

SXC118

Compact, High Performance Cardioid Subwoofer



Features

- Compact, cardioid subwoofer
- Front facing 18" (460mm)/4" (100mm) voice coil driver
- Rear facing 14" (356mm)/3.5" (88mm) voice coil driver
- Cardioid dispersion pattern
- 28dB rear rejection at 75Hz
- High output capability
- Tour-grade plywood enclosure with flying inserts

Designed for touring sound and installations, the SXC118 is a compact, high performance cardioid subwoofer. It features an 18" (460mm) forward facing driver and a 14" (356mm) rear facing driver, each driven independently by separate amplifier channels and DSP. Each driver has its own chamber with optimised bass reflex porting.

This arrangement produces a cardioid dispersion pattern which maximises the front radiation and reduces unwanted radiation behind the subwoofer. The recommended iK42 amplifier optimises the DSP parameters for front and rear drivers to maximise the rear rejection — from 21dB at 43Hz to 28dB at 75Hz. This keeps low frequencies away from stages, turntables and walls as well as reducing reverberant energy in the room, greatly improving the system's low frequency response accuracy and impact.

In front of the enclosure, the output from the two drivers is additive, giving an extra 2dB of output when compared with a conventional 1 x 18" subwoofer.

Applications

- Live sound reinforcement
- Fixed installations including live event venues and nightclubs
- Theatre sound
- Corporate AV events
- Acoustically-challenging rooms
- Outdoor restaurant, bar and hotel entertainment areas
- Concourses and Theme Parks

The enclosure is constructed from plywood and finished with a hard-wearing textured paint. It is equipped with four grab handles and foam-backed perforated steel grilles protect the front and rear drivers. It can be used individually, stacked or flown individually by means of threaded flying inserts.

The SXC118 is an ideal partner for WPS and WPM line arrays or our range of point source loudspeakers where low frequency pattern control is required. Interlocking skids prevent movement when stacked and a threaded plate in the top surface facilitates pole-mounting of up to 4 WPM enclosures or a singular point source enclosure. The product is supplied as standard without castors but they can be purchased as an accessory.

By adding the input board cover accessory, the subwoofer is fully weather resistant and suitable for permanent outdoor usage.

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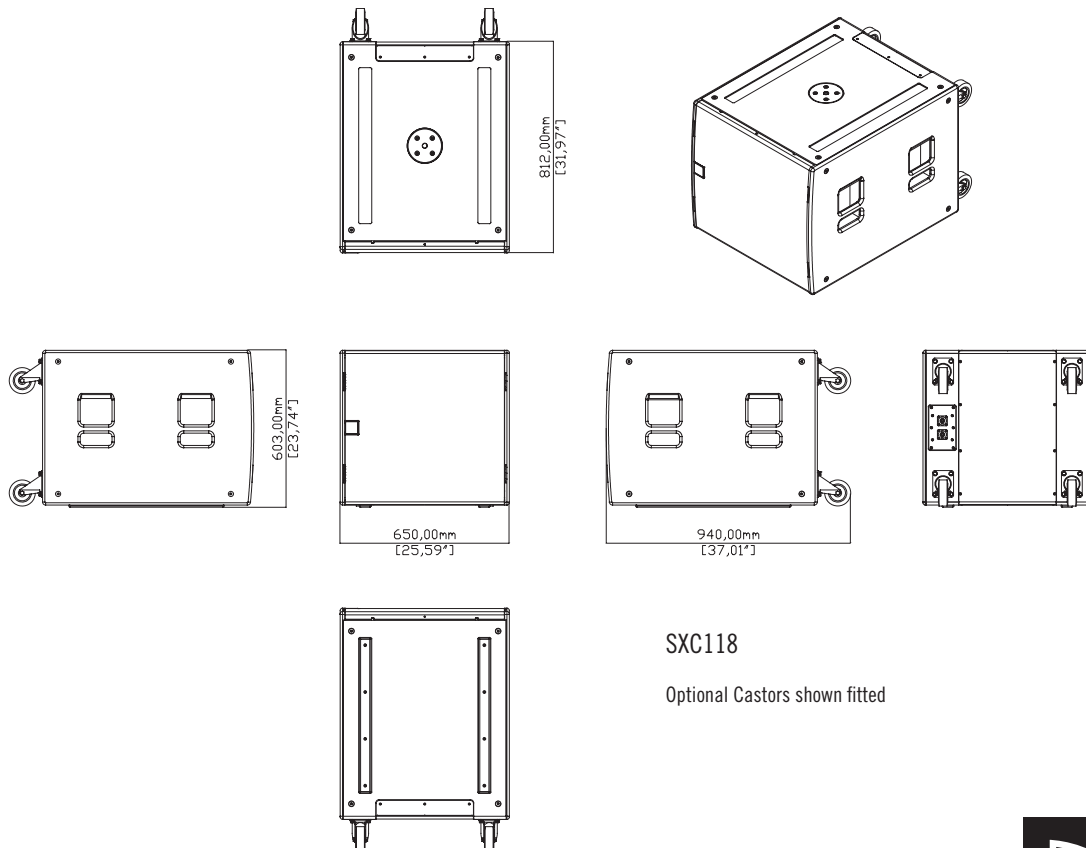
Technical Specifications

TYPE	Compact, cardioid subwoofer
FREQUENCY RESPONSE (1)	43Hz – 150Hz ±3dB, -10dB @ 34Hz
DRIVERS	18" (460mm)/4" (100mm) voice coil, long excursion, ferrite magnet, waterproof cone 14" (356mm)/3.5" (88mm) voice coil, long excursion, neodymium magnet, waterproof cone
RATED POWER (2)	18": 1000W AES, 4000W peak 14": 800W AES, 3200W peak
SYSTEM AMPLIFIER	iKON iK42
SENSITIVITY (10)	104dB
MAXIMUM SPL(9)	140dB peak
NOMINAL IMPEDANCE	18": 8 ohms, 14": 8 ohms
DISPERSION	Cardioid
ENCLOSURE	Multi-laminate birch and poplar ply
FINISH	Textured black paint
PROTECTIVE GRILLE	Black HEX perforated steel
CONNECTOR	2 x NL4
PIN CONNECTIONS (INPUT)	18": +1, -1; 14": +2, -2
PIN CONNECTIONS (LINK)	18": +1, -1; 14": +2, -2
FITTINGS	Two skids on base, with mating channels on top M20 top-mounted thread plate for pole mounting Two bar handles on each side Four fittings for optional transit cover 16 x M10 mounting points 16 x M8 inserts for optional castors
DIMENSIONS (INCL SKIDS)	(W) 650mm x (H) 603mm x (D) 812mm (940mm incl castors) (W) 25.6in x (H) 23.7in x (D) 32in (37in incl castors)
WEIGHT	69kg (152lbs) 73kg (161lbs) incl castors
ACCESSORIES	Transit cover, 16 x M8 inserts for optional castors



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 1watt 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.



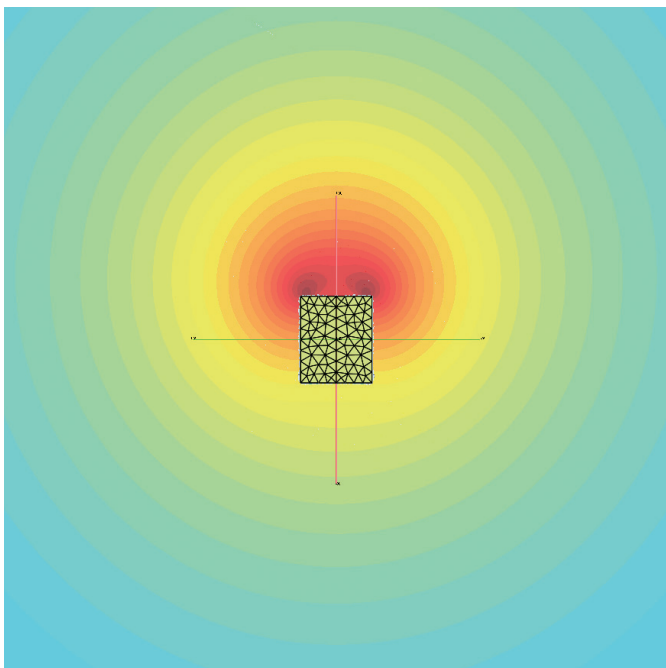
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Optional Castors shown fitted

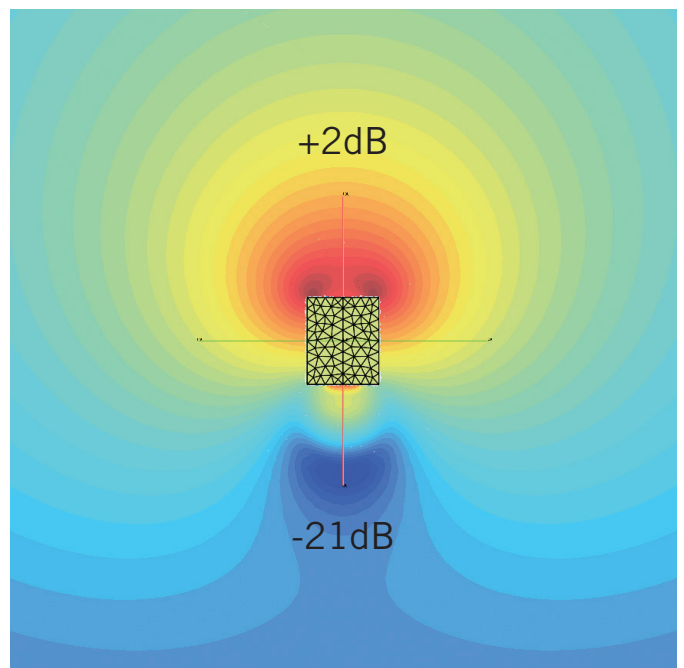
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SXC118 – Dispersion Pattern vs Standard Single 18” Subwoofer



SX118 (Standard single 18”) - Subwoofer Energy Dispersion



SXC118 – Cardioid Subwoofer Energy Dispersion, at 43Hz. Rear rejection is improved by 21dB with an additional 2dB at the front.

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System 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

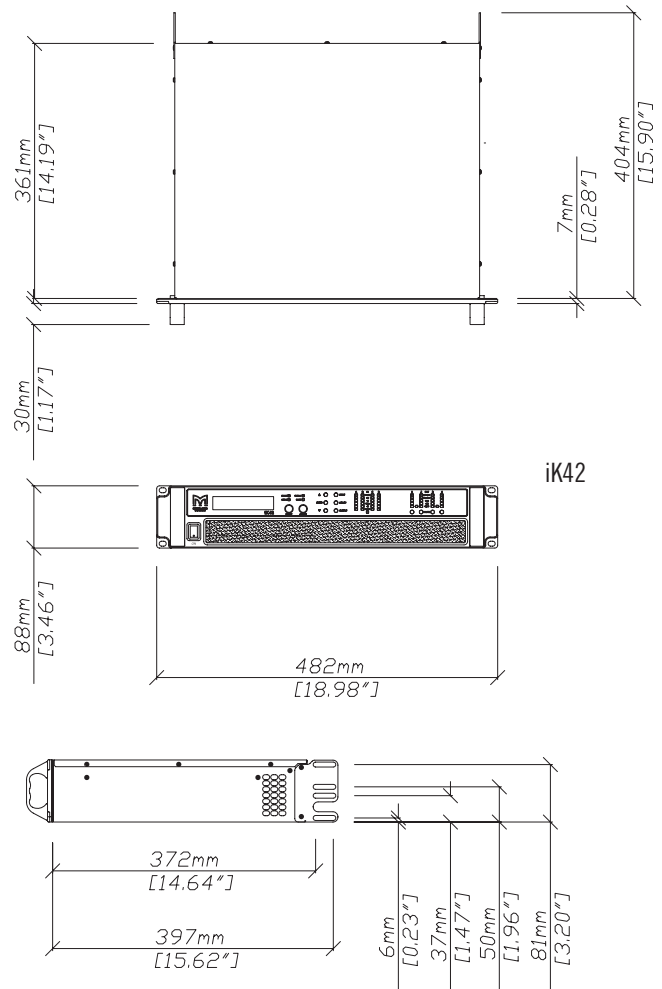
PROTOCOL	Ethernet
CONTROL APPLICATION	Martin Audio VU-NET™

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) 482 x (H) 2U/88mm x (D) 441mm (W) 18.98in x (H) 2U/3.46in x (D) 17.35in incl handles and optional rear support
WEIGHT	12.5kg (27.5lbs)



iK42

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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