MC² AUDIO

E Series
Lightweight Touring Power Amplifiers

E45



This lightweight, modified class H 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.

As with all E Series amplifiers, the E45 will deliver its rated power over the entire audio bandwidth, 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.

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.

Main Specifications

E45

Output Power (per channel): 8 ohms: 1250W, 4 ohms: 2500W, 2 ohms: 4200W
Measured using continuous music with Crest Factor of 4.8 (14dB)
Output Power (bridged): 8 ohms: 5000W, 4 ohms: 8400W
Measured using continuous music with Crest Factor of 4.8 (14dB)
THD: (@1dB below maximum output power) @ 1kHz<0.015%, 20Hz to 20kHz<0.05%
Gain / Sensitivity: Gain 26/32/36dB Sensitivity (for maximum power)+15.7/9.7/5.7dBu (4.7/2.4/1.5V)
Frequency Response: 20Hz to 20kHz (±0.3dB)
Power Consumption: Nominal @ 240V into 4 ohms 4.5A, Nominal @ 120V into 4 ohms 9.0A
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 11.4kg(25.1lbs), Boxed (shipping weight) 13.4kg(29.5lbs)

Additional Specifications

E45

Input Impedance: 20k ohms (Active balanced)
Input CMRR: > 60dB **Damping Factor:** > 400 (8 ohms / 1kHz)
SNR: Better than 106dB (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): 1100W (8R), 2050W (4R), 3300W (2R)
Continuous music (with Crest Factor of 2.8 (9dB)): 1200W (8R), 2400W (4R), 4100W (2R)
Continuous music (with Crest Factor of 4.8 (14dB)): 1250W(8R), 2500W(4R), 4200W (2R)
Continuous music (with Crest Factor of 7.8 (18dB)): 1350W(8R), 2700W (4R),4300W (2R)

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

MC² AUDIO

www.mc2-audio.co.uk
Tel. +44 (0)1404 44633 Fax. +44(0)1404 44660
MC² AUDIO | Units 6-8 Kingsgate | Heathpark Industrial Estate
Honiton | Devon | England | EX14 1YG

5 Year Warranty

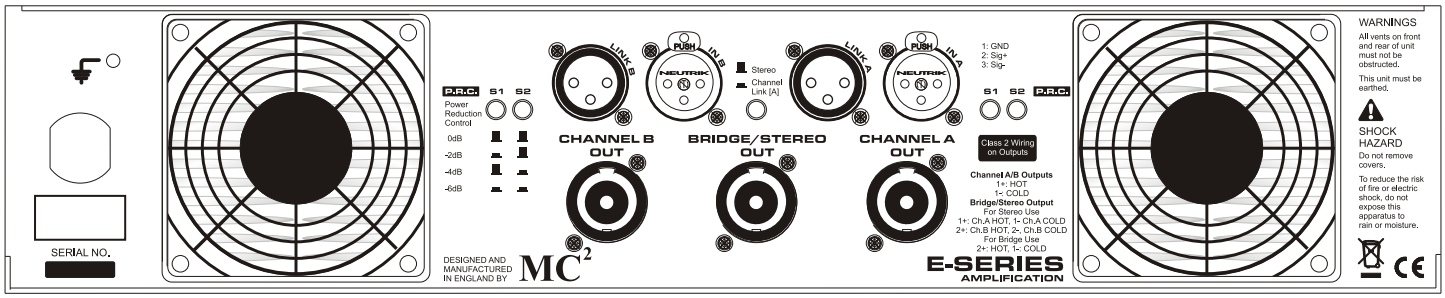
E Series
Lightweight Touring Power Amplifiers

E45

Power Consumption & Thermal Emissions

Mains (V)	Load (R)	Current Draw (A)				Thermal Emissions (W)			
		No Sig'l	Light	Average	Heavy	No Sig'l	Light	Average	Heavy
240	8	1.0	1.7	2.7	5.5	240	281	344	510
240	4	1.0	2.4	4.5	10.1	240	322	447	780
240	2	1.0	3.2	6.9	16.5	240	370	589	1163
120	8	2.0	3.4	5.5	11.1	240	281	344	510
120	4	2.0	4.8	9.0	20.2	240	322	447	780
120	2	2.0	6.4	13.7	33.1	240	370	589	1163

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 LED (green),
2 x 5 point LED level indicators, 2 x PRC Active LEDs (green)
1 x Protection Active (red)
1 x Channel Link LED (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 modified Class H design with a minimum guaranteed power of 1250W into 8R (20Hz to 20kHz). THD shall be better than 0.05% (20Hz to 20kHz) and the signal to noise ratio shall exceed 106dB (wtd). Minimum load shall be 2R, and 4R in bridge mode. Input sensitivity shall be +5.7dBu for full power output.
Frequency response shall be 20Hz to 20kHz (±0.3dB). 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 11.4kg. AC mains supply shall be nominal 240V/120V, 50/60Hz.
The amplifier shall be designated the MC² E45.

MC² AUDIO
www.mc2-audio.co.uk
Tel. +44 (0)1404 44633 Fax. +44(0)1404 44660
MC² AUDIO | Units 6-8 Kingsgate | Heathpark Industrial Estate
Honiton | Devon | England | EX14 1YG