SPECIFICATIONS

FEATURES

- Balanced Drive motor structure for optimal drive force symmetry resulting in largely reduced even order harmonic distortion
- Copper cap on center pole to reduce voice coil inductance and to minimize variations in voice coil inductance as a function of voice coil position
- Black coated semi-air-dried paper cone
- Rigid die cast alu chassis with extensive venting for lower air flow speed reducing audible distortion
- Large motor for better control and power handling
- Vented voice coil former for reduced distortion and compression
- Heavy-duty black fiber glass voice coil former to reduce mechanical losses resulting in better dynamic performance and low-level details
- Built-in alu field-stabilizing ring for reduced distortion at high levels
- Low-loss suspension (high Qm) for better reproduction of details and dynamics
- Black motor parts for better heat transfer to the surrounding air
- Conex spider for better durability under extreme conditions
- Gold plated terminals to ensure long-term trouble free connection

NOMINAL SPECIFICATIONS

Notes	Parameter	WF120CU02-01		WF120CU03-01		Unit
		Before burn-in	After burn-in	Before burn-in	After burn-in	
	Nominal size	4¾		4¾		[inch.]
	Nominal impedance	4		8		[ohm]
	Recommended max. upper frequency limit	4		4		[kHz]
1	Sensitivity, 2.83V/1m (average SPL in range 300 - 1,000 Hz)	88.5		86		[dB]
2	Power handling, short term, IEC 268-5, no additional filtering					[W]
2	Power handling, long term, IEC 268-5, no additional filtering					[W]
2	Power handling, continuous, IEC 268-5, no additional filtering	50		50		[W]
	Effective radiating area, S_d	54		54		[cm^2]
3, 6	Resonance frequency (free air, no baffle), F_S	70		71.5		[Hz]
	Moving mass, incl. air (free air, no baffle), M_{ms}	6.55		6.25		[g]
3	Force factor, Bxl	4.5		5.5		[N/A]
3, 6	Suspension compliance, C_{ms}	0.79	1.03	0.79	1.03	[mm/N]
3, 6	Equivalent air volume, V_{as}	3.25	4.25	3.25	4.25	[lit.]
3, 6	Mechanical resistance, R_{ms}	0.49	0.42	0.49	0.42	[Ns/m]
3, 6	Mechanical Q, Q_{ms}	5.9	6.0	5.7	5.9	[-]
3, 6	Electrical Q, Q_{es}	0.46	0.40	0.56	0.49	[-]
3, 6	Total Q, Q_{ts}	0.42	0.37	0.51	0.45	[-]
4	Voice coil resistance, R_{DC}	3.2		6.0		[ohm]
5	Voice coil inductance, L_e (measured at 10 kHz)	0.086		0.14		[mH]
	Voice coil inside diameter	26		26		[mm]
	Voice coil winding height	12		12		[mm]
	Air gap height	4		4		[mm]
	Magnet weight	430		430		[g]
	Total unit net weight excl. packaging	1.04		1.04		[kg]
3, 5	K_{rm}	27		33		[mohm]
3, 5	E_{rm}	0.43		0.44		[-]
3, 5	K_{xm}	198		430		[mH]
3, 5	E_{xm}	0.17		0.14		[-]
3, 4, 5	E_{xm}	0.32		0.27		[-]

Note 1 *Measured in infinite baffle.*
Note 2 *Tested in free air (no cabinet).*
Note 3 *Measured using a semi-constant current source, nominal level 2 mA.*
Note 4 *Measured at 25 deg. C*
Note 5 *It is generally a rough simplification to assume that loudspeaker transducer voice coils exhibit the characteristics of an inductor. Instead it is a far more accurate approach to use the more advanced model often referred to as the "Wright empirical model", also used in LEAP-4 as the TSL model (www.linearx.com), involving parameters K_{rm}, E_{rm}, K_{xm}, and E_{xm}.* This more accurate transducer model is described in a technical paper here at our web site.
Note 6 After burn-in specifications are measured 12 hours after exiting the transducer by a 20 Hz sine wave for 2 hours at level 7.75/11 V_{RMS} (4/8 ohm version). The unit is not burned in before shipping.