

QUAD

303

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Quad 303

The Quad 303 power amplifier is intended for normal domestic use with loudspeakers of moderate efficiency, but is also used by broadcasting and recording studios, groups and discotheques world wide, who appreciate its excellent performance and dependability.

The outstanding performance of the Quad 303 is largely due to the unique output circuit developed by Quad.*

The circuit employs symmetrical triples, greatly reducing distortion and rendering the quiescent current independent of output transistor temperature.

This development enables the designers to reduce distortion to any desired degree without sacrificing stability, and to maintain this excellence under all dynamic conditions.

To put this in perspective, the lowest theoretical distortion present on the very best tape and disc will still be some hundred times greater than that of the Quad 303.

Such a level is, of course, completely inaudible no matter how refined the test.

The use of triples, permits simple and effective control of the output current and since the voltage is also controlled, the output transistors are completely protected and must always operate within their ratings with the obvious advantages of greatly improved reliability under all conditions, without the use of elaborate and expensive circuitry.

The amplifier cannot be upset even when overdriven by an asymmetrical signal or by shorting or disconnecting the loudspeakers.

The Quad 303 is normally used with the Quad control unit, but can readily accommodate other signal sources. Since it has no controls it can be mounted out of sight in a well ventilated cabinet.

The amplifier won a Council of Industrial Design Award in 1969.

Note: Quad electrostatic loudspeakers prior to serial no. 16800 must be modified for use with the Quad 303 amplifier.

* See Wireless World April 1968 for details.

Quad 303 specification.

Measurements apply to either channel, with or without the other channel operating.

Power output The amplifier is intended for use with loudspeakers of 4-16Ω nominal impedance. Power output and distortion for various frequencies. Continuous sine wave into 8Ω resistive load.

100Hz any level up to 45 watts <0.03% D_{tot}

1kHz any level up to 45 watts <0.03% D_{tot}

10kHz any level up to 45 watts <0.1% D_{tot}

For other impedances and frequencies see graphs.

Note: In addition to the performance into a resistive load, the amplifier will maintain full voltage within the same distortion rating irrespective of the phase angle of the load.

Output internal impedance 0.3Ω in series with 2000μF and 6μH.

Frequency response Ref. 1kHz. -1dB at 30Hz and 35kHz into 8Ω

Signal input level 0.5V rms ±0.5dB for 45watts into 8Ω. Amplifier loads the input by 22kΩ in parallel with 60pF.

Signal input overload Instantaneous recovery up to +20dB overload.

Crosstalk (input loaded by 1kΩ). 30Hz-10kHz > 60dB.

Hum and noise (Input loaded by 1kΩ). 'A' weighted - 100dB ref full power. Unweighted (15.7kHz measurement bandwidth) - 95dB ref full power.

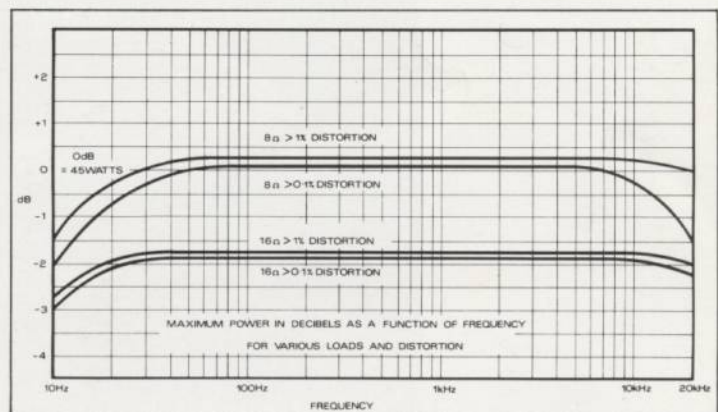
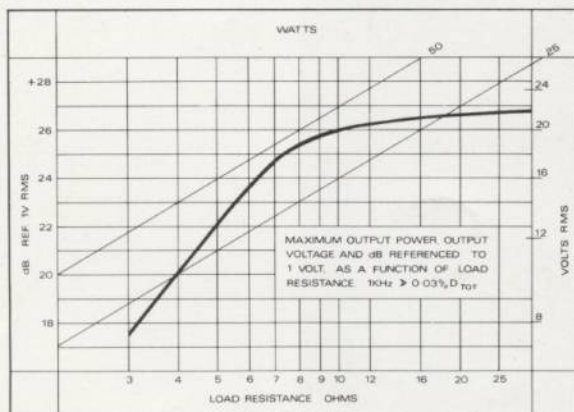
Protection This amplifier is suitable for use under the most arduous music conditions with speakers of impedances between 4 and 25Ω and for high level sine wave duty with loads of 8Ω or greater.

Stability Unconditionally stable with any load.

Power input 100-125 or 200-250V. 50-60Hz, 40-200 watts depending on signal level.

Weight 8.2kg.

Dimensions Width 120mm Height 159mm Depth 324mm (plus 38mm for connectors).



QUAD for the closest approach
to the original sound

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