High Performance Power Amplifiers



Designed for use in a variety of applications in the fixed installation market, where sonic quality and reliability are the highest priorities, the high performance T4-250 uses complimentary AB bipolar output stages, combined with the unique MC² current driven floating drive stage and conventional analogue level controls.

The sound quality is maintained over a very wide range of load and temperature conditions. Sophisticated "side-chain" limiters prevent distortion and speaker damage, but are out-of-circuit until the onset of clipping.

The control circuitry provides full protection against short circuits, DC and excessive temperature together with inrush current limiting and delayed "turn-on".

Main Specifications

Output Power (per channel): 8 ohms: 160W, 4 ohms: 300W, 2 ohms: 475W*

Measured using continuous music with Crest Factor of 4.8 (14dB)

Output Power (bridged): 8 ohms: 600W, 4 ohms: 950W*

Measured using continuous music with Crest Factor of 4.8 (14dB)

THD: (@1dB below maximum output power) @ 1kHz<0.008%, 20Hz to 20kHz<0.03% **Gain / Sensitivity:** Gain 32dB Sensitivity (for maximum power)+2.0dBu (1.0V)

Frequency Response: 20Hz to 20kHz (+0dB / -0.5dB)

Power Consumption: Nominal @ 240V into 4 ohms 1.5A, Nominal @ 120V into 4 ohms 3.0A

Dimensions: Amplifier (2U) (mm/in) 88/3.5(h) x 482/18.9(w) x 428/16.8(d)

Boxed (shipping size - UK) 230/9.0 x 580/22.8 x 560/22.0 (Single boxed)

Boxed (shipping size - all except UK) 250/2.8 x 610/24.0 x 600/23.6 (Double boxed)

Weight: Amplifier 14.9kg(32.8lbs), Boxed (shipping weight) 17.0kg(37.5lbs) *Channels C &D Only

Additional Specifications

Input Impedance: 20k ohms (Active balanced)

Input CMRR: > 60dB Damping Factor: > 400 (8 ohms / 1kHz)

SNR: Better than 104dB (unwtd, 22Hz-22kHz)

Signal Limiters: Operate at maximum power to prevent excessive clipping.

Protection: Output short circuit, DC output, over-temperature, mains in-rush control.

Output Power:

Continuous sine wave @ 1kHz (per channel): 150W (8R), 260W (4R), 400W (2R*) Continuous music (with Crest Factor of 2.8 (9dB)): 160W (8R), 260W (4R), 460W (2R*) Continuous music (with Crest Factor of 4.8 (14dB)): 160W(8R), 300W (4R), 475W (2R*) Continuous music (with Crest Factor of 7.8 (18dB)): 175W(8R), 300W (4R),600W (2R*)

For details of Power measurement methods please refer to the Technical Support area of our website.



T4-250

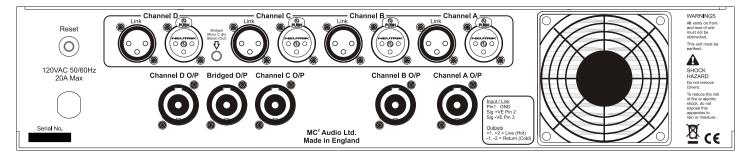
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Power Consumption & Thermal Emissions

Mains (V)	Load (R)	Current Draw (A) No Sig'l Light Average Heavy				The No Sig'l	Thermal Emissions (W) No Sig'l Light Average Heavy			
240	8	0.5	0.6	0.8	1.2	120	125	136	164	
240	4	0.5	0.7	1.0	1.7	120	131	150	192	
240	2*	0.5	0.9	1.3	2.6	120	142	168	247	
120	8	1.0	1.2	1.5	2.5	120	125	136	164	
120	4	1.0	1.4	2.0	3.4	120	131	150	192	
120	2*	1.0	1.7	2.6	5.3	120	142	168	247	

No Sig'l = Quiescent, Light = Crest Factor of 7.8(18dB), Average = Crest Factor of 4.8(14dB), Heavy = Crest Factor of 2.8(9dB) For details of measurement methods please refer to the Technical Support area of our website.

*Channels C &D Only



Controls, Indicators & Connectors

Front Panel: 4 x Level controls, 1 x power switch, 1 x power on indicator (green),

4 x limiter active indicators (yellow), 4 x signal present indicators (blue),

1 x protection active (red), 1 x bridged mode active (green)

Rear Panel: 1 x Bridged mode selector switch.

5 x Neutrik Speakon output connectors

4 x Neutrik XLR 3-pin female connectors (audio input). (Pin 1 = Gnd, Pin 2 = hot, Pin 3 = cold)

4 x Neutrik XLR 3-pin male connectors (audio link output). (Pin 1 = Gnd, Pin 2 = hot, Pin 3 = cold)

1 x Captive mains cable

Architect's and Engineer's Specification

The power amplifier shall be a 4 channel class AB design with a minimum guaranteed power of 160W into 8R (20Hz to 20kHz). THD shall be better than 0.03% (20Hz to 20kHz) and the signal to noise ratio shall exceed 104dB (unwtd). Minimum load shall be XR, and XR in bridge mode. Input sensitivity shall be +2.04BM for full power output. Frequency response shall be 20Hz to 20kHz (±0.25dB).

The front panel shall have individual input level controls and a front panel non-isolating main power switch shall be fitted. The front panel shall have indication of signal present and limiter active for each channel, power, bridge mode and protect/fault.

The rear panel shall have outputs on Neutrik Speakon connectors, with one additional connector being wired to allow both channels to be accessed from a single plug (4 pole).

The audio inputs shall be on Neutrik 3 pole XLR female connectors, with link outputs on Neutrik 3 pole XLR male connectors. Mode switching between stereo and bridge/mono shall be on the rear panel. Optional 24dB/Oct. crossover cards shall be available for internal fitting. The amplifier shall be a 2U, 19" rackmount format with dimensions of 8.8cm X 48cm X 46cm and a weight of 13.9kg. AC mains supply shall be nominal 240V, 50/60Hz. The amplifier shall be designated the MC² T4-250.



T4-250