High Performance Power Amplifiers 100V / 70V Line Model



**T**Series

Designed for use in a variety of applications in the 70V/100V fixed installation market, where sonic quality and reliability are the highest priorities, the high performance T500-T & T1000-T use complimentary AB bipolar output stages, combined with the unique MC<sup>2</sup> 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

T500-T Output Power (per channel): 100V 280W, 70V 196W T1000-T Output Power (per channel): 100V 600W, 70V 420W Measured using continuous music with Crest Factor of 4.8 (14dB) Internal 70V / 100V non isolating output transformer feeds Nl4 speakon output. Output Power (bridged): Not Applicable THD: (@1dB below maximum output power) @ 1kHz<0.008%, 20Hz to 20kHz<0.03% Gain / Sensitivity: T500-T Gain 40dB Sensitivity (for maximum power)+2.0dBu (1.00V) T1000-T Gain 38dB Sensitivity (for maximum power)+3.5dBu (1.20V) Frequency Response: 80Hz to 20kHz (-3dB / -0.5dB) Power Consumption: T500-T Nominal @ 240V 0.5A, Nominal @ 120V 1.0A T1000-T Nominal @ 240V 1.1A, Nominal @ 120V 2.2A 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) 250/9.8 x 610/24.0 x 600/23.6 (Double boxed) Weight: T500-T Amplifier 13.27kg(29.26lbs), Boxed (shipping weight) 14.9kg(33.85lbs) T1000-T Amplifier 15.22kg(33.55lbs), Boxed (shipping weight) 16.85kg(37.14lbs)

### Additional Specifications

Input Impedance: 20k ohms (Active balanced) Input CMRR: > 60dB SNR: Better than 103dB (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. Internal High Pass Filter: 80Hz Butterworth 12dB / Octave Output Type : Class AB with Non Isolated Transformer Output.

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



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### T Series

## High Performnance Power amplifiers 100V / 70V Line Model

# T500-T

### Power Consumption & Thermal Emissions

Mains (V)	Load (R)	Current Draw (A)			Thermal Emissions (W)				
T500-T		No Sig'l	Light	Average	Heavy	No Sig'l	Light	Average	Heavy
240V	Hiz/100V/70V	0.4	0.5	0.8	1.3	96	104	118	151
120V	Hiz/100V/70V	0.4	0.6	1.0	2.0	96	111	134	192
T100-T									
240V	Hiz/100V/70V	0.8	1.1	1.5	2.7	96	104	118	151
120V	Hiz/100V/70V	0.8	1.3	2.1	4.0	96	111	134	192

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.



### Controls, Indicators & Connectors

Front Panel	<ul> <li>2 x Level controls, 1 x power switch, 1 x power on indicator (green),</li> <li>2 x limiter active indicators (yellow), 2 x signal present indicators (blue),</li> <li>1 x protection active (red), 1 x mono mode active (green)</li> </ul>	
Rear Panel:	<ul> <li>1 x mono / stereo mode selector switch.</li> <li>2 x Neutrik Speakon output connectors (4 pole) (See operators manual)</li> <li>2 x Neutrik XLR input connectors. (Pin 1 = Gnd, Pin 2 = hot, Pin 3 = cold)</li> <li>1 x Fused IEC 3-pin mains inlet</li> </ul>	

### T500-T Architect's and Engineer's Specification

The power amplifier shall be a 2 channel class AB design with a minimum guaranteed power of 280W into high impedance typical of 100V and (196WI)70V Line. THD shall be better than 0.03% [20Hz to 20KHz] and the signal to noise ratio shall exceed 103dB [unwtd]. Input sensitivity shall be +2.0dBu for full power output. Frequency response shall be 80Hz [-3dB] 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 individual input level controls and a front panel non-isolating main power, switch shall be fitted. The front panel shall have individual input level controls and a front panel non-isolating main power, bridge mode and protect/fault. The rear panel shall have outputs on Neutrik Speakon connectors, with one 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 connectors. Mode switching between stereo and mono shall be on the rear panel. Optional 24dB/Oct. crossover cards shall be available for internal fitting. The amplifier shall be 2U, 19° rackmount in format with dimensions of 8.8cm X 48cm X 43cm and a weight of 13.27kg. AC mains supply shall nominal 230V, 50/60Hz. The amplifier shall be designated the MC<sup>2</sup> T500-T.

### T1000-T Architect's and Engineer's Specification

The power amplifier shall be a 2 channel class AB design with a minimum guaranteed power of 600W into high impedance typical of 100V and (420WJ70 Line .THD shall be better than 0.03% (20Hz to 20kHz) and the signal to noise ratio shall exceed 104dB (unwtd). Input sensitivity shall be +3.5dBu for full power output. Frequency response shall be 80Hz (-3dB) 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 individual input level controls and a front panel non-isolating main power, switch shall be fitted. The front panel shall have individual input level controls and a front panel non-isolating main power, bridge mode and protect/fault. The rear panel shall have outputs on Neutrik Speakon connectors, with one 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 connectors. Mode switching between stereo and mono shall be on the rear panel. Optional 24dB/Oct. crossover cards shall be available for internal fitting. The amplifier shall be 2U, 19" rackmount in format with dimensions of 8.8cm X 48cm X 43cm and a weight of 15.22kg. AC mains supply shall be nominal 230V, 50/60Hz. The amplifier shall be designated the MC<sup>2</sup> T1000-T.



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