



CHALLENGER™ Series II C-18LF



Specifications

GENERAL SPECIFICATIONS

Nominal Impedance	8 Ω
Power	800 Watt (rms)
SPL 1W@1M average sensitivity	97 dB
Frequency Response	40Hz - 120Hz
Dimension \varnothing x H (cm)	47.6 x 22.3
Net Weight	13 kg (28.6 lbs)
Shipping Weight	15 kg (33 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	42 Hz
DC. Resistance	Re	6.1 Ω
Coil Inductance	Le	0.47 mH
Mechanical Q Factor	Qms	8.98
Electrical Q Factor	Qes	0.81
Total Q Factor	Qts	0.75
BL Product	BL	20.54 Tm
Effective Moving Mass	Mms	210.42 g
Equivalent Cas Air-Load	Vas	134.99 Liters
Effective Piston Area	Sd	0.12 Sqm
Half-Space Efficiency	Eff	1.24 %
Airgap Height	Hag	10.0 mm
Voice Coil Height	Hvc	20.0 mm
Voice Coil Overhang	Xmax	5.0 mm

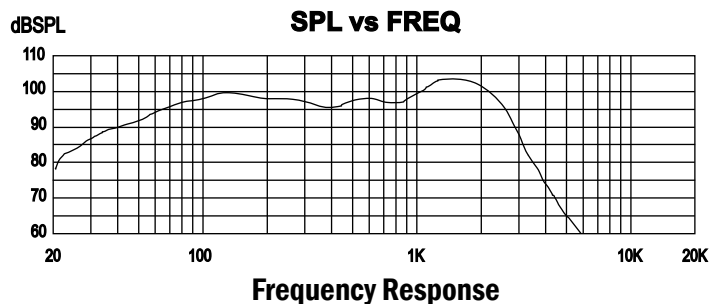
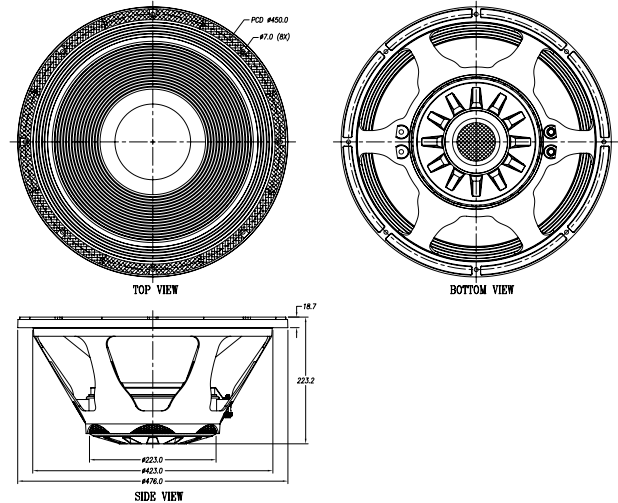
Applications

C-18LF

The Challenger Series II C-18LF has been designed to provide very high acoustic output from 40Hz to 120Hz. This 18 inch (476mm) diameter woofer has an optimized efficiency/bandwidth product that provided maximum efficiency with standard sound reinforcement frequency range requirements for subwoofer applications. It is typical to band limit large format touring systems and permanent installation public address systems to prevent the input of damaging ultra low frequency material. Because this low frequency protection is generally set to the range of 40Hz the C-18LF has been optimized to provide maximum output in the typical operating range. The large diameter voice coil design features a 4 inch (101.6mm) voice coil diameter and large cross sectional area coil for maximum heat dissipation. The C-18LF also features an aluminum based edge wound voice coil construction.

The C-18LF is a Ferrite magnetics based design that also features a rugged aluminum die cast chassis. The mechanical suspension system has been optimized for high linear displacement within the rated operating range and input power rating of the transducer.

This high efficiency design will produce high impact bass performance and is well suited for touring sound applications and permanent installation systems where live music is the dominant input signal.



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
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