

UB-24

Architectural and engineering specifications

The loudspeaker unit shall be a subwoofer of the active type with integrated electronics. The enclosure shall be a 'vented direct radiating' design with one 12" low frequency transducer.

The complete electronics shall be mounted on a chassis which is placed at the backside of the enclosure. Electronics shall consist of active filters to implement the cross-over, a gain control potentiometer, protection circuitry and one power amplifier. Protection shall consist of a Dynamic Level Control (DLC) circuit that limits the dissipated mean power of the transducer to a safe value, high chassis temperature and mains in-rush current limiting. A LED on the rear side shall display the status of the temperature protection circuit.

Two balanced signal inputs (input A and B) shall be implemented, the connector type shall be a 3p female XLR type (p2 = +, p3 = -, p1 = gnd). The unbalanced signal outputs (output A and B) shall be 80 Hz high-pass filtered, the connector type shall be a 3p male XLR type (p2 = +, p3 and p1 = gnd). The mains connector shall be a male DO-3 type. All connectors shall be grouped together at the upper side of the chassis.

The enclosure shall be constructed of laminated birch plywood heavily reinforced with bracing. It shall contain two 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 40 - 150 Hz (- 6 dB), max. half space SPL at 1m of 116 dB_{SPL} continuous and 119 dB_{SPL} peak. Dimensions are 16.3" (414 mm) H x 23.4" (594) mm W x 13.7" (348 mm) D. Weight 66 lbs. (30 kg).

The loudspeaker unit shall be the AXYS model UB-24.

Specifications¹

Acoustical²:

Frequency range		: 40 - 150 Hz (-6 dB)
Max SPL (1m) ³	- Continuous	: 116 dB
	- Peak	: 119 dB
Max. acoustical power ⁴		: 3 W (acoustical)

Electrical:

Input	- Sensitivity (90 dB _{SPL} /1m)	: -10 dBu (1 input connected)
	- Impedance (balanced)	: 10k Ω
	- Connector (XLR female type)	: p2=+, p3=-, p1=gnd
Link	- Filter	: F _{-3 dB} = 80 Hz (12 dB/Oct)
	- Impedance	: 300 ###
	- Connector (XLR male type)	: p2=+, p3 and p1=gnd
Cross-over	- Type	: 24 dB/Oct
	- Frequency (-6 dB)	: 100 Hz
	- Gain control	: -20 / +18 dB
Power amplifier ³		: 300 W _{rms} (8 ###)
Protection	- DLC	: single band
	- Thermal	: T _{heatsink} > 80° C
	- Mains in-rush current limiting	
Mains	- Voltage (+5/-10 %) ⁵	: 230 V
	- Connector type	: DO-3 male
	- Fuses (slow type)	: 1 x 3.15 A
	- Power consumption	: 23 W _{idle} / 300 W _{full load}

General:

Temperature range (ambient)		: 0 - 40° C
Transducer		: 1 x 12"
Dimensions including corners (H x W x D)		: 414 x 594 x 348 mm
Weight		: 30 kg

Notes:

1 Specifications are valid for 1 unit with 'gain' control at 0 dB position (12 'o clock) unless stated otherwise.

2 Valid for 'half-space' conditions.

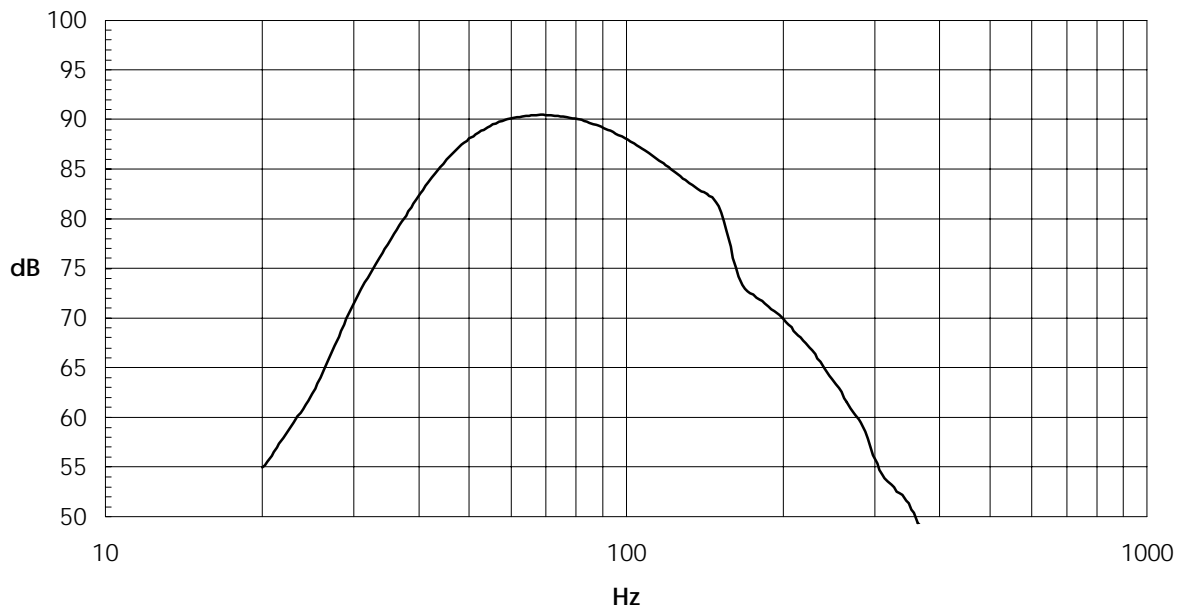
3 Measured with gated sine waves.

4 Calculated from max continuous SPL in 'half-space'.

5 Other voltages available upon request.

SPL response

UB-24



UB-24 **Half-space on-axis SPL, 1/3 octave averaged**
 Distance scaled to 6.5 m, input level 0.2 Vrms, 'gain' control max clockwise
 From near field measurements