

Traction Engine 4|2700-N

Power Amplifier



The 4|2700-N offers the assurance of our highest quality audio power amp technology with future proofing via the optional inclusion of simple to use digital audio networking.

A powerful and robust 4 channel power amplifier boasting high power output and exceptional sound quality. Useable as a stand alone unit, or as a secondary amp taking its input from the Aux outputs of a Traction Engine DSP amplifier. Pairs of output channels can be bridged to deliver even more power, for use with our high output subwoofer products

Running cool in even the most difficult conditions, the 4|2700-N can deliver 4 x 2700W into 4 ohms with all channels driven, and an substantial 2 x 7000W bridged (4R), with outstanding distortion and noise figures right up to maximum output. This power is maintained even with reduced mains voltages thanks to generous limiter headroom.

Parallel wiring of channels A and C to output sockets B and D respectively means less complicated setup and more options when designing systems.

Main Specifications

Output Power (per channel): <small>Measured using continuous music with Crest Factor of 48 (14dB)</small>	8 ohms: 1400W, 4 ohms: 2700W, 27 ohms: 3700W, 2 ohms: 3500W*
Output Power (bridged): <small>Measured using continuous music with Crest Factor of 48 (14dB)</small>	8 ohms : 5600W, 4 ohms: 7000W
THD: (0dB below maximum output power)	● 1kHz: <0.08% 20Hz to 20kHz: <0.1%
Gain / Sensitivity:	Gain: 32dB Sensitivity (for maximum power): +10.7dBu (2.7V)
Frequency Response:	20Hz to 20kHz (+0.5dB)
Power Consumption:	Nominal ● 240V into 4 ohms: 7.5A Nominal ● 120V into 4 ohms: 15.4A
Dimensions:	Amplifier (2U) (mm): 88(h) x 482(w) x 428(d) Boxed (shipping size - UK): 230 x 580 x 560 (Single boxed)
Weight:	Amplifier: 10.8kg Boxed (shipping weight): 12.3kg

Additional Specifications

Input Impedance:	20k ohms (Active balanced)
Input CMRR:	> 60dB
Input Sources:	4 x Analogue
Signal Limiters:	Operate at maximum power to prevent excessive clipping
Protection:	Output short circuit, DC: Over-temperature: Mains in-rush control, over voltage, over current
Output Power(per channel):	Continuous music (with Crest Factor of 2.8 (9dB)): 1360W (8R), 2620W (4R), 3600W (2.7R) Continuous music (with Crest Factor of 4.8 (14dB)): 1400W(8R), 2700W(4R), 3700W(2.7R) Continuous music (with Crest Factor of 7.8 (18dB)): 1440W(8R), 2780W (4R), 3880W (2.7R)

*27 ohm power quoted for highest single ended output and greatest efficiency (3 x 8 ohm parallel drivers). Amplifier is stable with 2 ohm loads but output will be reduced.

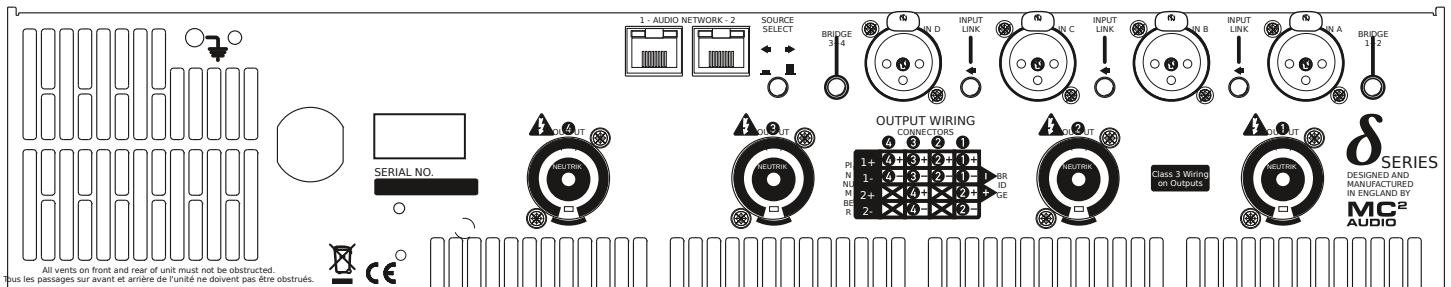
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Power Consumption & Thermal Emissions

Mains (V)	Load (R)	Current Draw (A)				Thermal Emissions (W)			
		No Sig1	Light	Average	Heavy	No Sig1	Light	Average	Heavy
240	8	21	32	51	96	504	533	582	701
240	4	21	41	75	157	504	557	647	863
240	27	21	46	89	191	504	570	682	953
120	8	47	69	106	196	560	589	638	757
120	4	47	87	155	319	560	613	703	919
120	27	47	97	182	387	560	626	738	1009

No Sig1 = 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:

- 1 x Power Switch, 1 x STBY LED (orange)
- 4 x 6 point LED level indicators, 4 x level controls
- 3 x Channel Audio link LEDs (yellow)
- 1 x protection LED (red), 2 x bridge LEDs (green)
- 1 x power LED, 1 x analogue LED, 1 x network audio LED (3 x yellow)

Rear Panel:

- 4 x Neutrik Speakon output connectors (4 pole)
- 4 x Neutrik XLR female connectors (audio input)
- 2 x Ethernet RJ45 (Audio Network)*
- 3 x Channel Link Switches
- 2 x Bridge Mode Switches
- 1 x Analogue/Network Audio Source Select Switch

Architect's and Engineer's Specification

The power amplifier shall be a 4 channel class D design with a minimum guaranteed power of 2700W into 4R (20Hz to 20kHz). THD shall be better than 0.1% (20Hz to 20kHz). The minimum load shall be 2R(27R recommended), and 4R in bridge mode. Input sensitivity shall be 10.7dBu for full power output. Frequency response shall be 20Hz to 20kHz (+0.5dB).

The front panel shall have individual input level controls each with a 6 point LED meter showing output level and onset of limiting. A front panel non-isolating main power switch shall be fitted. The rear panel shall have outputs on Neutrik Speakon connectors, with two being wired to allow channel pairs to be accessed from a single plug (4 pole).

The audio inputs shall be on Neutrik 3 pole XLR connectors. Mode switching between stereo/bridge shall be on the rear panel, per channel pair (1&2, 3&4). Inputs to channels shall be linkable via 3 channel link switches, with corresponding indication on the front panel.

The amplifier shall accept analogue or networked audio if fitted with the optional Dante network audio card with global source switching across all four channels on the rear panel and front panel indication of either analogue or digital source.

The amplifier shall be 2U, 19" rackmount in format with dimensions of 88cm X 48cm X 43cm and a weight of 10.8kg. AC mains supply shall be selectable (factory set only) between 120V(60Hz) and 240V(50Hz). The amplifier shall be designated the Traction Engine 4|2700-N.