

B-218

Architectural and engineering specifications

The loudspeaker unit shall be a subwoofer of the active type with integrated electronics. The enclosure shall be a 'vented bandpass' design with two 18" low frequency transducers in a 'push-pull' configuration.

The complete electronics shall be mounted on a chassis which is placed in a separated part at the backside of the enclosure. Electronics shall consist of active filters to implement the cross-over, a gain switch (+3 / 0 / -3 dB), protection circuitry and two power amplifiers connected to two independent power supplies. The amplifiers shall be constructed according to the 'power supply modulating' topology, having the advantage of a simple (and therefore reliable) configuration and high efficiency. Protection shall consist of a Dynamic Level Control (DLC) circuit that limits the dissipated mean power of the transducers to a safe value, a Vari-Q circuit that controls the maximum cone displacement, DC protection on each of the amplifier outputs, high chassis temperature and high voltage on the mains supply. A LED on the front and rear side shall display the status of all protection circuits.

The balanced signal input connector shall be a 3p female XLR type (p2 = +, p3 = -, p1 = gnd), the full-range signal output link connector shall be a 3p male XLR type (p2 = +, p3 and p1 = gnd). A hard-wired bypass relay guarantees the signal transfer to the link output in any condition. A mains voltage switch (115/230 V) shall be implemented on the outside of the unit and the mains connector shall be a male DO-3 type. All connectors shall be grouped together at the lower side of the chassis.

The enclosure shall be constructed of laminated birch plywood heavily reinforced with bracing. It shall contain eight recessed handles and eight ABS interlocking corners to facilitate stacking. The front of the enclosure shall be covered with open cell foam mounted on a protective perforated steel grill. The enclosure shall be finished with a polyurethane coating.

The complete loudspeaker unit shall meet the following criteria:

Frequency range of 35 - 110 Hz (-6 dB), max. half space SPL at 1m of 129 dB_{SPL} continuous and 132 dB_{SPL} peak. Dimensions are 21.8" (554 mm) H x 57.2" (1454 mm) W x 26.6" (676 mm) D. Weight 238 lbs. (108 kg).

The loudspeaker unit shall be the AXYS model B-218.

Specifications¹

Acoustical²:

Frequency range	:	35 - 110 Hz (-6 dB)
Max SPL (1m) ³	- Continuous	: 129 dB
	- Peak	: 132 dB
Max. acoustical power ⁴	:	50 W (acoustical)

Electrical:

Input	- Sensitivity (120 dB _{SPL} /1m)	: -15 dBu
	- Impedance (balanced)	: 20k Ω
	- Connector (XLR female type)	: p2=+, p3=-, p1=gn
Link	- Impedance	: 300 ###
	- Connector (XLR male type)	: p2=+, p3 and p1=gn
Cross-over	- Type	: 24 dB/Oct
	- Frequency (-6 dB)	: 130 Hz
	- Control switch	: -3 / 0 / +3 dB 'gain'
Power amplifiers ³	:	2 x 320 W _{rms} (8 ###)
Protection	- DLC	: single band
	- Vari-Q	
	- Thermal	: T _{heatsink} > 80° C
	- Mains voltage guard	: over / under voltage
	- DC per amplifier	
	- Hard-wired bypass	: on link output
Mains	- Voltage (+5/-10 %) ⁵	: 115/230 V switchable
	- Connector type	: DO-3 male
	- Fuses (slow type)	: 2 x 6.3 A and 2 x 100 mA
	- Power consumption	: 12 W _{idle} / 600 W _{full load}

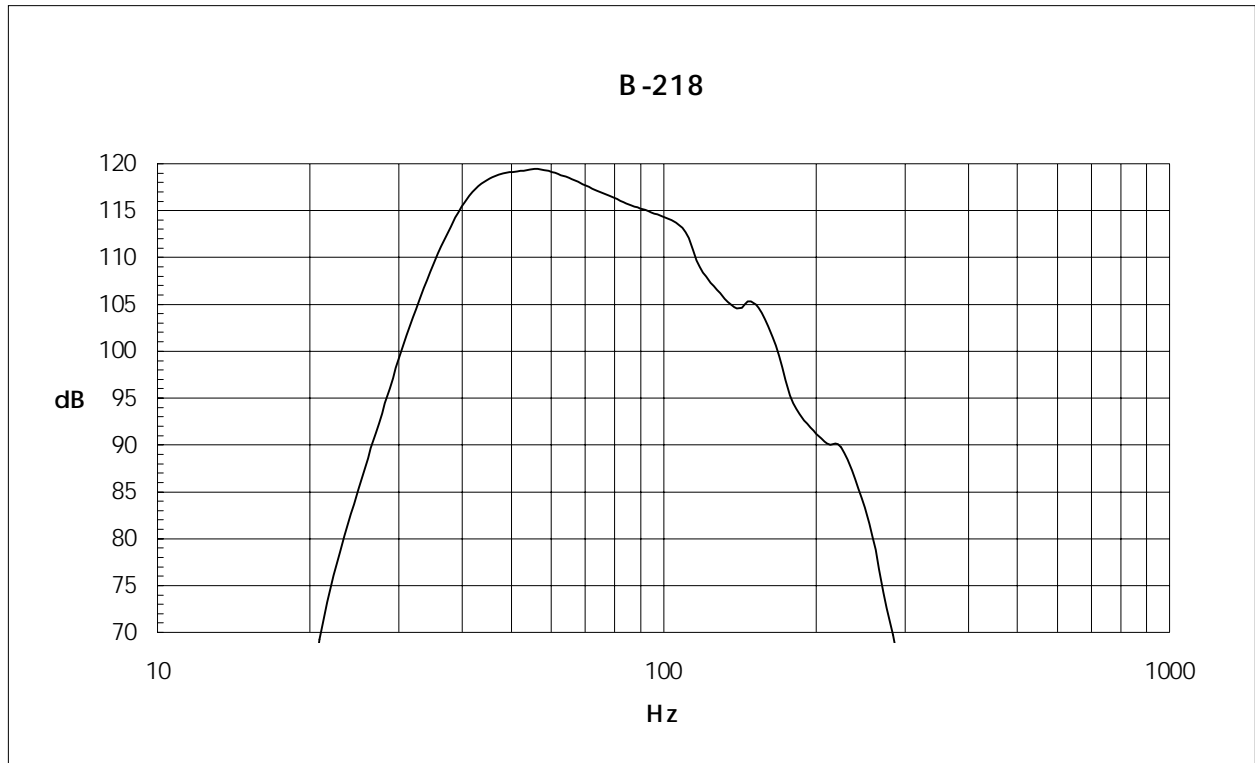
General:

Temperature range (ambient)	:	0 - 40° C
Transducers	:	2 x 18"
Dimensions including corners (H x W x D)	:	554 x 1454 x 676 mm
Weight	:	108 kg

Notes:

- 1 Specifications are valid for 1 unit with 'gain' switch at 0 dB.
- 2 Measured under anechoic 'half-space' conditions unless stated otherwise.
- 3 Measured with gated sine waves.
- 4 Calculated from max continuous SPL in 'half-space'.
- 5 Other voltages available upon request.

SPL response



B-218 Half-space on-axis SPL, 1/3 octave averaged from near-field measurements