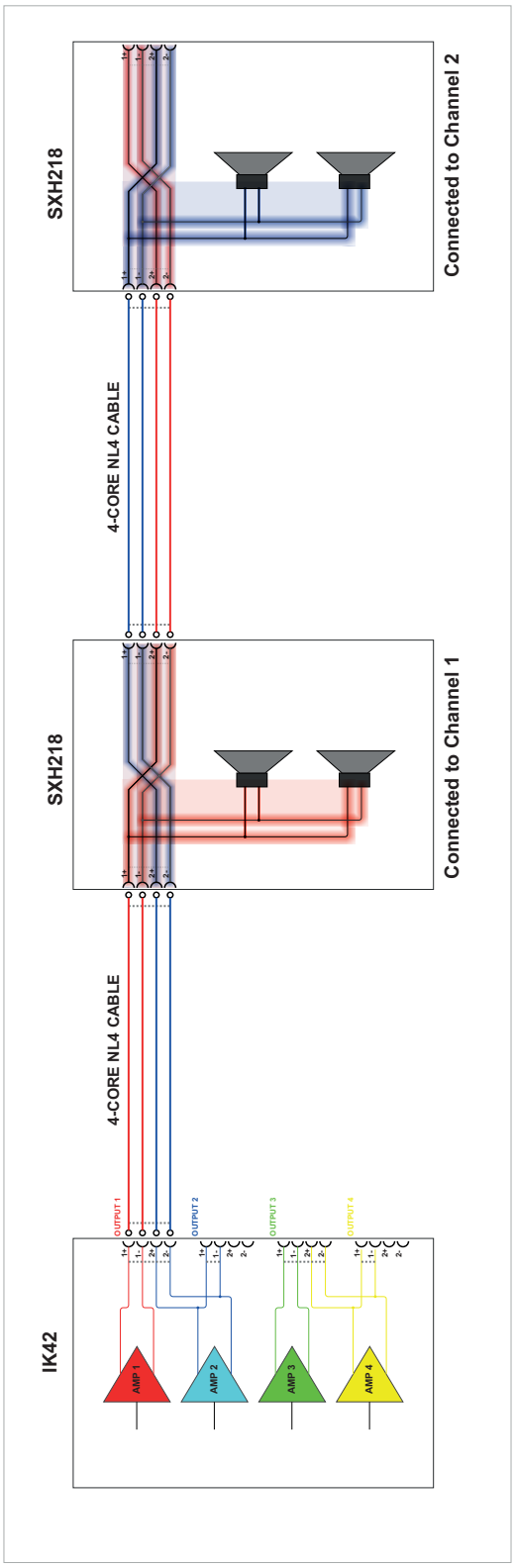
SXH218

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Wiring Two SXH218s from independent channels of an iK42 with 4-core speaker cables



SCHEMATIC



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