



PHL Audio HP5091M

15 inches bass driver

Nominal Diameter	38 cm / 15 "
Rated Impedance	8 Ω
Reference efficiency (1W @ 1m)	98.5 dB SPL
Power Handling Capacity	500 W AES
SPL max (continuous)	121 dB SPL
Usable frequency range	40 - 1500 Hz
Speaker net mass	7.7 kg

Architecture highlights :

- Natural convection Intercooling System
- No cone body treatment leading to a very high sensitivity
- High compliance double half-roll fabric surround
- Ultra light injection molded basket

Motor architecture

Voice coil diameter	mm	77
Voice coil length	mm	20
Air gap height	mm	10

Typical characteristics

Rated impedance	Z	Ω	8
Half space sensitivity (1W@1m)	-	dB SPL	98.5
Usable freq. range	-	Hz	40 - 1500
Power handling capacity (AES)	-	W	500
Max Sound Pressure Level	SPL _{max}	dB SPL	121
Min. impedance modulus	Z _{min}	Ω @Hz	6.8@200
Voice-coil inductance @ 1kHz	Le _{1k}	mH	1.920
Voice-coil inductance @ 10kHz	Le _{10k}	mH	0.916
BL product	BL	N/A	23.7
Moving mass	Mms	kg	0.101

Thiele-Small parameters

Resonance frequency	Fs	Hz	47 (± 6)
DC Resistance	Re	Ω	5.6 (± 0.6)
Mechanical quality factor	Qms	1	4.97
Electrical quality factor	Qes	1	0.30
Total quality factor	Qts	1	0.28
Suspension compliance	Cms	10 ⁻⁶ .m/N	110
Effective piston area	Sd	m ²	0.0892
Equivalent Cas air load	Vas	m ³	0.1265
Max linear excursion	Xmax	mm	± 7.5
Linear displacement volume	Vd	10 ⁻³ .m ³	0.6690
Reference efficiency	η_0	%	4.3
Unity load volume	Vas.Qts ²	10 ⁻³ .m ³	10.0

Absolute maximum ratings

Short term max. input voltage	Vmax	V	125
Max.excursion before damage	Xdam	mm	14.0
Ambient operating temperature	Ta	°C	-10 to +50
Storage temperature		°C	-20 to +70
Environmental withstanding			indoor



Mounting information

Air volume occupied by the driver	10 ⁻³ .m ³	4.4
Speaker net mass	kg	7.7
Baffle cut-out diameter (front mounting)	mm	356.0
Bolt number & Metric diameter	-	8x M6
Bolt circle diameter	mm	370 & 388
Max overall dimension (on ears)	mm	406.5
Max overall dimension (out of ears)	mm	380.5
Flange height	mm	13.0
Max magnet diameter	mm	204.0
Max depth (front mounting)	mm	155.5
Recommended reflex box	Lts / Hz	65L/55Hz
Electrical connection		$\varnothing 4$ mm Push buttons

