



AMCRON

D-60

The AMCRON D-60 single or dual channel amplifier may be used for many different applications. It is ideal for driving efficient speaker systems, as an electrostatic headphone amplifier, or as amplification for the ambience channels in a four channel system. Solid state circuits provide instant start up with minimum thumps and no program delay. Front panel level controls and a stereo headphone jack are provided. A switch on the rear of the unit allows stereo or mono operation with no internal wiring changes.

The D-60 is fully protected against mismatched and shorted loads by a self-resetting limiter which senses overload. It then acts instantly to protect the amplifier, and reverts to normal operation as soon as the overload disappears.

The input stage is protected from excessive input signals by a series limiting resistor. The input voltage amplifiers in the D-60 are integrated circuits powered by two voltage-regulated supplies.

The D-60 output stages require no bias current adjustment since AMCRON'S patented output circuitry employing the AB + B configuration uses no quiescent bias current in the output transistors and is completely stable with changing temperature.

After assembly, each amplifier is thoroughly tested and must exceed our guaranteed specifications before it is shipped. A proof of performance sheet accompanies each unit showing actual specifications attained.



D-60 Specifications

STEREO

Output Power

32 watts per channel minimum RMS (both channels operating) into an 8 ohm load over a bandwidth of 20-20KHz at a rated RMS sum total harmonic distortion of 0.05% of the fundamental output voltage.

Frequency Response

± 0.1 db 20Hz-20KHz at 1 watt into 8 ohms;
± 1.2 dB 5Hz-100KHz at 1 watt into 8 ohms.

1KHz Power

36 watts RMS into 8 ohms, per channel, both channels operating, 0.1% total harmonic distortion.

Harmonic Distortion

Less than 0.001% from 20Hz-300Hz, and increasing linearly to 0.05% at 20KHz at 32 watts RMS per channel into 8 ohms.

I.M. Distortion (60Hz - 7KHz 4:1)

Less than 0.05% from 0.01 watts to 0.25 watts, and less than 0.01% from 0.25 watts to 32 watts into 8 ohms per channel.

Slewing Rate

6 volts per microsecond (slewing rate is the maximum value of the first derivative of the output signal, or the maximum slope of the output signal).

Damping Factor

Greater than 400, DC-400 Hz into 8 ohms.

Output Impedance

Less than 15 milliohms in series with less than 3 microhenries.

Load Impedance

Rated for 8 ohm usage; safely drives any load including completely reactive loads.

Voltage Gain

20.6 ± 2% or 26.3 ± 0.2 dB at maximum gain.

Input Sensitivity

0.78 volts ± 2% for 32 watts into 8 ohms.

Output Signal

Unbalanced, dual channel.

MONAURAL

Output Power

64 watts minimum RMS into a 16 ohm load over a bandwidth of 20-20KHz at a rated RMS sum total harmonic distortion of 0.05% of the fundamental output voltage.

Frequency Response

± 0.2 dB 20 Hz-20KHz, 1 watt, 16 ohms, ± 1dB 6Hz-50KHz, 1 watt, 16 ohms.

1KHz Power

72 watts RMS into 16 ohms, 0.1% total harmonic distortion.

Harmonic Distortion

Less than 0.001% from 20Hz-300Hz and increasing linearly to 0.05% at 20KHz at 64 watts into 16 ohms.

I.M. Distortion

Less than 0.05% from 0.01 watts to 0.25 watts, and less than 0.01% from 0.25 watts to 64 watts into 16 ohms.

Slewing Rate

12 volts per microsecond.

Damping Factor

Greater than 400, DC-400Hz into 16 ohms.

Output Impedance

Less than 30 milliohms in series with less than 6 microhenries.

Load Impedance

Rated for 16 ohm usage, safely drives any load including completely reactive loads.

Voltage Gain

41.2 ± 2% or 32.3 ± 0.2 dB at maximum gain.

Input Sensitivity

0.78 volts ± 2% for 64 watts into 16 ohms.

Output Signal

Balanced, single channel.

GENERAL

Hum and Noise

(20Hz-20KHz)
106 dB below rated output.

Phase Response

+10, -15° 20Hz-20KHz at 1 watt.

Input Impedance

25K ohms ± 30%

Amplifier Output Protection

Short, mismatch, and open circuit proof. V-I limiting is instantaneous with no annoying thumps, cutout, etc.

Overall Protection

AC line fused. Controlled slewing rate voltage amplifiers protect overall amplifier against RF burnouts. Input overload protection is furnished by internal resistance at inputs of amp.

DC Output Offset

(Shorted Input). 10 millivolts or less.

Turn-on

Instantaneous, with minimum thumps and no program delay.

Circuit

Wideband multiple feedback loop design utilizing one linear IC (dual op-amp). Total equivalent of 40 transistors, 18 signal diodes, 2 zeners, and 4 rectifier diodes.

Power Supply

Special design low profile transformer. Computer grade filter capacitors. Two regulated supplies for complete isolation and stability.

Power Requirements

Requires 50 Hz-400Hz AC on 120 volts or 240 volts ± 10% operation. Draws 15 watts or less on idle, 120 watts at 64 watts total output.

Heat Sinking

The entire amplifier is used as a heat sink. Front panel extrusion acts as a heat sink along with the chassis covers.

Chassis

Aluminum chassis construction for maximum heat conduction and minimum weight.

Controls

Two input level controls on front panel with power switch and pilot light. Stereo-mono switch on rear of unit.

Connectors

Input — 1/4 inch phone jack.
Output — Color-coded binding posts with stereo 1/4 inch earphone jack on front panel.
AC Line — Three-wire (grounded) male connector on 5 foot minimum cable.

Dimensions

17 inches long, 8 3/4 inches deep, and 1 1/2 inches high (8 inches deep from mounting surface). 19 inch standard rack mounting hardware included.

Weight

10 pounds net weight.

Finish

Satinized aluminum front panel with charcoal gray suede textured lower panel.

AMCron 

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