

FEA motor optimized  
 25 mm voice coil diameter  
 Copper and aluminum voice coil  
 Aluminum former  
 Y35 grade large ferrite magnet  
 Copper ring inside magnetic gap  
 Carbon fiber exponential cone  
 TSW rubber surround  
 ABS housing with self-damping system  
 Conex® progressive spider  
 Computer optimized design  
 Motor metal parts CNC machined



Magnet motor is optimized with FEA simulation to ensure a perfectly symmetrical magnetic flux in both directions of movement of the cone.

Great attention was paid to the axial and radial ventilation of the moving coil, this to ensure high power handling, reduced distortion, and increased durability. The stepped back allows a very long cone excursion.

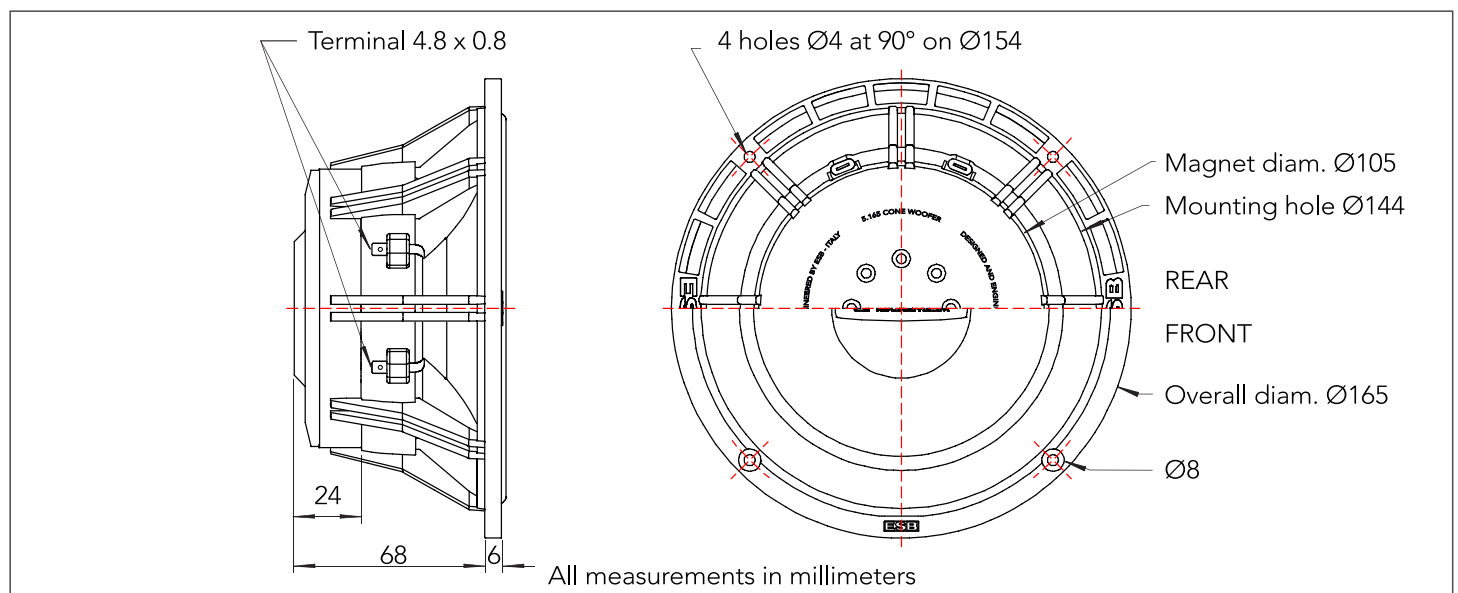
Metal parts machined from solid and refined material are CNC machined for maximum magnetic flux linearity, and minimum magnetic loss. This reduces distortion at high power levels.

A pure copper ring was inserted into the magnetic field to reduce harmonic distortion.

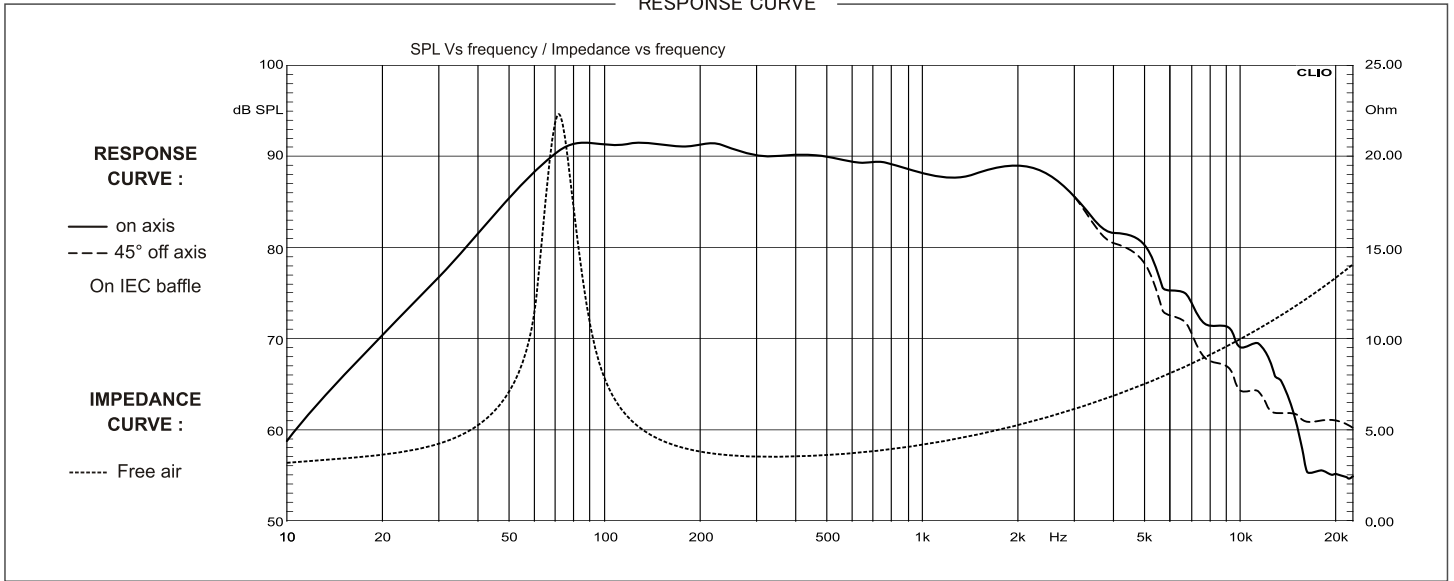
25 mm CCAW (Copper Clad Aluminum Wire) double layer voice coil wound on an aluminum former for exceptional power handling and compression-free reproduction to handle the most demanding musical passages. The carbon fiber reinforced, polymer matrix composite, exponential cone ensures an extraordinary rigidity combined with a very low weight.

The eight twin-spoke anti-resonant and self-extinguishing carbon fiber reinforced ABS frame, ensures a drastic reduction of the cone's back reflections. The frame design assures high structural and torsional rigidity. This is the goal for perfect parts alignment and very tight construction tolerances.

The exclusive ESB design of the TSW (Twin Symmetrical Wave) double-wave rubber suspension allows an excursion with perfect progression and linearity. This feature ensures natural low-frequency reproduction at low as well as at high volume. Large Conex® spider allows a smooth and gentle run at low excursions, and gently holds the cone at high excursions, thus increasing the useful frequency range.



### RESPONSE CURVE



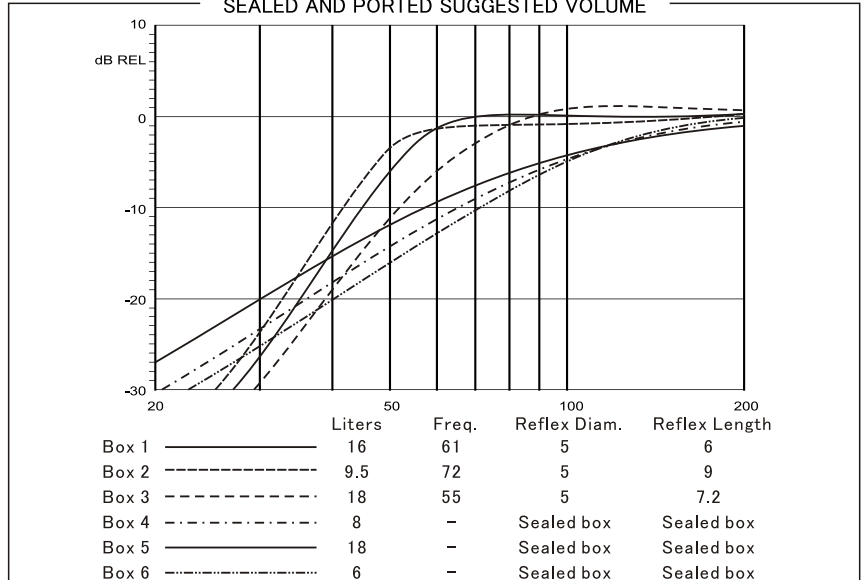
### SPECIFICATIONS

Technical Characteristics	Symbol	Value	Units
<b>GENERAL DATA</b>			
Overall Dimension	D x h	165 x 68	mm
Nominal Power Handling (AES)*	P	160	W
Transient Power *	Pp	320	W
Sensivity 1W/1m	SPL	92	dB SPL
Frequency Response		50 – 3.500	Hz
Dome Material		Carbon fibres and epoxy resin matrix	
Net Weight		1327	g
*Nominal and Transient power @ High Pass 80Hz – 12db/Oct			
<b>ELECTRICAL DATA</b>			
Nominal Impedance	Z	3	Ω
DC Resistance	Ω	2.5	Ω
Voice coil Inductance	L <sub>bm</sub>	0.24	μH
<b>VOICE COIL AND MAGNET PARAMETERS</b>			
Voice Coil Diameter	Dia	25	mm
Voice coil Height	h	13.5	mm
Magnetic Gap Height	HE	5.0	mm
Max Linear excursion	X <sub>max</sub>	±13.5	mm
Voice Coil Former		Aluminum	
Number of layers	n	2	
Magnet System		Ferrite Y35 grade	
Efficiency	η°	0.65	%
BL Product	BxL	5.16	Na
Magnet dimension	∅ x ∅ x h	100x45x15	mm
Magnet weight	m	395	g
<b>T&amp;S PARAMETERS</b>			
Suspension Compliance	C <sub>ms</sub>	0.4	N/m
Mechanical Q Factor	Q <sub>ms</sub>	4.0	
Electrical Q Factor	Q <sub>es</sub>	0.5	
Total Q Factor	Q <sub>ts</sub>	0.45	
Mechanical Resistance	R <sub>ms</sub>	1.3	Ω
Moving Mass	m <sub>ms</sub>	12.1	g
Eq. Comp. Air Load	VAS	9.47	l
Resonance Frequency	F <sub>s</sub>	71.3	Hz
Effective Piston Area	SD	143	cm <sup>2</sup>

### CROSSOVER VALUE

Fc	Crossover frequency	Hz
L	Inductor	mH
C	Capacitor	μF
R	Resistance	Ω
S	Crossover Slope	dB/Oct

### SEALED AND PORTED SUGGESTED VOLUME



### SUGGESTED APPLICATION

