Lightweight Touring Power Amplifiers



Power Reduction Circuitry (PRC) controls on the rear panel, linked to the limiter thresholds, allow each channel to be independently set so that different speakers can be safely connected to each channel.

This lightweight, class AB amplifier has been designed to the same high standards of reliability and sound quality that our customers have come to expect of all MC² audio products

Proprietary current driven output stages give exceptional transient response and a resonant switchmode power supply with a large reservoir gives extremely high peak power without any "bass sag".

Optical limiters keep mains input and output currents within a safe operating area at all times, whilst maintaining transparent sonic performance.

Main Specifications

Output Power (per channel): 8 ohms: 450W, 4 ohms: 850W, 2 ohms: 1550W

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

Output Power (bridged): 8 ohms: 1700W, 4 ohms: 3100W

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 26/31/32dB Sensitivity (for maximum power)+11.0/6.0/5.0dBu (2.7/1.5/1.4V)

Frequency Response: 20Hz to 20kHz (±0.3dB)

Power Consumption: Nominal @ 240V into 4 ohms 2.1A, Nominal @ 120V into 4 ohms 4.2A

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) 250/2.8 x 610/24.0 x 600/23.6 (Double boxed)

Weight: Amplifier 9.8kg(21.6lbs) Boxed (shipping weight) 11.6kg(25.5lbs)

Additional Specifications

Input Impedance: 20k ohms (Active balanced)

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

SNR: Better than 105dB (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): 400W (8R), 775W (4R), 1350W (2R) Continuous music (with Crest Factor of 2.8 (9dB)): 425W (8R), 825W (4R), 1500W (2R) Continuous music (with Crest Factor of 4.8 (14dB)): 450W(8R), 850W(4R), 1550W (2R) Continuous music (with Crest Factor of 7.8 (18dB)): 475W(8R), 875W (4R), 1600W (2R)

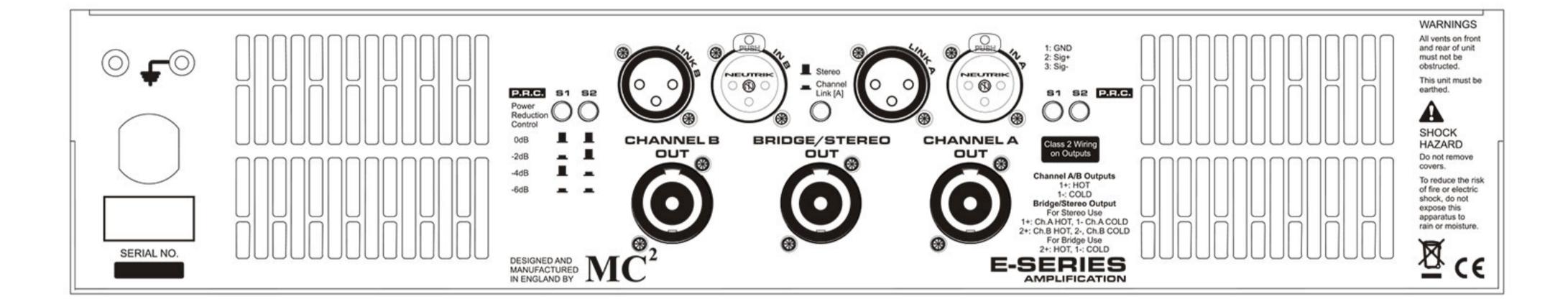
For details of Power measurement methods please refer to the Technical Support area of our website.

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Power Consumption & Thermal Emissions

lains (V)	Load (R)	Current Draw (A) No Sig'l Light Average Heavy				Thermal Emissions (W) No Sig'l Light Average Heavy			
240	8	0.6	0.9	1.4	2.6	144	162	190	261
240	4	0.6	1.1	2.1	4.4	144	176	230	371
240	2	0.6	1.6	3.2	6.9	144	203	301	515
120	8	1.2	1.8	2.7	5.1	144	162	190	261
120	4	1.2	2.3	4.1	8.8	144	176	230	371
120	2	1.2	3.2	6.5	13.7	144	203	301	515

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: 2 x Level controls, 1 x power switch, 1 x power on indicator (green),

2 x signal present indicators (blue), 2×-3 dB level indicators (amber) 2×1 limiter active indicators (yellow), 2×1 PRC active indicators (green),

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

Rear Panel: 1 x Channel Link switch

2 x 2 PRC level selector switches

3 x Neutrik Speakon output connectors (4 pole)
2 x Neutrik XLR female connectors (audio input)
2 x Neutrik XLR male connectors (audio link output)

Captive mains cable

Architect's and Engineer's Specification

The power amplifier shall be a 2 channel Class AB design* with a minimum guaranteed power of 450W into 8R (20Hz to 20kHz). THD shall be better than 0.03% (20Hz to 20kHz) and the signal to noise ratio shall exceed 103dB (wtd). The minimum load shall be 2R, and 4R in bridge mode. Input sensitivity shall be +5.0dBu for full power output. Frequency response shall be 20Hz to 20kHz (±0.25dB). The front panel shall have individual input level controls with a 5 point LED meter showing output level and onset of limiting and power reduction. A front panel non-isolating main power switch shall be fitted.

The rear panel shall have outputs on Neutrik Speakon connectors, with a third connector wired to carry both channels and for bridged mode (4 pole).

The audio inputs shall be on Neutrik 3 pole female XLR connectors, with Neutrik 3 pole male XLR connectors for link outputs. Individual switching of each channel's PRC (Power Reduction Circuit) will be available on a pair of switches giving 2/4/6dB of power reduction. Input channels shall be linkable using the rear panel link switch.

The amplifier shall be 2U, 19" rackmount in format with dimensions of 8.8cm X 48cm X 43cm and a weight of 9.8kg. AC mains supply shall be nominal 240V/120V, 50/60Hz.

The amplifier shall be designated the MC² E15.

*with "switching" PSU

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