



PHL Audio HP7221Nd

18 inches bass driver

Nominal Diameter	46 cm / 18 "
Rated Impedance	8 Ω
Reference efficiency (1W @ 1m)	96.5 dB SPL
Power Handling Capacity	1000 W AES
SPL max (continuous)	124 dB SPL
Usable frequency range	25 - 800 Hz
Speaker net mass	7.4 kg

Architecture highlights :

- Natural convection Intercooling system for noiseless sound reproduction
- Neodymium magnet system with symmetric BL(x) and Le(x) characteristics
- Both sides coated curvilinear cone (Tropical withstanding)
- Heavy duty long excursion suspension with linear behavior for large signal



Motor architecture

Voice coil diameter	mm	101
Voice coil length	mm	25
Air gap height	mm	10

Typical characteristics

Rated impedance	Z	Ω	8
Half space sensitivity (1W@1m)	-	dB SPL	96.5
Usable freq. range	-	Hz	25 - 800
Power handling capacity (AES)	-	W	1000
Max Sound Pressure Level	SPL _{max}	dB SPL	124
Min. impedance modulus	Z _{min}	Ω @Hz	6.6@190
Voice-coil inductance @ 1kHz	Le _{1k}	mH	1.686
Voice-coil inductance @ 10kHz	Le _{10k}	mH	0.729
BL product	BL	N/A	28.0
Moving mass	Mms	kg	0.217

Thiele-Small parameters

Resonance frequency	Fs	Hz	34 (± 5)
DC Resistance	Re	Ω	5.2 (± 0.5)
Mechanical quality factor	Qms	1	5.79
Electrical quality factor	Qes	1	0.31
Total quality factor	Qts	1	0.29
Suspension compliance	Cms	10 ⁻⁶ .m/N	100
Effective piston area	Sd	m ²	0.1250
Equivalent Cas air load	Vas	m ³	0.2210
Max linear excursion	Xmax	mm	± 10.0
Linear displacement volume	Vd	10 ⁻³ .m ³	1.2504
Reference efficiency	η_0	%	2.7
Unity load volume	Vas.Qts ²	10 ⁻³ .m ³	18.8

Absolute maximum ratings

Short term max. input voltage	Vmax	V	180
Max.excursion before damage	Xdam	mm	21.0
Ambient operating temperature	Ta	°C	-10 to +50
Storage temperature		°C	-20 to +70
Environmental withstanding			Tropical

Mounting information

Air volume occupied by the driver	10 ⁻³ .m ³	6.2
Speaker net mass	kg	7.4
Baffle cut-out diameter (front mounting)	mm	422.0
Bolt number & Metric diameter	-	8x M6
Bolt circle diameter	mm	454.0
Max overall dimension (on ears)	mm	476.0
Max overall dimension (out of ears)	mm	457.0
Flange height	mm	15.0
Max magnet diameter	mm	140.0
Max depth (front mounting)	mm	185.0
Recommended reflex box	Lts / Hz	200L / 33Hz
Electrical connection		Ø4 mm Push buttons

