



Challenger series

C18-1000V1



Specifications

General Specifications

Nominal diameter.....	457 mm/18 in
Power rating.....	1400 W(AES)
Nominal impedance.....	8Ω
Sensitivity.....	97 dB
Frequency range.....	30-200 Hz
Chassis type.....	Aluminum
Magnet type.....	Ferrite
Magnet weight.....	125.7 oz
Voice coil diameter.....	99.3 mm/4 in
Coil material.....	Copper Wire
Former material.....	Glass fiber
Cone material.....	Paper
Surround material.....	Cloth
X-max.....	4.75 mm
Gap depth.....	15.5 mm

Thiele Small Parameters

FS.....	43Hz
Re.....	5.8Ω
Qms.....	.13
Qes.....	.054
Qts.....	.052
Mms.....	165.37 g
Mmd.....	139.75 g
Vas.....	182.51 lt.
Sd.....	1257 cm ²
Bl.....	21.87 Tm
Cms.....	8.3 e-05 m/N
Rms.....	3.46 Ns/m
Le (at 1kHz).....	1.01 mH

Features

- 4" Large Format Voice Coil
- 5500 Watts Peak Power Handling
- Active Balanced Cooling
- Ferrite Magnetics
- Precision Circular Wire Inside/Outside Coil Design
- Single Spider Suspension
- Integrated Demodulation Rings
- High Excursion Half Roll Rubber Surround
- Die Cast Aluminum Chassis

Applications

The C18-1000V1 is a high output low frequency transducer. The 18 inch (457mm) diameter piston will produce extremely high sound pressure levels at very low frequencies and is ideal for high level deep bass and sub-woofer response in both live sound and recorded music venues. The operating range is 30Hz to 200Hz. The transducer uses high energy ferrite magnetics to achieve a very high acoustic output to weight ratio.

The C18-1000V1 employs a very large 4 inch (99.3mm) diameter voice coil that provides an AES rated 1000 watts of continuous power handling and a full 4000 watts of peak rated power handling when sufficient amplifier headroom is available. It is recommended that the transducer be loaded into a properly designed vented enclosure and that active high order high pass filtering be employed if extremely high power levels are expected as low frequencies. The C18-1000V1 utilizes P.Audio's Auto Balanced Cooling (ABC) technology to not only improve transducer power handling and reliability but to also increase power compression performance by carefully balancing and directing airflow to critical areas.

The voice coil design is an "inside/outside" geometry with P.Audio's square wire technology to improve conversion efficiency and provide a very large cross-sectional area for superior cooling.

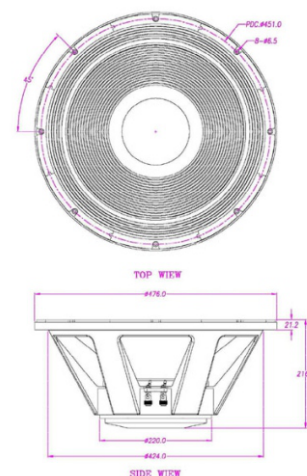
System Linearity is achieved by employing magnetic flux demodulation devices in the structure to increase fidelity and sonic accuracy. The system suspension has been designed specifically for high linear displacement and extended low frequency response. The double spider design insures very high displacement and linear response while maintaining excellent control. The transducer chassis is a die cast aluminum design that insures a very high degree of structural integrity.

Packing Dimensions

WxDxH (mm).....505 x 505 x 250

Weight

Net Weight.....14.2 kg/31.3 lb
Shipping Weight.....16.0 kg/35.3 lb



Frequency Response & Impedance Curve

