

MA200Q

High performance 4 channel power amplifier

features

- ▶ Superior sonic performance
- ▶ Increased output current capacity
- ▶ Versatile input connections
- ▶ Removable dust filters
- ▶ Advanced protection circuits

applications

- ▶ Live sound reinforcement
- ▶ Fixed installations



The MA200Q is one of a versatile range of professional power amplifiers designed to meet the increasing demands of both the rental and installation markets whilst remaining cost efficient.

By harnessing a conventional toroidal transformer power supply with the latest semiconductor technology and a proprietary copper cooling system the MA200Q amplifier offers outstanding sonic performance, power and reliability in a shallow (359mm) 2U package.



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NEW CHASSIS

Hum fields created from conventional iron transformers, both toroidal and C-core, have always caused problems within amplifier racks, very often interfering with more sensitive equipment located in the vicinity. By incorporating different iron materials in a sandwich construction the magnetic hum field has been reduced to a minimum.

VERSATILE INPUT CONNECTION

The Neutrik Combo-jack offers both professional XLR and semi-pro TRS phono-jack inputs as standard.

DUST FILTER

The MA200Q amplifier employs front to back cooling. To avoid unnecessary dust particles being drawn into the body of the unit a removable dust filter has been fitted to the front panel.

LED INDICATORS

Status LED's indicate key amplifier functions. The protect LED will trigger if the amplifier channel has shut down due to a short circuit, over temperature or high frequency protection. The clip LED indicates severe clipping, whilst the signal present LED activates at -40dB below full level.

PROTECTION

Two levels of DC protection are provided. DC current limiters, supplemented with power rail fuses, and crowbar DC output load protection.

Thermal Protection: Preventing the amplifier operating at an unsafe temperature.

AC Protection: If the AC mains voltage is outside the operational window the amplifier will automatically shut down.

V H F Protection: If high level, non-musical signals are detected that are above the audible frequency band, the amplifier is shut down.

Clip Limiter: Prevents severely clipped waveforms reaching the loudspeaker, but maintains full peak power.

COOLING

The MA200Q amplifier runs very cool due to a patented heat exchanger. The output devices are mounted directly onto the copper heat exchanger avoiding thermal losses normally found when using pads. The heat exchanger is mounted horizontally in front of a pressure chamber. The air flow over the geometric fins is maintained by two proportional speed fans ensuring superior efficient cooling.

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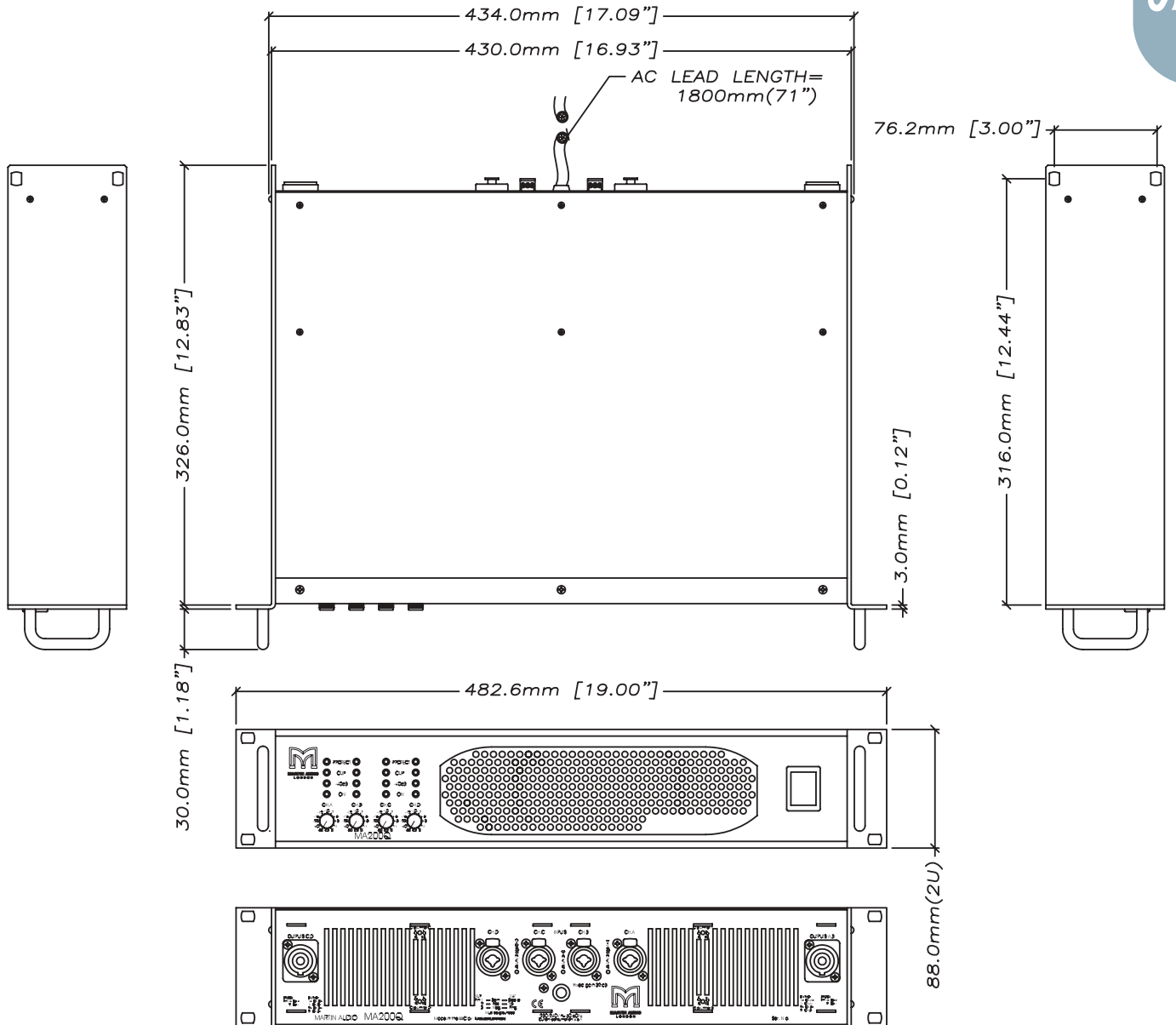


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overall dimensions

electronics



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technical specifications

MAX OUTPUT POWER	Four Channels
EIA AT 1 kHz AND 1% THD	
8 PER CHANNEL	130 W
4 PER CHANNEL	200 W
2 PER CHANNEL	285 W
8 BRIDGED	400 W
4 BRIDGED	570 W
MAX OUTPUT VOLTAGE	
8Ω LOAD	32 V _{rms}
PEAK VOLTAGE, NO LOAD	55 V
DISTORTION	
THD 20Hz – 20kHz AND 1 W TO FULL POWER	0.07%
THD AT 1kHz AND –1dB UNDER CLIP	0.01%
DIM AT –3dB UNDER CLIP	0.008%
HUM AND NOISE	< –105dB
CHANNEL SEPARATION @ 10kHz	70dB
OUTPUT IMPEDANCE	30 mΩ
SLEW RATE	25 V/μs
INPUTS	
GAIN (dB)	32
IMPEDANCE	20 kΩ (balanced) 10 kΩ single ended
COMMON MODE REJECTION	50dB
FRONT PANEL	
GAIN CONTROLS	31 position detent
INDICATORS: PROTECT	Yellow LED
INDICATORS: CLIP	Red LED
INDICATORS: SIGNAL PRESENT (–40dB)	Green LED
REAR PANEL	
INPUT CONNECTORS	Neutrik Combo
CLIP LIMITERS	On/off each channel
POWER	
OPERATION VOLTAGE	150-260 V
PEAK INRUSH CURRENT	70 A
FULL OUTPUT POWER	230 V
MIN START VOLTAGE	-
115V OPTION	Yes
CURRENT DRAW AT 4Ω/230V	
QUIESCENT POWER (NO LOAD)	0.57 A rms
1/8 OF FULL POWER (–9dB)	2.9 A
1/3 OF FULL POWER (–5dB)	4.5 A
AT FULL POWER (0dB) @ 1kHz 1%THD	7.5 A
DIMENSIONS	
WIDTH	483mm (19ins)
HEIGHT	88mm (3.5ins) 2U
DEPTH (incl. handles)	359mm (14.1ins)
WEIGHT	12.8kg (28lbs)

Trade Descriptions Act

Due to Martin Audio's policy of continuing improvement, we reserve the right to alter these specifications without prior notice. Martin Audio is committed to refining state of the art sound reinforcement, combining in-depth product and field applications research with advanced manufacturing techniques. Every Martin Audio product is built to the highest manufacturing standards and rigorously tested to ensure that it meets the performance criteria specified in the design.

architectural and engineering specifications

The amplifier shall have four channels each capable of producing an output of 200 watts continuous average power at 1kHz and 1% THD EIA into a 4 ohm load with both channels driven. Each input shall be electronically balanced and have a CMRR of 50dB at any frequency between 20Hz to 20kHz. Each channel shall exhibit distortion of no more than 0.01% THD at 1kHz and –1dB under clip. Hum and noise shall be at least 105dB below full rated output power and channel separation shall be greater than 70dB at 10kHz. The front panel shall have LED indicators for each channel that will activate to show channel on, signal present (–40dB), clip and protect mode; also, individual channel gain controls each with a 31-position detent. To allow for a variety of input connection possibilities, each channel shall have a Neutrik Combo-jack mounted on the rear panel. Power output for the four channels shall be via two rear panel mounted Speakon connectors.

Dimensions (W) 483mm x (H) 88mm (2U) x (D) 359mm (19ins x 3.5ins x 14.1ins).

Weight 12.8kg (28lbs).

The amplifier shall be the Martin Audio MA200Q.

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