

# 8" WOOFER



**831858**

220 WR 39 115 PPX AL DVC 8Ω+8Ω

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### Thiele Small parameters:

		Free air	Common	Baffled
Nominal impedance	Z <sub>nom</sub> (Ω):		4.0	
Minimum impedance/at freq.	Z <sub>min</sub> (Ω/Hz):		3.2/159	
Maximum impedance	Z <sub>o</sub> (Ω):		37.9	
Dc resistance	R <sub>e</sub> (Ω):		4.0	
Voice coil inductance	L <sub>e</sub> (mH):		1.4	
Capacitor in series with 4Ω (For impedance compensation)	C <sub>c</sub> (μF):		69	
Resonance frequency	f <sub>s</sub> (Hz):	23.4		22.9
Mechanical Q factor	Q <sub>ms</sub> :	3.66		3.73
Electrical Q factor	Q <sub>es</sub> :	0.43		0.44
Total Q factor	Q <sub>ts</sub> :	0.39		0.39
F (Ratio f <sub>s</sub> /Q <sub>ts</sub> )	F (Hz):			58
Mechanical resistance	R <sub>ms</sub> (kg/s):		1.92	
Moving mass	M <sub>ms</sub> (g):	47.6		49.6
Suspension compliance	C <sub>ms</sub> (mm/N):		0.97	
Effective cone diameter	D (cm):		16.9	
Effective piston area	S <sub>d</sub> (cm <sup>2</sup> ):		225.0	
Equivalent volume	V <sub>as</sub> (ℓ):		69.6	
Force factor	BL (N/A):		8.1	
Reference Voltage Sensitivity Re 2.83V 1m at 159 Hz (Calculated)	(dB):			89.8

### Magnet and voice coil parameters:

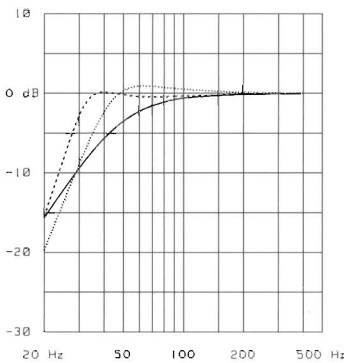
Voice coil diameter	d (mm):	39
Voice coil length	h (mm):	23.0
Voice coil layers	n :	2+2
Flux density in gap	B (T):	0.85
Total useful flux	Φ (mWb):	1.34
Height of the gap	h <sub>g</sub> (mm):	8
Diameter of magnet	d <sub>m</sub> (mm):	115
Height of magnet	h <sub>m</sub> (mm):	22
Weight of magnet	(kg):	0.87

### Power handling:

Longterm Max System Power (IEC)	(W):	200
Max linear SPL (rms)/by power	(dB/W):	108/300
Frequency range for test signal:		20-2000 Hz

Normal programme material signal with a crest factor of 6dB (IEC 268-5) is used in both tests

### Boxsimulation.



V(B)	f(3)	f(B)	f(C)	Q <sub>ts</sub>	L <sub>p</sub>	F <sub>b</sub>	D <sub>p</sub>
L	Hz	Hz	Hz		cm	Hz	cm
15	52	32	48	0.64			
20	39	30			20.0	36	5.0
40	29	25			12.0	31	5.0

### Frequency response and impedance curve.

