



PHL Audio HP2451

8 inches bass - mid driver

Nominal Diameter	20 cm / 8 "
Rated Impedance	12 Ω
Reference efficiency (1W @ 1m)	94 dB SPL
Power Handling Capacity	250 W AES
SPL max (continuous)	114 dB SPL
Usable frequency range	80 - 4000 Hz
Speaker net mass	4.48 kg

Architecture highlights :

- Double side Coated diaphragm (Tropical withstanding)
- Natural convection Intercooler System
- High compliance double half-roll Fabric Surround
- Ultra light CCAR voice coil

Motor architecture

Voice coil diameter	mm	51
Voice coil length	mm	15
Air gap height	mm	8

Typical characteristics

Rated impedance	Z	Ω	12
Half space sensitivity (1W@1m)	-	dB SPL	94
Usable freq. range	-	Hz	80 - 4000
Power handling capacity (AES)	-	W	250
Max Sound Pressure Level	SPL _{max}	dB SPL	114
Min. impedance modulus	Z _{min}	Ω @Hz	11.0@400
Voice-coil inductance @ 1kHz	Le _{1k}	mH	1.658
Voice-coil inductance @ 10kHz	Le _{10k}	mH	0.679
BL product	BL	N/A	17.0
Moving mass	Mms	kg	0.023

Thiele-Small parameters

Resonance frequency	Fs	Hz	85 (± 12)
DC Resistance	Re	Ω	9.5 (± 1)
Mechanical quality factor	Qms	1	2.73
Electrical quality factor	Qes	1	0.40
Total quality factor	Qts	1	0.35
Suspension compliance	Cms	10 ⁻⁶ .m/N	150
Effective piston area	Sd	m ²	0.0219
Equivalent Cas air load	Vas	m ³	0.0102
Max linear excursion	Xmax	mm	± 4.5
Linear displacement volume	Vd	10 ⁻³ .m ³	0.0986
Reference efficiency	η_0	%	1.5
Unity load volume	Vas.Qts ²	10 ⁻³ .m ³	1.3

Absolute maximum ratings

Short term max. input voltage	Vmax	V	110
Max.excursion before damage	Xdam	mm	10.0
Ambient operating temperature	Ta	°C	-10 to +50
Storage temperature		°C	-20 to +70
Environemental withstanding			Tropical



Mounting information

Air volume occupied by the driver	10 ⁻³ .m ³	1.00
Speaker net mass	kg	4.48
Baffle cut-out diameter (front mounting)	mm	185.0
Bolt number & Metric diameter	-	4x M5
Bolt circle diameter	mm	217.0
Max overall dimension (on ears)	mm	234.0
Max overall dimension (out of ears)	mm	205.0
Flange height	mm	9.5
Max magnet diameter	mm	158.0
Max depth (front mounting)	mm	90.0
Recommended reflex box	Lts / Hz	10L / 80Hz
Electrical connection		Ø4 mm Push buttons

