B300·B
Specification Number SP1071

Low frequency unit with visco-elastic damped Bextrene diaphragm and high temperature coil assembly, suitable for use where low distortion and high power handling are required.

Net weight: 3.75 kg (8 lb 4 oz)
Nominal impedance: 8 ohms
Nominal frequency range: 25-2,000 Hz
Typical enclosure volumes:
- Totally enclosed box: 65-75 litres
- Reflex: 90-180 litres

Power handling:
Continuous sine wave 35 V RMS (see note 1)
Programme 200 W (see note 2)

Magnet:
Flux density 1.02 T (10,200 gauss)
Total flux 1.3 mWb (130 k Maxwells)

Voice coil:
Nominal diameter 52 mm
Nominal DC resistance, $R_{DC}$: 6.9 ohms (tolerance ± 5%)
Minimum impedance 7.8 ohms at 120 Hz (in nominal frequency range)
Max continuous service temperature (30 min) 250°C
Max intermittent temperature (5 sec) 340°C

Diaphragm:
Effective area, $S_e$: 520 cm²
Effective moving mass, $M_0$: 73 gm
Max linear excursion, $x_p$: 12 mm peak-peak
Max damage-limited excursion 25 mm peak-peak

Free air resonant frequency, $f_r$:
Nominal 23 Hz (tolerance ± 5 Hz)

Total mechanical resistance of suspension, $R_{MS}$: 2.0 mech ohms

Suspension compliance, $C_{MS}$: 6.8 x 10⁻⁴ m/N
Equivalent volume of compliance, $V_{AS}$: 250 litres

Force factor, $B_1$: 12 N/A

Damping:
Mechanical $Q_m$: 5.3
Electrical $Q_e$: 0.50
Total $Q$: 0.46 (see note 3)

Notes
1 Continuous Power Rating ($P_c$).

$$P_c = \frac{V^2}{R}$$

$V$ 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 dividing 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.

$$Q_r = \frac{2\pi f_s M_0}{R_{MS}}$$
$$Q_e = \frac{2\pi f_s M_0}{(BI)^2/R_{DC}}$$
$$Q_r = Q_m + Q_e$$

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KEF reserve the right to incorporate developments and amend the specification without prior notice, in line with continuous research and product improvement.