



CHALLENGER™ Series II C-18ELF



Applications

C-18ELF

The Challenger Series II from P Audio represents another evolutionary step for a very successful product line. The C-18ELF is an 18 inch (476mm) diameter extended low frequency sub bass and sub woofer transducer. The large format 4 inch (101.6mm) diameter voice coil assembly provides very high power handling and extended reliability. This large coil diameter and large magnetic system couple to produce excellent thermal dissipation and excellent power compression performance in the rated operating range. The C-18ELF features an operating bandwidth of 30Hz to 100Hz and is designed for very high sound pressure level applications such as dance floor sub woofers and applications where very low frequency material is specified.

The Challenger C-18ELF features an aluminum die cast chassis and optimized geometry Ferrite based permanent magnet. This design has been computer optimized for extended maximum linear excursion and is capable of generating very high acoustic power levels at very low frequencies. The suspension system is matched to the voice coil displacement to provide clean and accurate response even at high power levels. The voice coil design features a rectangular geometry wire in an edge wound configuration to produce maximized conversion efficiencies.

The C-18ELF is well suited for permanent installation applications and will provide long term elevated acoustic output at very low frequencies. The C-18ELF is also excellent for generating very low frequency special acoustic effects.

Specifications

GENERAL SPECIFICATIONS

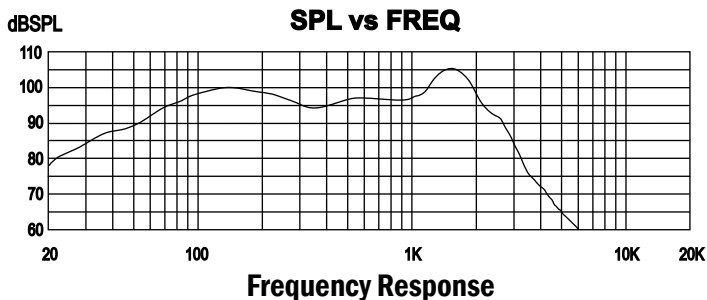
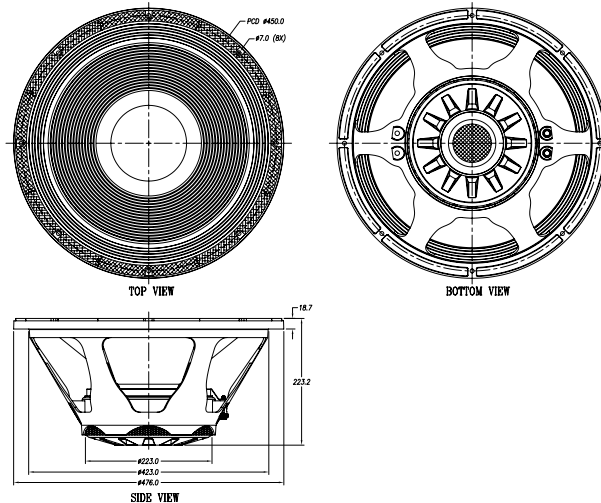
Nominal Impedance	8 Ω
Power	800 Watt (rms)
SPL 1W@1M average sensitivity	96 dB
Frequency Response	30Hz - 100Hz
Dimension Ø x H (cm)	47.6 x 22.3
Net Weight	12.8 kg (28.2 lbs)
Shipping Weight	14.8 kg (32.6 lbs)
Packing Dimension H x W x D (cm)	49.5 x 49.5 x 27.5 (2.4cu.ft)
	19.5" x 19.5" x 10.8"

PHYSICAL SPECIFICATIONS

Magnet type	Ferrite
Voice Coil Diameter	101.6 mm (4 inch)

THIELE/SMALL PARAMETERS

Resonance Frequency	Fs	41 Hz
DC Resistance	Re	6.1 Ω
Coil Inductance	Le	0.81 mH
Mechanical Q Factor	Qms	6.76
Electrical Q Factor	Qes	0.52
Total Q Factor	Qts	0.48
BL Product	BL	24.76 Tm
Effective Moving Mass	Mms	198.64 g
Equivalent Cas Air-Load	Vas	148.56 Liters
Effective Piston Area	Sd	0.12 Sqm
Half-Space Efficiency	Eff	2.01 %
Airgap Height	Hag	10.0 mm
Voice Coil Height	Hvc	26.0 mm
Voice Coil Overhang	Xmax	8.0 mm



19/4 Moo 2 T.Bangkratok A.Samparn Nakornpathom 73210 Thailand
 Tel: +66-2-441-6600 Auto 30 Lines
 e-mail: info@paudiothailand.com
 Website: www.paudiothailand.com
 All rights reserved by P.Audio System Co.,Ltd. 2007

