



X17 + HF UNIT *

COAXIAL+HIGH FREQ. UNIT • 17cm / 6.5"

Speaker type	E171-8 + HF UNIT	B171-8 + HF UNIT	B171-8 + HF UNIT	B171-8 + HF UNIT	B171-16 + HF UNIT	B171-8 + HF UNIT
Reference	1430	1440	1240TWX	1460TWX	1190TWX	1220TWX

TYPICAL CHARACTERISTICS

Rated impedance	Z	Ω	8	6	8	6	16	6	8	6	16	6	8	6
Half space sensitivity (1W@1m)	-	dB SPL	97	95 ⁽¹⁾	94	95 ⁽¹⁾	93	95	93	95	94	95	93	95
Usable freq. range	-	Hz	200-7000	3000-20000	50-4000	3000-20000	50-4000	3k - 20k	40-4000	3k - 20k	50-4000	3k - 20k	50-4000	3k - 20k
Coverage angle	α	°	-	#100	-	#100	-	#100	-	#100	-	#100	-	#100
Power handling capacity (AES)	-	W	100	60 ⁽²⁾	100	60 ⁽²⁾	100	60 ⁽²⁾	100	60 ⁽²⁾	100	60 ⁽²⁾	100	60 ⁽²⁾
Max Sound Pressure Level	SPLmax	dB SPL	113	111	110	111	109	109	109	109	110	109	109	109
Min. impedance modulus	Zmin	Ω@Hz	6.7@600	4.3@4500	6.6@370	4.3@4500	13.5@360	4.3@4500	6.6 @ 360	4.3@4500	13.6@370	4.3@4500	6.0@360	4.3@4500
Voice-coil inductance @ 1kHz	Le _{1k}	mH	0,69	-	0,61	-	1,33	-	0,64	-	1,27	-	0,64	-
Voice-coil inductance @ 10kHz	Le _{10k}	mH	0,30	0,10	0,23	0,10	0,46	0,10	0,23	0,10	0,45	0,10	0,23	0,10
BL product	BL	N/A	10,50	-	8,80	-	11,9	-	8,8	-	11,9	-	8,8	-
Moving mass	Mms	kg	0,0088	-	0,011	-	0,011	-	0,011	-	0,01	-	0,011	-

(1) Measured on axis when fitted in a 6.5" loudspeaker (2) Ferrofluid cooled HF UNIT . Stated with a 2nd order passive high-pass filter set @ 3 kHz

THIELE-SMALL PARAMETERS: TYPICAL (QC LIMITS)

Resonance frequency	Fs	Hz	120(±25)	1650(±250)	55(±7)	1650(±250)	42(±6)	1650(±250)	44(±7)	1650(±250)	57(±8)	1650(±250)	47(±7)	1650(±250)
DC Resistance	Re	Ω	6.1(±0.6)	3.9(±0.5)	6.1(±0.6)	3.9(±0.5)	12.1(±1.2)	3.9(±0.5)	6.1(±0.6)	3.9(±0.5)	12.1(±1.2)	3.9(±0.5)	6.0(±0.6)	3.9(±0.5)
Mechanical quality factor	Qms	1	6,3	-	3,5	-	2,6	-	3,2	-	3,3	-	3	-
Electrical quality factor	Qes	1	0,37	-	0,30	-	0,25	-	0,24	-	0,31	-	0,24	-
Total quality factor	Qts	1	0,35	-	0,28	-	0,23	-	0,22	-	0,28	-	0,23	-
Mechanical suspension compliance	Cms	10 ⁻⁶ .m/N	200	-	750	-	1300	-	1200	-	750	-	1000	-
Effective piston area	Sd	m ²	0,0150	-	0,0143	-	0,0133	-	0,0133	-	0,0133	-	0,0133	-
Equivalent Cas air load	Vas	m ³	0,0063	-	0,022	-	0,032	-	0,029	-	0,019	-	0,026	-
Max linear excursion	Xmax	±mm	2,5	0,2	3,5	0,2	3,5	0,2	3,5	0,2	3,5	0,2	3,5	0,2
Linear displacement volume	Vd	10 ⁻³ .m ³	0,038	-	0,050	-	0,047	-	0,047	-	0,047	-	0,047	-
Reference efficiency	η ₀	%	2,8	-	1,2	-	0,9	-	1	-	1,1	-	1,1	-
Unity load volume	Vas.Qts ²	10 ⁻³ .m ³	0,8	-	1,7	-	1,7	-	1,5	-	1,5	-	1,5	-

ABSOLUTE MAXIMUM RATINGS

Short term max. input voltage	Vmax	V	60	40	60	40	85	40	60	40	85	40	60	40
Max.excursion before damage	Xdam	±mm	4	-	8	-	8	n.a.	8	n.a.	8	n.a.	8	n.a.
Lowest recommended X-over frequency	-	Hz	-	3000	-	3000	-	3000	-	3000	-	3000	-	3000
Ambient operating temperature	Ta	°C	-20 to +50	-	-10 to +50	-	-10 to +50	-10 to +50	-10 to +50	-10 to +50	-10 to +50	-10 to +50	-10 to +50	-10 to +50
Storage temperature	-	°C	-20 to +70	-	-20 to +70	-	-20 to +70	-20 to +70	-20 to +70	-20 to +70	-20 to +70	-20 to +70	-20 to +70	-20 to +70
Environmental withstanding **	-	-	Outdoor + Outdoor	-	Outdoor + Outdoor	-	Outdoor + Outdoor	Outdoor + Outdoor	Outdoor + Outdoor	Outdoor + Outdoor	Outdoor + Outdoor	Outdoor + Outdoor	Outdoor + Outdoor	Outdoor + Outdoor

APPLICATION INFORMATION

Air volume occupied by the driver	-	10 ⁻³ .m ³	0,46	-	0,5	-	0,5	-	0,5	-	0,5	-	0,5	-
Speaker net mass	-	kg	2,15	53.10 ⁻³	2,15	53.10 ⁻³	2,15	0,053	2,15	0,053	2,15	0,053	2,15	0,053
Recommended 2nd order passive X-over	C/L	μF/mH	-	4.7 / 0.33	-	4.7 / 0.33	-	4.7 / 0.33	-	4.7 / 0.33	-	4.7 / 0.33	-	4.7 / 0.33
Recommended reflex box	Vb/Fb	Lts/Hz	3 L sealed	-	12L / 70Hz	-	12 L / 55Hz	n.a.	15 L / 45Hz	n.a.	12L/70Hz	n.a.	12L/55Hz	n.a.

* This HF UNIT is built according to PHL AUDIO's specifications and is mounted coaxially in 1.5" or 2" voice coil.
This HF UNIT has a 1" critically damped mid-soft diaphragm, a high energy double Neodymium magnets, an ultra-light aluminium voice-coil and is ferrofluid cooled.

** Our products are classified in three categories : **Indoor**, **Outdoor**, and **Outdoor +** for permanent outdoor use or severe conditions.

These specifications are representative of current production after packaging. Because of our continuous research they are subject to change without notice.

upgrade : 23/06/2003