

## IMPACT SERIES ENGINEERING INFORMATION

The Impact series of full-range, passive loudspeakers has been designed to be used in a variety of installed sound system applications ranging from discotheques, clubs and wine bars to theatres, themed environments and places of worship. In addition, thanks to its elegant styling and practical durability, Impact is ideal for many mobile sound system applications.

The Impact 80 enclosure is manufactured using a unique 'foam-in-place' rotational moulding technique, giving an attractive and extremely durable finish, plus the added benefit of eliminating resonances in the cabinet walls. Impact enclosures are made from recyclable materials.

The Impact 80 is a passive 2-way reflex box design using a proprietary 8" low frequency drive unit matched to an HF device with an internal passive crossover. Its physical design is symmetrical, allowing the speaker to be mounted vertically or horizontally

without altering the 80° horizontal x 80° vertical dispersion pattern. Input to the Impact 80 is via a single pair of colour coded screw-type banana terminals, serving as both the input from the power amplifier and a parallel connection to additional loudspeakers.

A pole mount socket is moulded into the bottom of the enclosure, thereby allowing the Impact 80 to be used on tripod stands for audio visual applications or on top of bass enclosures from the Turbosound range. An integral moulded handle is provided at the rear for easy lifting and carrying. A versatile range of load tested mounting hardware is available that allows Impact range enclosures to be permanently fixed in installations to walls and ceilings in a wide variety of ways.

**Recommended complementary products:**  
Impact 110.2 sub bass enclosure



### FEATURES

- Rotationally mounted enclosure
- Range of fixing hardware

### APPLICATIONS

- Discotheques and clubs
- Themed environments

<b>DIMENSIONS (HxWxD)</b>	480mm x 295mm x 250mm (18.9" x 11.6" x 9.8")		
<b>NET WEIGHT</b>	8kg (17.6lbs)		
<b>COMPONENTS</b>	1 x 8" (203mm) driver, 1 x HF device		
<b>FREQUENCY RESPONSE<sup>1</sup></b>	70Hz to 20kHz @±4dB		
<b>NOMINAL DISPERSION</b>	80°H x 80°V		
<b>POWER HANDLING</b>	125 watts r.m.s., 250 watts program, 315 watts peak		
<b>SENSITIVITY<sup>2</sup></b>	93dB SPL, 1 watt @ 1 metre		
<b>CALCULATED MAX SPL</b>	117 dB (continuous) <sup>3</sup> 123dB (peak) <sup>4</sup>		
<b>NOMINAL IMPEDANCE</b>	16 ohms		
<b>CROSSOVER</b>	Integral passive crossover at 4,200Hz		
<b>CONSTRUCTION</b>	Foam-in-place rotationally moulded enclosure, finished in TurboBlue™ Integral pole mount socket and carrying handle		
<b>GRILLE</b>	Black powder-coated perforated steel grille		
<b>CONNECTORS</b>	Screw type banana terminals		
<b>OPTIONS</b>	Optional colours available to order:		
	Postbox red (346)	Turquoise (55455)	Charcoal grey
	Mid grey (88273)	White	Lime green (269)
	Crimson red (079)	Avocado green (383)	Racing green (384)
	Orange (365A)	Sky blue (018D)	Yellow (320)
<b>SPARES AND ACCESSORIES</b>	07B500 WB-100	Adjustable telescopic wall bracket	
	07B502 SM-100	Single point mount	
	07B506 CB-100	Adjustable telescopic ceiling bracket	
	07B504 SX-100	Single point mount extension bracket	
	07B508 PA-100	Pole mount assembly	
	04B100 LS-8050	LF driver for IMPACT 80	
	04B214 TW-508	HF driver for IMPACT 80	
	10G430 PX-80	Passive crossover for IMPACT 80	
	07A940 MG-IMP80	Metal grille for IMPACT 80	

All measurements are actual figures taken from real-time testing using stated inputs, free from any filtering or weighting. Therefore actual figures may significantly exceed that of other manufacturers with higher published weighted ratings.

Notes

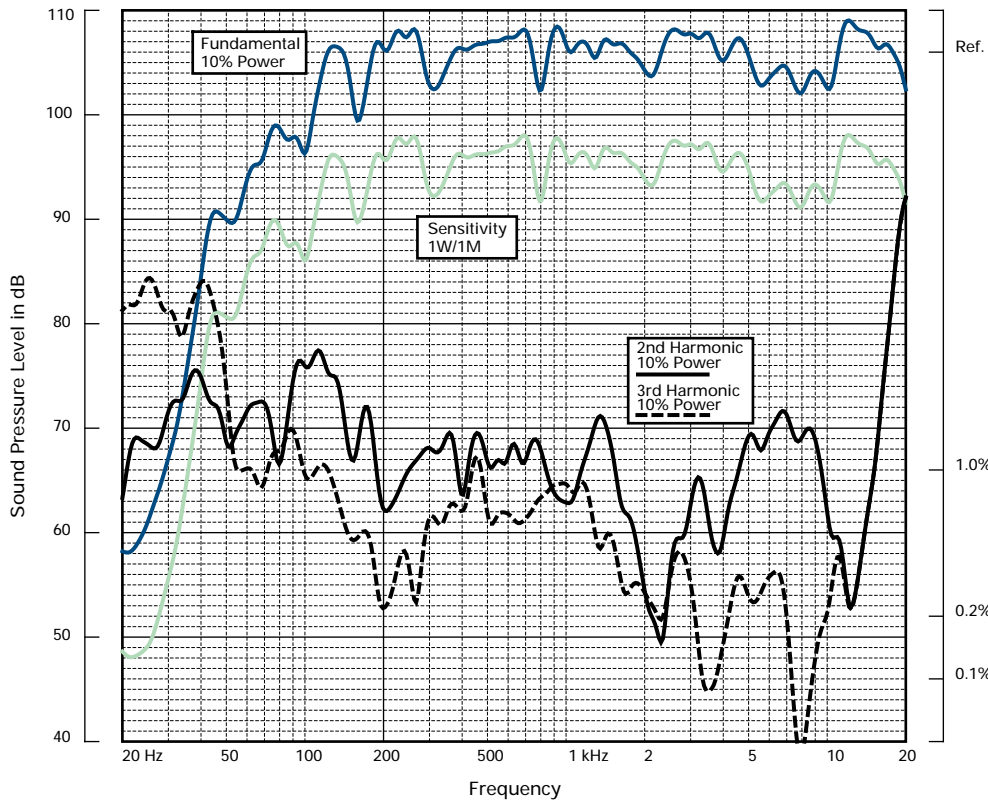
<sup>1</sup> Measured on axis

<sup>2</sup> Average over stated bandwidth

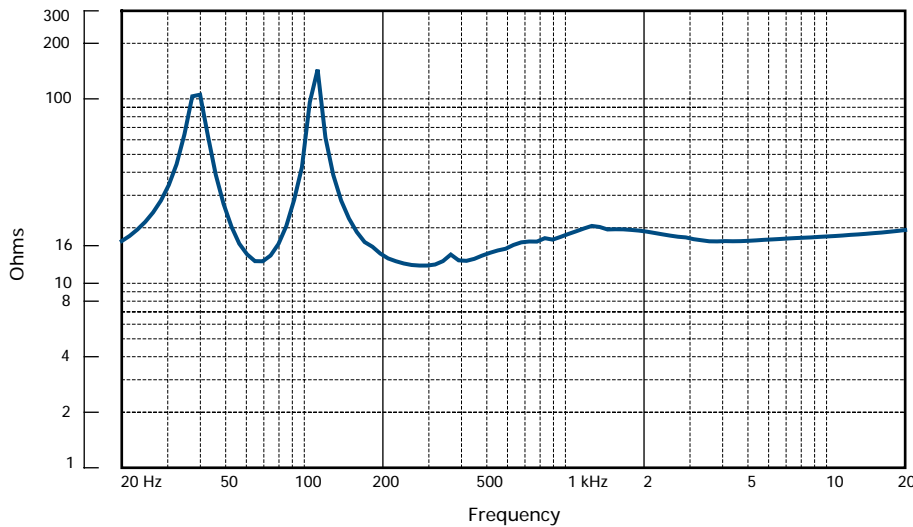
<sup>3</sup> Measured at 1 metre

<sup>4</sup> Verified by subjective listening tests of familiar program material, before the onset of perceived signal degradation

**FREQUENCY RESPONSE**



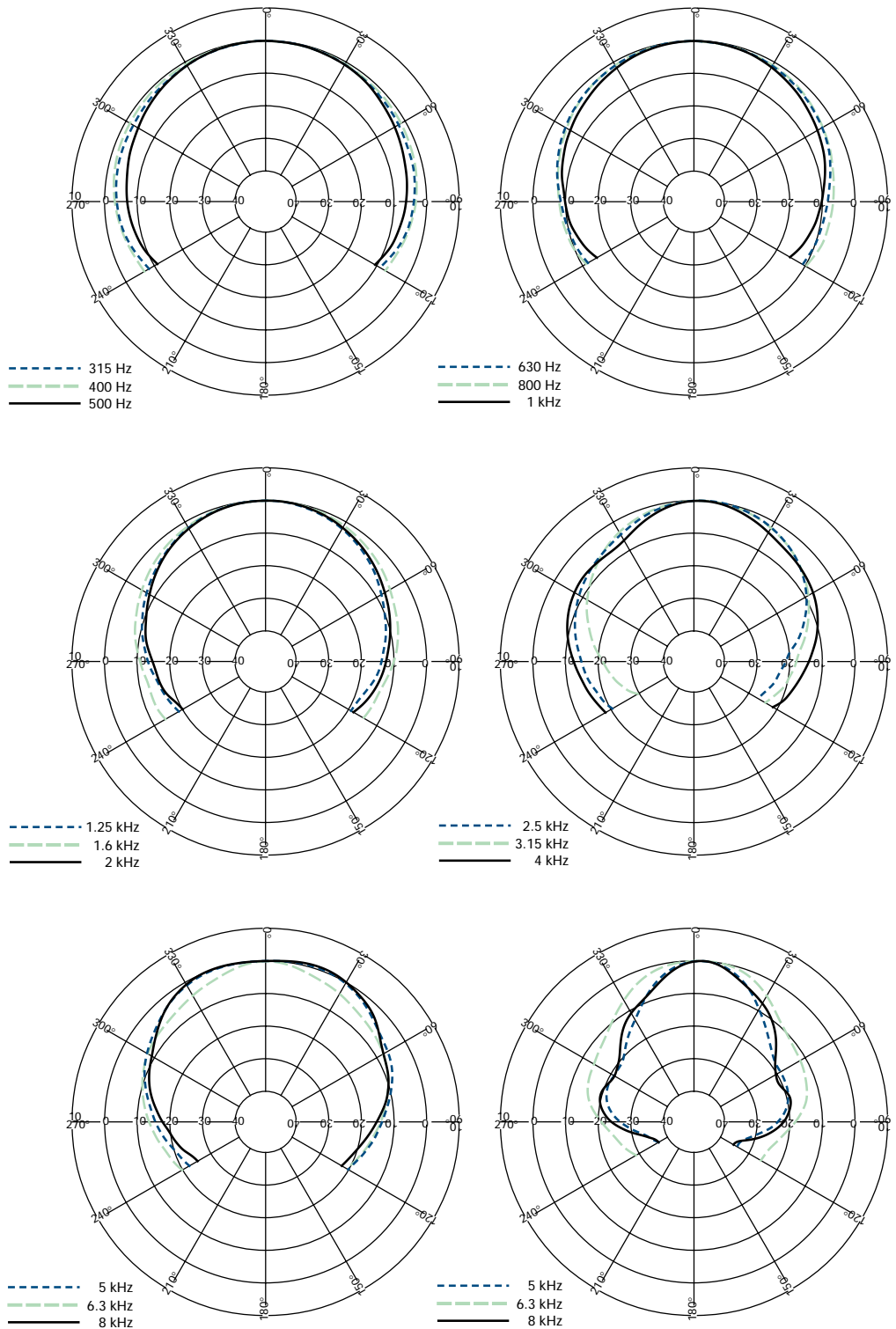
**IMPEDANCE**



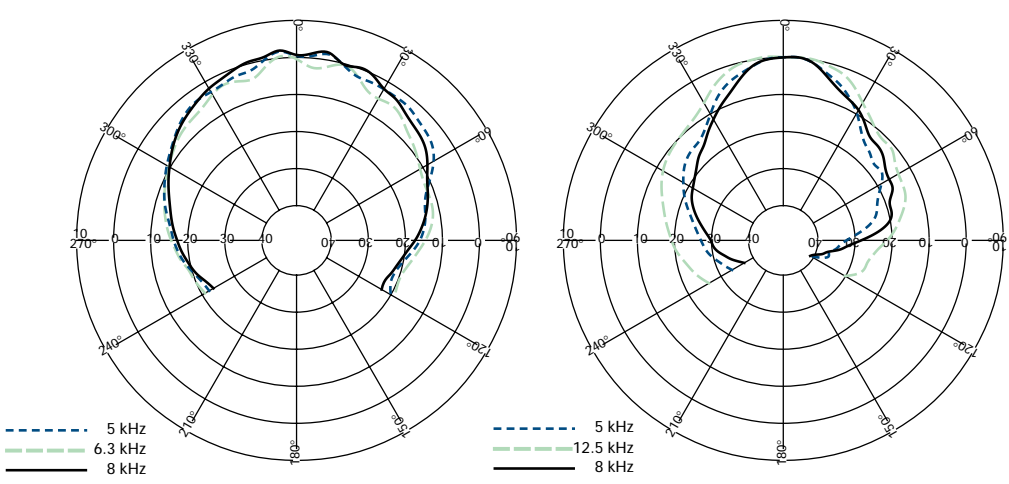
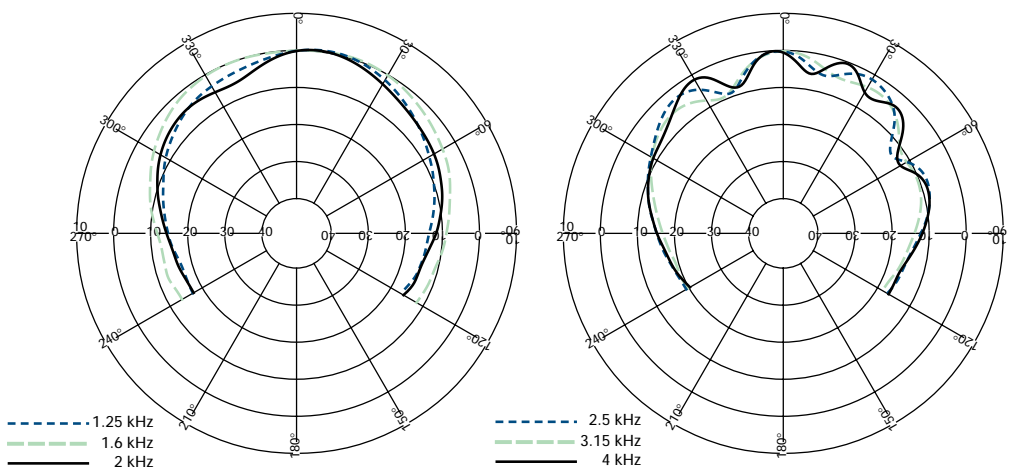
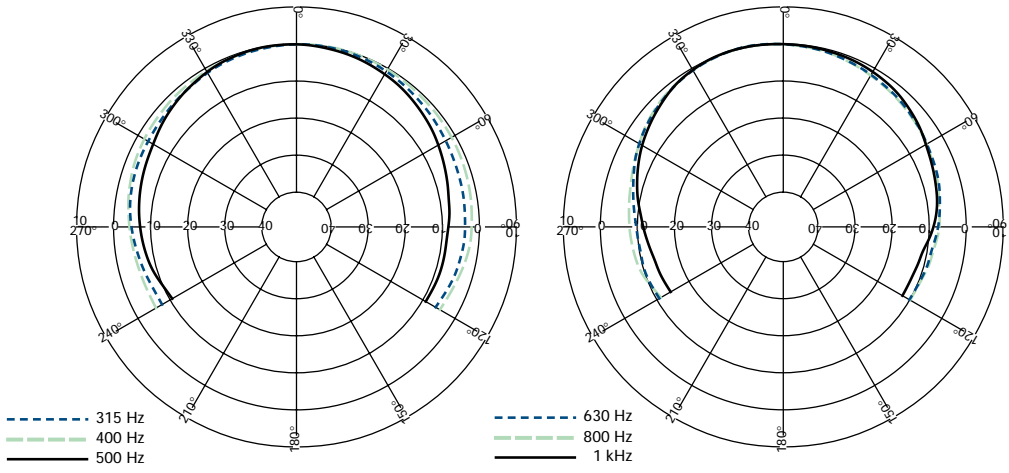
**Impedance** A constant current circuit was used to measure the impedance. **Frequency response** The frequency response shown was obtained by feeding a swept sine wave through the system in a half space environment. The position of the microphone was vertically on-axis at a distance of 2 metres, then scaled to represent 1 metre. **2nd & 3rd Harmonic Distortion** Distortion measurements were obtained using an Audio Precision harmonic distortion analysis system and comply with AES recommendations for enclosure measurement (AES paper ANSI S4-26-1984). **Data Conversion** All graphs were digitally generated using the APEX custom software system, designed to translate data derived from Audio Precision 'System One' test equipment into AutoCAD™. This program enables graphical information to be plotted to a high degree of accuracy.

**NOTES ON MEASUREMENT CONDITIONS**

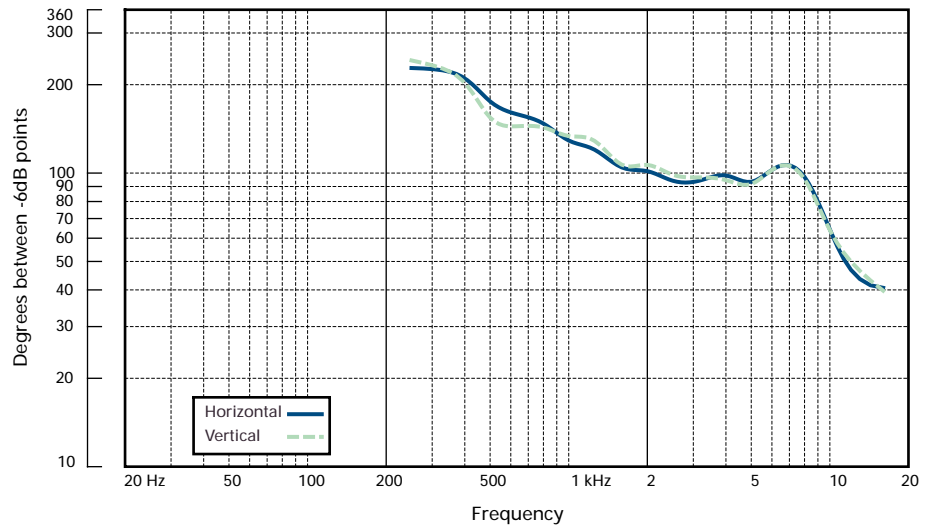
HORIZONTAL THIRD  
OCTAVE POLARS



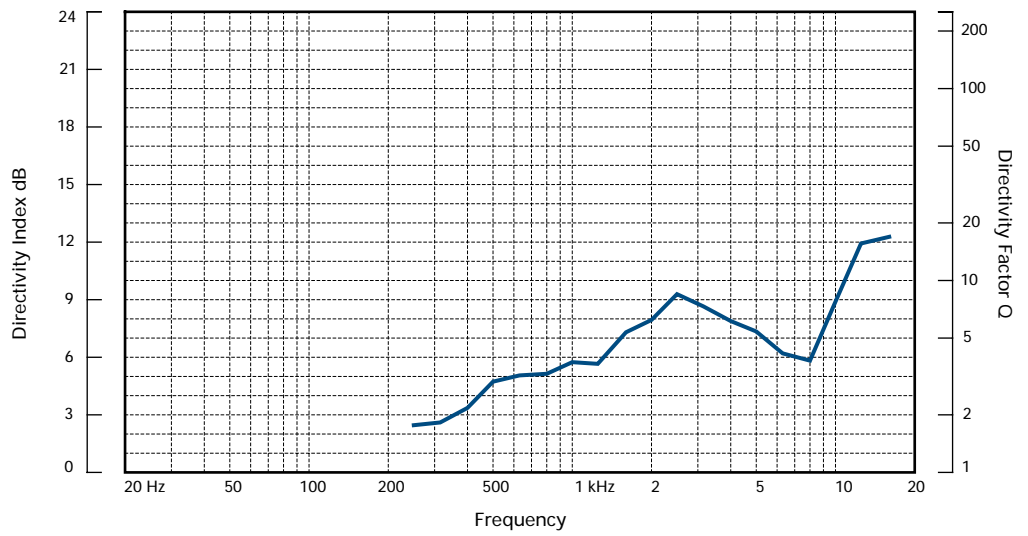
VERTICAL THIRD  
OCTAVE POLARS



BEAMWIDTH



DIRECTIVITY

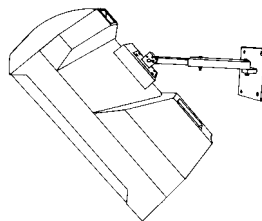
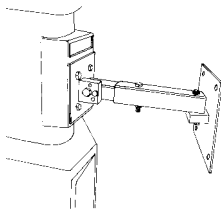
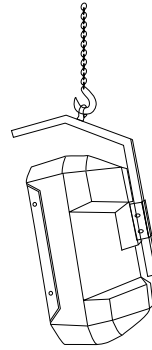


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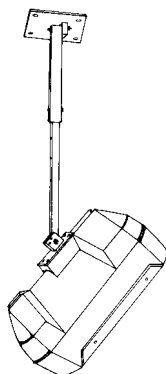
A range of fixing and mounting hardware is optionally available to implement safe and effective installations in a variety of differing situations. An integral moulded 'top hat' fitting is incorporated into the base of IMPACT 80 enclosures, allowing it to be used with standard 35mm diameter loudspeaker stands and with the PA-100 straight pole assembly.

**FLYING AND MOUNTING  
 HARDWARE**

A single point mount, **SM-100**, is used for attaching the IMPACT 80 to single point suspension systems such as TV spigots. A range of adjustments allows either loudspeaker to be flown upside down if required



An adjustable telescopic wall bracket, **WB-100**, allows the IMPACT 80 to be fixed to walls in a variety of possible horizontal and vertical orientations. The vertical orientation of the loudspeaker can be adjusted in 15° increments as shown from 0° (vertical) to 45° of downward inclination



A telescopic ceiling bracket, **CB-100**, is used to fix the IMPACT 80 to ceilings, including false ceilings. Several horizontal and vertical orientations are possible

**ARCHITECTURAL  
& ENGINEER'S  
SPECIFICATIONS**

The loudspeaker shall be of the 2-way passive type consisting of one 203mm (8") low frequency loudspeaker and one high frequency device. Performance specifications of a typical production unit shall meet or exceed the following: frequency response, measured with a swept sine-wave input, shall be flat within  $\pm 4\text{dB}$  from 70Hz - 20kHz. Nominal impedance shall be 16 ohms. Power handling shall be 125 watts r.m.s., 250 watts program, 315 watts peak. Sensitivity measured with 1 watt input at 1 metre distance on axis, mean averaged over stated bandwidth, shall be 93dB. Maximum SPL (peak), measured with music program at stated amplifier power, shall be 123dB. Dimensions: 480mmH x 295mmW x 250mmD (18.9" x 11.6" x 9.8"). Net weight: 8kg (17.6lbs). Total enclosure volume shall not exceed 0.24 cu metres. The loudspeaker system shall be the Turbosound Impact 80. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verify that the above combined performance/size specifications are equalled or exceeded.

**DIMENSIONS**

