

HD690CF Subwoofer Technical Data

Specifications

Diameter: 6X9" (150X225mm)

Sensitivity: 89dB

Power Handling: 125 WRMS (250W Pk)

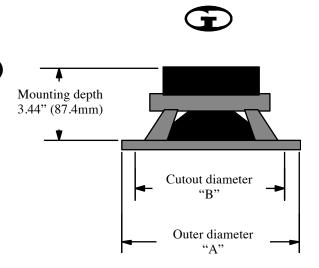
Frequency Response: 53 ~ 2,500 Hz

Nominal Impedance: 4 Ohms

Voice Coil Diameter: 1.5" (38.1mm)

Peak Xmax: 14mm
Magnet Weight: 30oz
Surround Rubber

Frame Black Steel
Cone Carbon Fiber



Thiele-Small Parameters

Cutout diameter is an ellipse with a 6.25"X8.75" (158.75X 222.25mm), hole.

Free Air Resonance: 53.16 Hz

Voice Coil DC Resistance: 4.061 ohms

Voice Coil Inductance @ 1 kHz: 1.021 mH

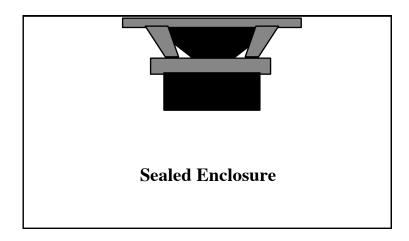
Mechanical Q (Q_{ms}): 8.784

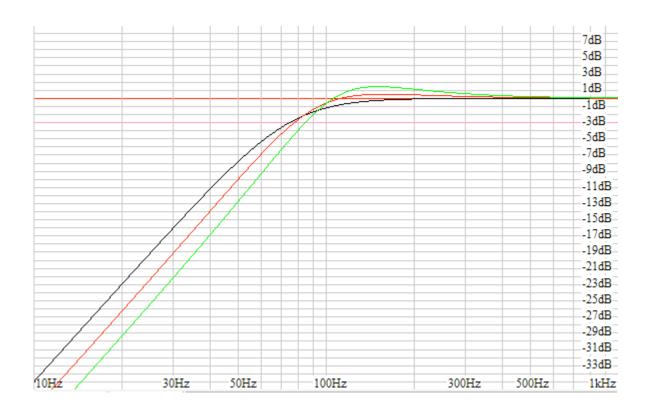
Flectrical Q (O): 0.5335

Electrical Q (Q_{es}): 0.5335 Total Q (Q_{ts}): 0.503

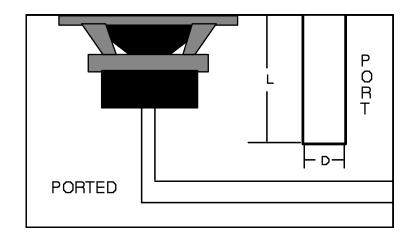
Compliance Volume (V_{as}): 18.243L; 0.6435 ft³

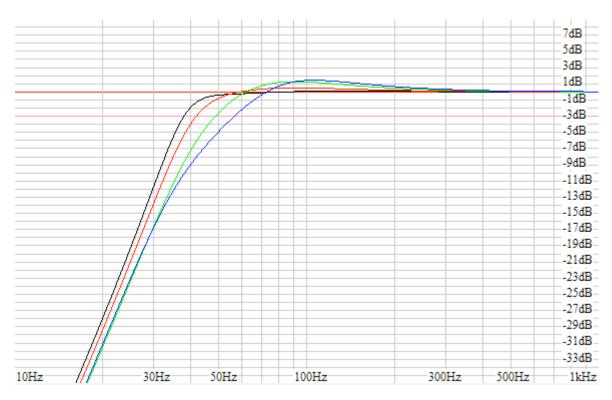
Moving mass, Diaphragm: 30.53Gr Motor Force Factor: 8.81Tm Outer diameter is an oval with 4 punched ears which allow the screw holes to fall on the outer diameter of 6.75"X9.25" (171.45X234.95mm) and on a rectangle of 4.87"X6.5" (123.7X165.1mm).





Sealed Box Responses for different sealed box volumes: Qt = 0.71 black, 0.66 cubic foot; 0.86 red, 0.33 cubic feet and 1.03 green, 0.2 cubic feet.





Ported Box responses for selected cubic feet (cft.) volumes: Black=1.3cft. Red=1cft. Green=0.7cft. Blue=0.5cft. All ports are 3" dia. Tuned frequency and port length are as follows:

Black = 42Hz and 5.95" long.

Red = 45Hz and 7.03" long.

Green = 50Hz and 8.48" long.

Blue = =50Hz and 12.74" long.

Responses are into half space - not cabin corrected