

UB-25

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 15" 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 switch (-9 / 0 dB), 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 100 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 38 - 170 Hz (- 6 dB), max. half space SPL at 1m of 118 dB_{SPL} continuous and 121 dB_{SPL} peak. Dimensions are 24.7" (627 mm) H x 17.6" (446) mm W x 22.3" (566 mm) D. Weight 82 lbs. (37 kg).

The loudspeaker unit shall be the AXYS model UB-25.

Specifications¹

Acoustical²:

Frequency range		: 38 - 170 Hz (-6 dB)
Max SPL (1m) ³	- Continuous	: 118 dB
	- Peak	: 121 dB
Max. acoustical power ⁴		: 4 W (acoustical)

Electrical:

Input	- Sensitivity (100 dB _{SPL} /1m)	: -28 dBu (1 input connected)
	- Impedance (balanced)	: 10k Ω
	- Connector (XLR female type)	: p2=+, p3=-, p1=gnd
Link	- Filter	: F _{-3 dB} = 100 Hz (12 dB/Oct)
	- Impedance	: 300 ###
	- Connector (XLR male type)	: p2=+, p3 and p1=gnd
Cross-over	- Type	: 24 dB/Oct
	- Frequency (-6 dB)	: 130 Hz
	- Control switch	: -9 / 0 dB 'gain'
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 15"
Dimensions including corners (H x W x D)	: 627 x 446 x 566 mm
Weight	: 37 kg

Notes:

1 Specifications are valid for 1 unit with 'gain' switch at 0 dB position unless stated otherwise.

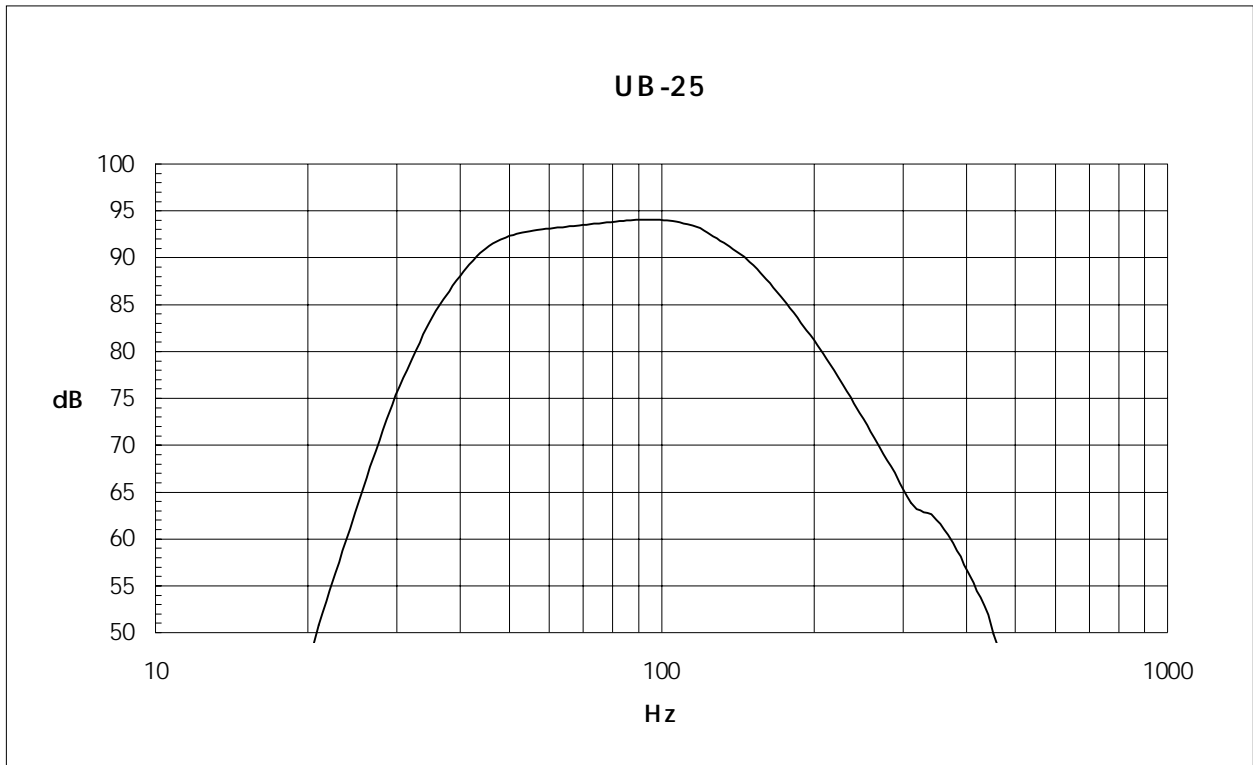
2 Valid for 'half-space' conditions.

3 Measured with gated sine waves.

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

5 Other voltages available upon request.

SPL response



UB-25 Half-space on-axis SPL, 1/3 octave averaged
 Distance scaled to 6.5 m, input level 0.1 Vrms, 'gain' at 0 dB
 From near field measurements