

8.0" Extended Woofer

**PURE
SOUND**

Long Stroke driver with
Ultra Low Distortion



PTT8.0X04-NAB-02 DATA SHEET

KEY SPECIFICATIONS

- ⊙ Negligible Force Factor Modulation and Surround Radiation Distortion
- ⊙ Low Magnetic Hysteresis Distortion
- ⊙ "Real" long-stroke Performance: Distortion remains low over full Excursion
- ⊙ Uncompromised Midrange Performance
- ⊙ Designed and Manufactured in Denmark

Driver size	8"
DC resistance, R_{DC}	3.5 Ω
Resonance freq., f_s	26 Hz
Total Q factor, Q_{ts}	0.36
Effective piston area	235 cm ²
Equivalent volume, V_{as}	70 L
SPL@2.83V _{rms} /1m	89.3 dB
Linear X_{max}	+/- 9.3 mm
Mechanical X_{max}	+/- 15.0 mm
IEC Power handling	350 W
Cone material	Black Anodized Aluminum

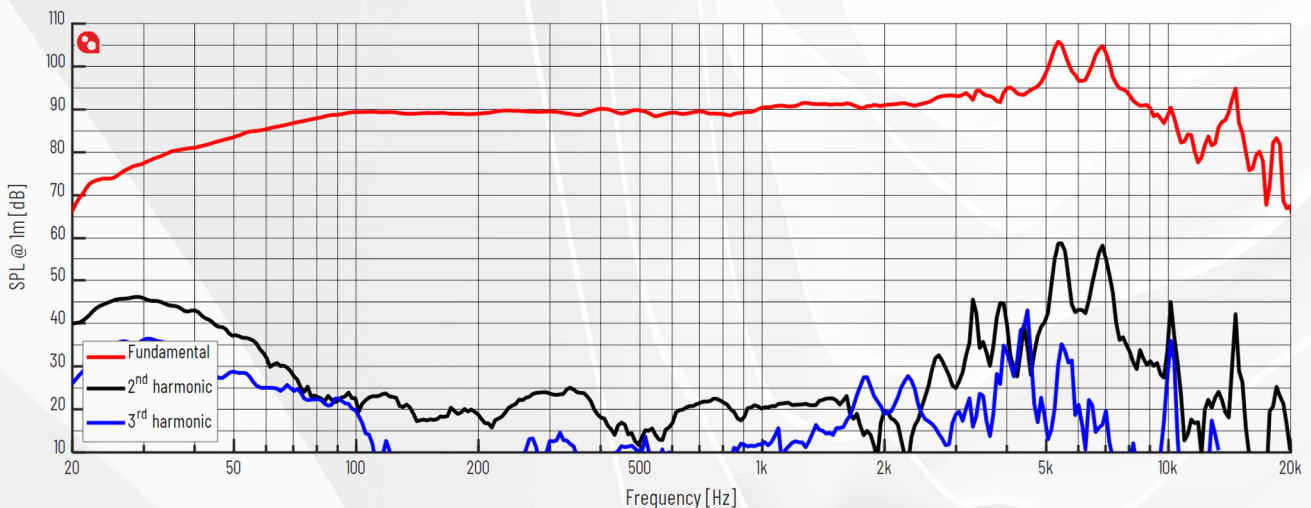


Figure 1 Frequency Response 2.83V_{rms} @1m

1 Specifications

1.1 Electrical & Acoustical Parameter

Parameter		Typ	Unit
Z_n	Nominal impedance	4	Ω
Z_{min}	Minimum impedance above resonance	3.8	Ω
f_{min}	Frequency for minimum impedance	241	Hz
Z_o	Maximum impedance	52	Ω
R_{DC}	DC resistance	3.5	Ω
L_e	Voice Coil inductance @ 1kHz 0mm	0.18	mH
SPL	SPL@2.83V _{rms} /1m, 300Hz-800Hz, ref. 20 μ Pa (infinite baffle / 2pi)	89.3	dB
	SPL@1W(Z_{min})/1m, 300Hz-800Hz, ref. 20 μ Pa (infinite baffle / 2pi)	86.1	dB

Table 1 Electrical & Acoustical Parameters

1.2 T/S & Lumped Parameters

Parameter		Typ	Unit
f_s	Resonance frequency	26	Hz
Q_{ms}	Mechanical Q factor	5.3	-
Q_{es}	Electrical Q factor	0.38	-
Q_{ts}	Total Q factor	0.36	-
V_{as}	Equivalent volume	70.4	L
S_d	Effective piston area	235.1	cm ²
D	Effective piston diameter	17.3	cm
Bl	Force factor	8.0	N/A
R_{ms}	Mechanical resistance	1.32	kg/s
M_{ms}	Moving mass	43.2	g
C_{ms}	Suspension compliance	0.90	mm/N

Table 2 T/S & Lumped Parameters

1.3 Mechanical Properties

Parameter		Typ	Unit
Excursion Properties			
X_{max}	Linear excursion = (Voice Coil length - Airgap height) / 2	+/-9.3	mm
	Mechanical excursion	+/-15.0	mm
Physical Dimensions			
	Basket diameter	221	mm
	Cutout diameter	193	mm
	Mounting hole pattern diameter	210	mm
	Mounting hole diameter	5.2	mm
	Magnet diameter	140	mm
	Outer flange height	5	mm
	Build-in depth	102	mm
	Weight	3.5	kg
Voice Coil Properties			
	Voice Coil diameter	52	mm
	Voice Coil length	23.6	mm
	Voice Coil layers	2	-
	Airgap height	5	mm
	Winding material	CCAW	-

Table 3 Mechanical Properties

1.4 Power Handling

Parameter		Typ	Unit
	Long term maximum power (IEC268-5 18.2)	350	W
	Rated noise power, 100h (IEC268-5 18.4)	90W	W

Table 4 Power Handling

1.5 Typical Performance, Graphs

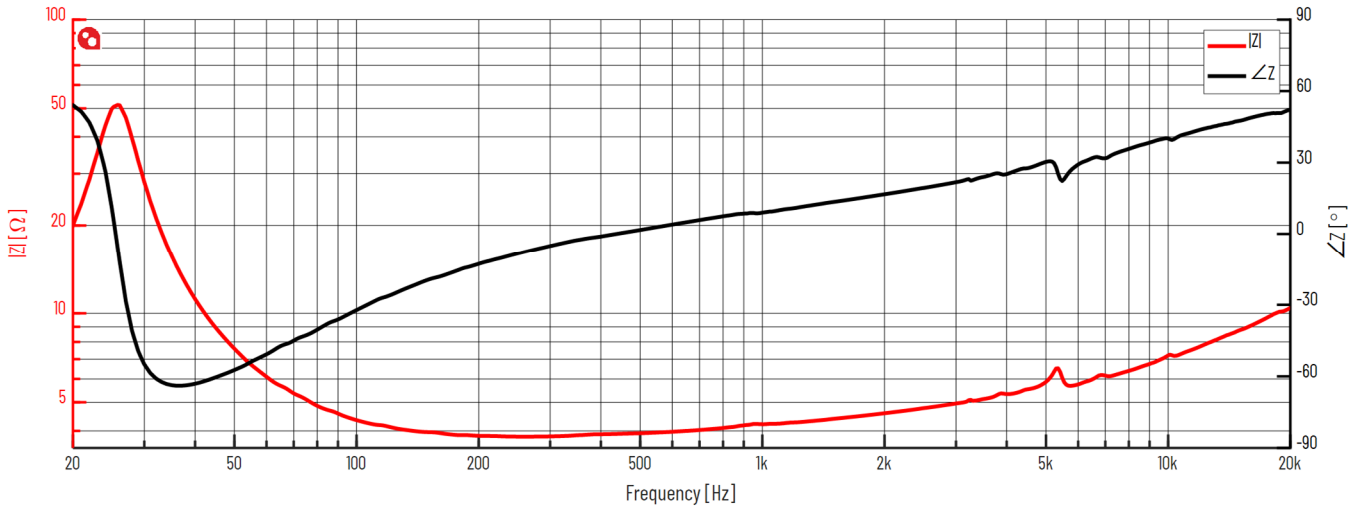


Figure 2 Impedance Response @ 2.83V

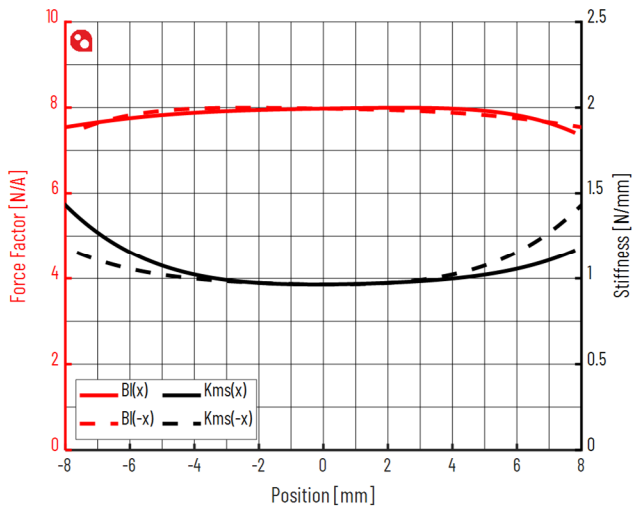


Figure 3 Force Factor and Stiffness vs Voice Coil Position

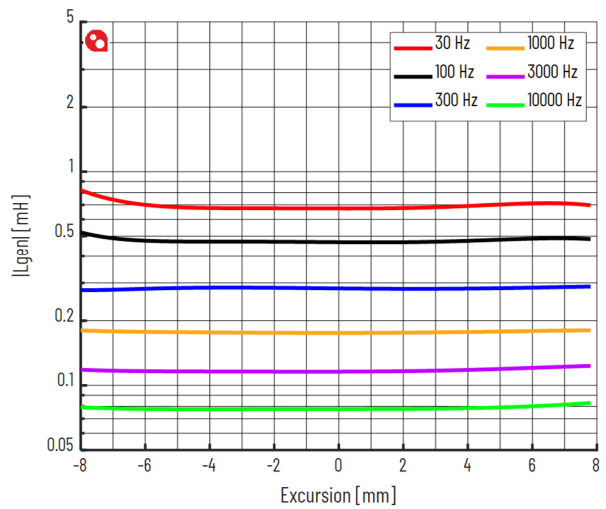


Figure 4 Inductance vs Voice Coil Position

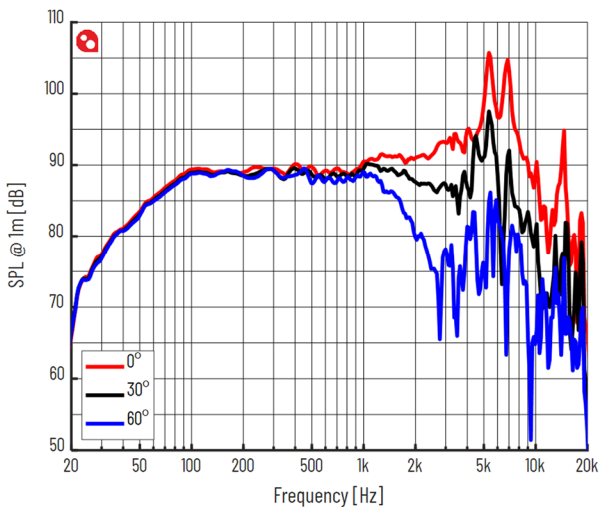


Figure 5 Axial Frequency Response @ 1m, 2.83Vrms

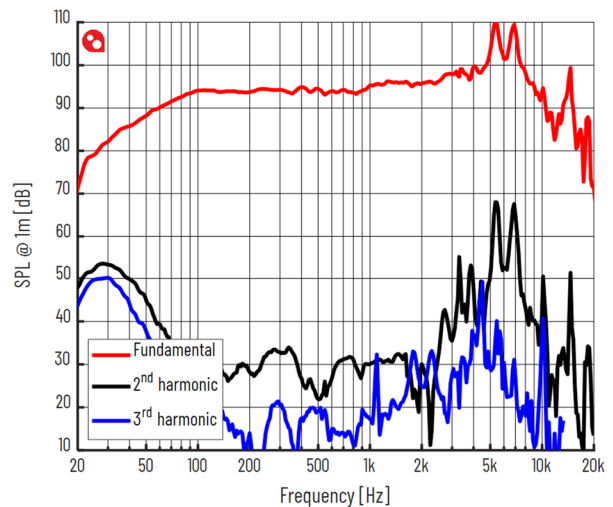


Figure 6 Frequency Response @ 1m, 94dB

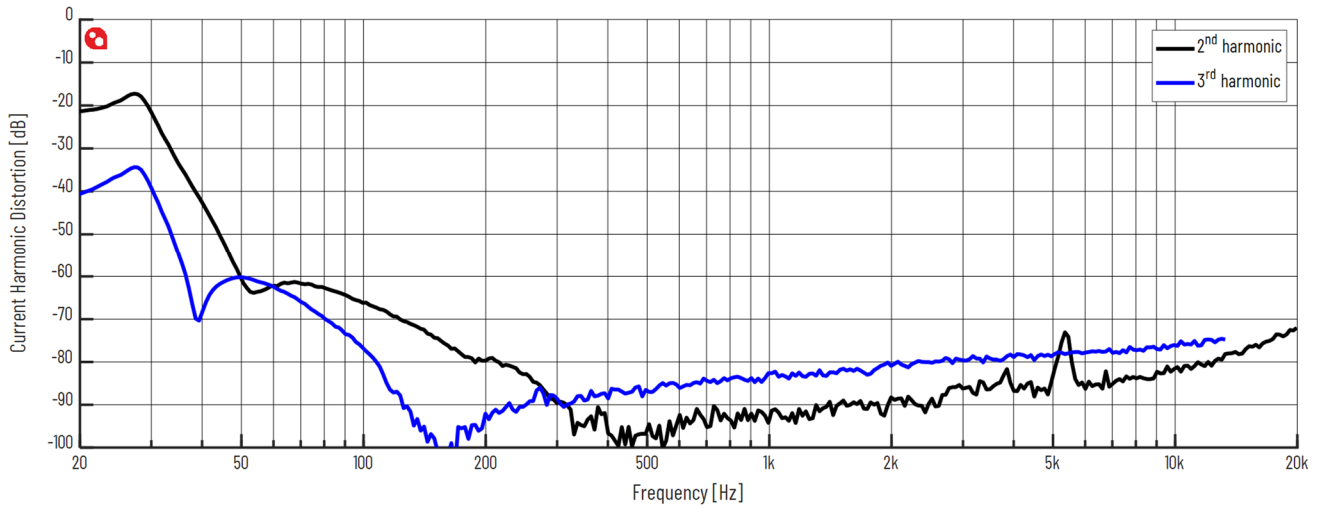


Figure 7 Current Harmonic Distortion @ 2.83Vrms

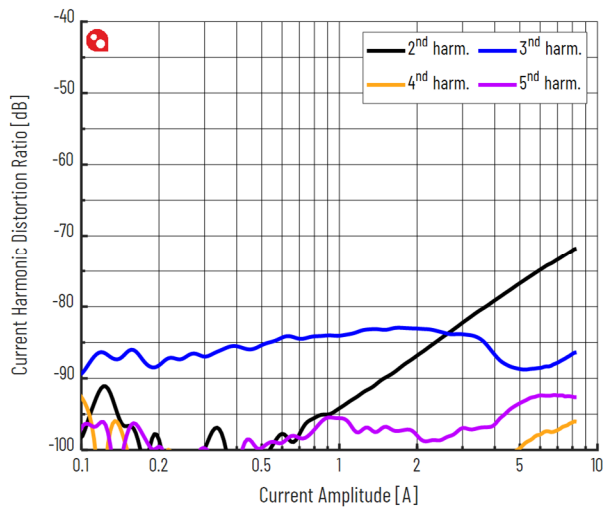


Figure 8 Current Harmonic Distortion @ 1kHz, 0-28.3Vrms

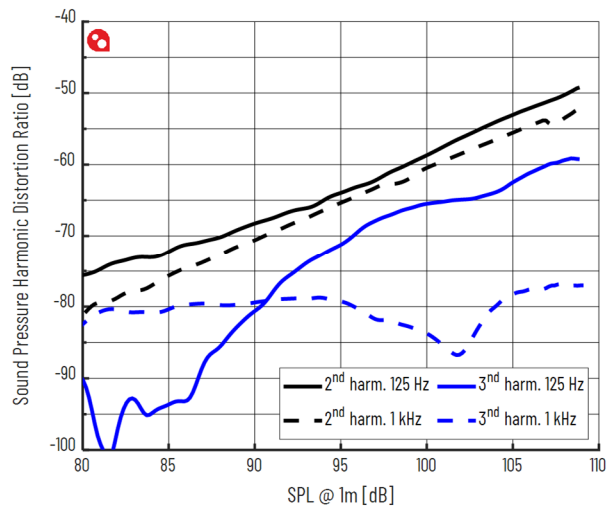


Figure 9 Sound Pressure Harmonic Distortion @ 1m, 0-28.3Vrms

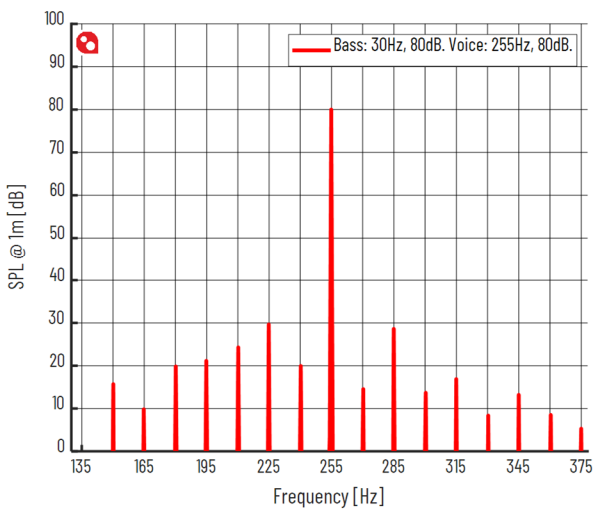


Figure 10 Intermodulation Distortion @ 30Hz 80dB, 255Hz 80dB

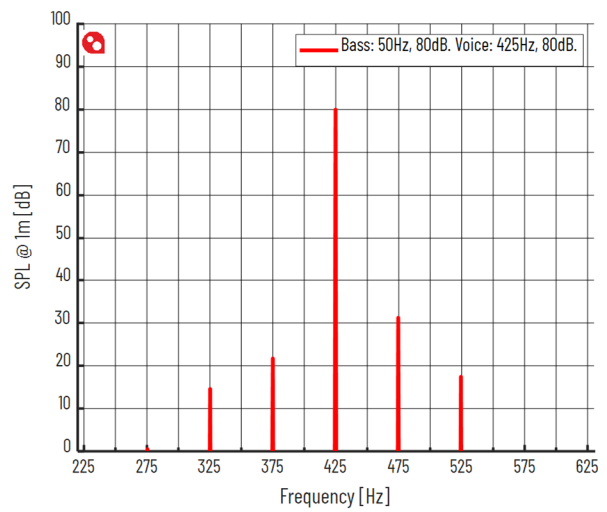
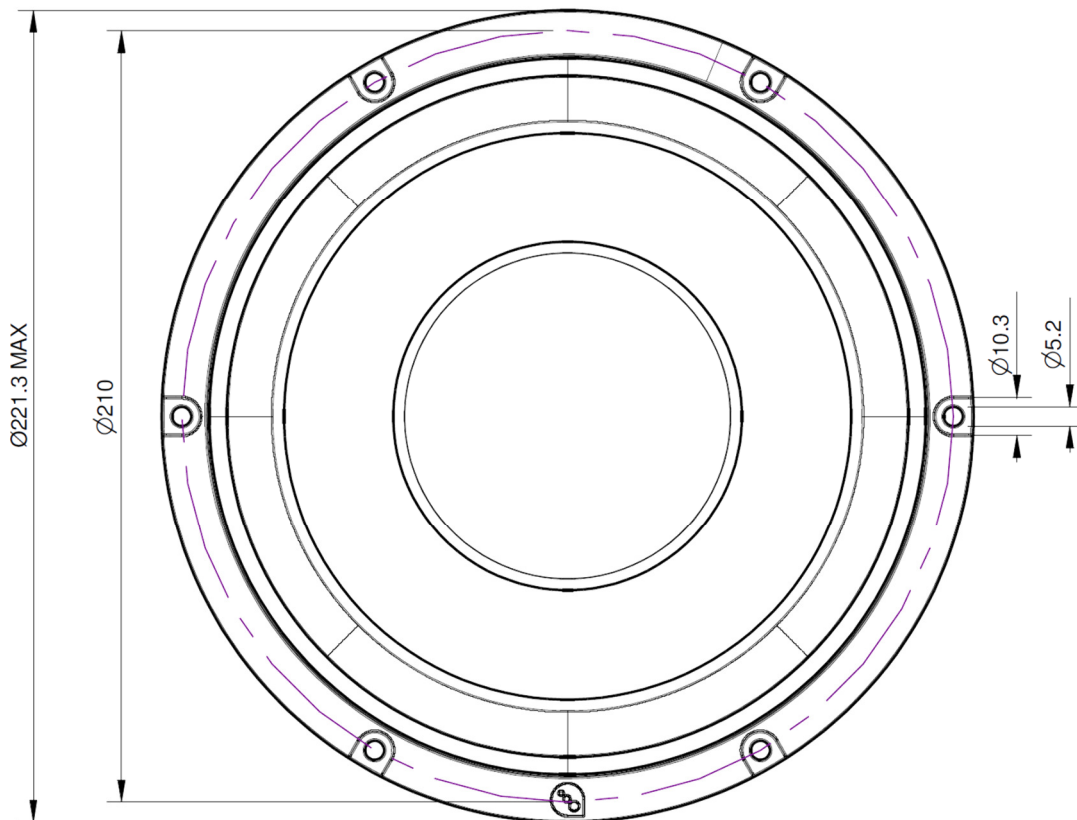
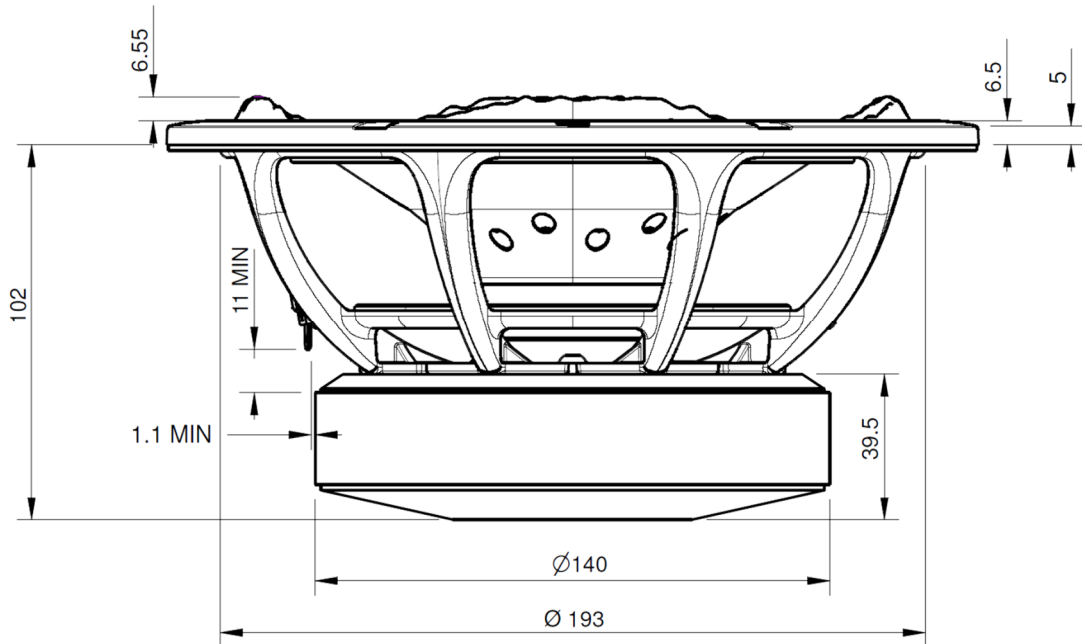


Figure 11 Intermodulation Distortion @ 50Hz 80dB, 425Hz 80dB

2 Drawings



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