

HALCRO dm68 monoblock power amplifier

Specifications and Features

POWER

Power output into 4ohms resistive > 400W

Power output into 8ohms resistive > 225W

DISTORTION (Footnote 1)

At full power output, all harmonic distortion orders

THD <-120dB (< 1000 parts per billion) up to 20kHz (100kHz B.W.) at 400W into 4ohms.

THD @ 1kHz is <-134dB (<200 parts per billion).

For a sum of 19 and 20kHz tones, each delivering 100W into 4ohms = peak power 400W, intermodulation products each <-120dB relative to output.

SMPTE-IM intermodulation products each <-120dB relative to output

INPUTS

There are 4 input modes:

- An unbalanced voltage mode input with an impedance of 100kohm
- A balanced voltage mode input with an impedance of 100kohms + 100kohms
- A current-mode input with a 50ohm input impedance to minimize cable reflections (to be fed from an infinite impedance current source)
- A minimal path voltage mode with an input impedance of 660ohms. The voltage gain of the balanced and unbalanced inputs is 60V/V and 30V/V for the minimal path mode. The gain of current mode is 9V/mA.

NOISE

The equivalent input noise at the input is 5nV/sqrt(Hz) for the voltage modes and 6pA/sqrt(Hz) for the current mode.

SLEW RATE LIMIT

Maximum slew rate for both small signal and maximum output voltage is 100V/μs, (which is equivalent to a maximum output voltage at approximately 250kHz.)

POWER SUPPLY (Footnote 2)

- Active power factor correction minimizes mains current harmonic distortion
- Operates at all voltages from 85 through to 270V r.m.s. 45-65Hz, without any internal or external switches
- Less than 100 parts per million mains hum and ripple on the amplifier power rails
- Conforms with PFC and EU emission standards set for 2002

OVERLOAD (Footnote 3)

Recovery from hard overload at 20kHz into 4ohms: 1μs.

PROTECTION

The amplifier protection:

- Is short-circuit proof
- Has over current limiting
- Has gradual power limiting if amplifier becomes too hot
- Will cut out if a continuous D.C. offset appears on output
- Will cut out if output current exceeds 12A average continuously over a period of a few minutes
- Is protected against most input overloads

The power supply protection:

- Will cut out if most common faults are detected in the power supply (e.g. over-voltage, master clock at incorrect frequency, excessive temperatures etc)
- Is protected against most mains transients

COMPONENTS (Footnote 4)

All semiconductors are at least industrial grade in both the power supply and amplifier, for reliability All electrolytics are rated to 105°C in both the amplifier and power supply

- Only highly linear resistors and MKP10/FKP1 capacitors are employed in the critical audio path
- 6-layer PCBs are used in the power amplifier to minimize stray magnetic fields and to accurately define voltages

- 4-layer PCBs are used in the power supply to minimize E.M.I. and voltage transients, which improves reliability and power efficiency

COMPARTMENTS

There are 4 heavily shielded compartments:

- A power supply unit
- An input amplifier section
- A power amplifier compartment
- An output filter compartment

FILTERING

Series and common mode EMI filtering is present

- on the mains input
- between the amplifier and power supply

High frequency filtering is present at the inputs and output.

DIMENSIONS (per monoblock)

Weight: 120 lbs. or 55 Kg

Height: 31 inches or 79 cm

Width: 16 inches or 40 cm

Depth: 16 inches or 40 cm

Shipping weight,

(one pair including pallet):

352 lbs. or 160 kg

FOOTNOTES

- 1 THD specifications of our typical best competitors are 200,000 parts per billion.
- 2 Unique to the best of our knowledge.
- 3 Indicates no excessive negative feedback.
- 4 "Industrial" grade is a higher grade than the "commercial" grade used by most manufacturers.