DCM500

500W AC/DC Power Amplifier

Description

The DCM500 is a high performance 500 watt power amplifier designed to meet the needs of the most demanding sound reinforcement installations and applications. The amplifier is designed to operate from both AC mains power as well as 24 volts DC.

Inputs and Outputs

The DCM500 features a transformer balanced line level XLR input with a parallel output to feed additional power amplifiers. The DCM500 provides 100 volt, 70 volt and 4 ohm speakers outputs via a rear panel barrier strip.

Controls and Metering

The front panel consists of a mains power switch and a recessed, screwdriver adjustable input attenuation control. The front panel of the DCM500 includes a back-lit LED display indicating power, high temperature, LED VU meter and mains fail indication. The mains fail indicator will only operate in the event of a mains power failure and when the amplifier is connected to a 24V DC power supply.

Protection

The DCM500 features a slow start function as well as overload and overdrive protection. Should the amplifier be overdriven, a current limiter will protect the unit, and in a worst case scenario the amplifier will shut down until the problem is resolved. Once the problem is fixed (shorted speaker line, or overdriven input), the amplifier will automatically reset and continue operation. The amplifier also features a built-in compressor/limiter designed to smooth out any peaks in input signal. The DCM500 features generous heatsinking and fan cooling. The fan will only switch on if the operating temperature exceeds a factory preset level.

Australian Monitor Installation Series amplifiers feature a protection network that provides greater stability and performance. Our amplifiers are recognised worldwide for their reliability and this is due to the extensive levels of current limiting which protect the amplifiers from both overload and overdrive conditions.

Other Features

The DCM500 can operate from both AC and 24V DC and includes a built-in trickle charge circuit.

Power Output	500 Watts RMS into 100 & 70 Volt line or 4 Ohms
Maximum Load	20 Ohms @ 100V
Frequency Response	50Hz - 15kHz (± 3dB) into 100V
Total Harmonic Distortion	Less than 0.5% @ 1kHz; Distortion at Max Power: 0.7%
Signal To Noise Ratio	-82dB
Input Sensitivity	Max 300mV (set @ 1V)
Input Impedance	10K Ohms
Input Connection	Transformer Balanced input with male and female XLR input/output sockets
Outputs	100 & 70 Volts or 4 Ohm speaker outputs via a rear panel barrier strip. Line out to feed additional power amplifiers available from 1 of the paralleled XLR inputs
Controls	Front Panel Power Switch, Recessed front panel input attenuator
Metering/Indicators	Amplifier Status Display Window including: Power On LED; 10 segment LED output meter; Mains fail LED; High temp trip LED
Power Sources	AC: 240V - 50Hz or 110V - 60Hz 3 pin IEC connector; DC: 24V with built in trickle charge circuit: 300ma maximum trickle charge 30 Amp maximum current draw on DC 300ma standby (idle) current draw on DC
Power Consumption	800 Watts (maximum)
Protection	Internal Cooling Fan with temperature sensor
Compressor/Limiter	Current Limiter with auto protect and auto reset
Dimensions/Weight	88mm H x 483mm W x 410mm D (Chassis dimensions only). 18 kg

ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The power amplifier shall be of high quality, suitable for the most demanding PA installations and applications. The unit shall have a frequency response of no less than 50Hz - 15kHz (±3dB). Distortion at 1kHz shall not exceed 0.5%. The Signal to Noise ratio shall be -82dB or greater. The amplifier shall have two transformer balanced XLR inputs, one of which can be used to feed additional power amplifiers. The amplifier shall be capable of delivering 500 watts RMS into 100 & 70 volt or 4 ohm loads. Speaker connection shall be via a rear panel barrier strip.

The unit shall operate from both AC mains power or from a 24V DC battery supply. The amplifier shall include a built-in trickle charge circuit. The amplifier shall feature overload and overdrive protection and shall also include cooling fans, which should only be active if the operating temperature exceeds a factory preset level.

The unit shall be packaged in a rugged 2 RU metal chassis suitable for desk or rack mounting.

The power amplifier shall be an Australian Monitor Installation Series model DCM500.

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