Model B110
Specification Number SP1057

Compact, long throw bass/mid range unit, suitable for use in either a compact full range system, or as a specialised mid range unit in a multi-way system.

Net weight: 1.13 kg (2.5 lb)
Nominal impedance: 8Ω
Nominal frequency range: 55-3,500 Hz
Typical enclosure volumes:
Totally enclosed box 5-10 litres (0.2-0.4 cu ft)
MF enclosure 4 litres (0.15 cu ft)
Power handling:
Continuous sine wave 28 V RMS (see note 1)
Programme full range 50 W (see note 2)
Programme mid range only 150 W (see note 2)
Magnet:
Flux density 1.0 T (11,000 gauss)
Total flux 5.6 x 10^-4 Wb (58,000 Maxwells)
Sensitivity: Pink noise input for 96 dB SPL at
1 metre on axis 11.2 V RMS
Voice coil:
Diameter 26 mm (1 in)
Inductance 0.45 mH
Max continuous service temperature (30 min) 250°C
Max intermittent temperature (5 sec) 340°C
Thermal time constant 11 seconds
Thermal resistivity (temp rise per applied Watt) 6.2°C/W
Nominal DC Resistance, Rdc 7.1Ω (tolerance ±10%)
Typical production spread 6.7±0.2Ω (see note 3)
Minimum impedance (in nominal frequency range)
7.8Ω at 280 Hz
Diaphragm:
Effective area, Sd 92 cm² (14 sq in)
Effective moving mass, Md 9.8 gm
Max linear excursion, X0 6 mm peak-peak (½ in)
Max damage limited excursion 12 mm peak-peak (½ in)
Free air resonance frequency, fs:
Nominal 37 Hz (tolerance ±5 Hz)
Typical production spread 38.0±2.0 Hz (see note 3)

Total mechanical resistance of suspension, Rms:
1.0 mech Ω
Suspension compliance, Cms: 1.8 x 10^-3 m/N
(1.8 x 10^-6 cm/dyne)
Equivalent volume of compliance, Vms: 23.6 litres
(1,440 cu in)
Force factor, Bl: 7.1 N/A
Damping:
Mechanical Qm 2.44
Electrical Qe 0.38
Total Qr 0.33 (see note 4)

Notes
1 Continuous Power Rating (Pc).
Pc = \frac{V^2}{R}
V is the RMS voltage which can be applied to the
unit continuously without thermal overload of
the voice coil. At low frequencies the continuous
power rating of the speaker may be reduced
because of limitations imposed on diaphragm
excursion by the acoustic loading.
2 The programme rating of a unit is equal to the
maximum programme rating of any system with
which the unit may be safely used in conjunction
with the recommended driving network and
enclosure.
The programme rating of any system is the
undistorted power output of an amplifier with
which the system may be satisfactorily operated
on normal programme over an extended period of
time.
3 "Typical production spread" is derived from
statistical analysis of a large number of units, and
is calculated to include 95% of all units.
4 \[ Q_m = \frac{2\pi f_s M_0}{R_{ms}} \quad Q_e = \frac{2\pi f_s M_0}{B_l^2 R_{dc}} \quad Q_r = \frac{1}{Q_m} + \frac{1}{Q_e} \]