

# Macro-Tech 5000i

## MACRO-TECH i SERIES

### Architectural & Engineering Specifications

#### Macro-Tech 5000i

The Crown® Macro-Tech® 5000i power amplifier shall be a solid-state two-channel model with a switch-mode universal power supply.

The outputs shall be usable as dual or bridged-mono modes of operation. The bridged-mono mode shall bridge the outputs to provide increased output voltage.

#### Front panel controls and indicators shall include the following:

Bridge Mode Indicator: Amber LED illuminates when the amplifier is set to Bridge-Mono mode.

Ready Indicator: Green LED, one per channel.

On (bright): Ready.

On (dim): Onset of compression.

Off: Thermal failure.

Signal Indicators: One green LED per channel.

Solid green: Input signal is above -40 dBu.

Bright green: Channel's output signal has reached the onset of audible clipping.

Power Indicator: Blue LED indicates amplifier has been turned on and AC power is available. The LED will flash when the AC line voltage is 10% above or below the nominal rated value.

Data Indicator: Yellow LED on front panel indicates network data activity. Data indicator flashes only when the amplifier is polled for data, or is polled to see whether it is online.

Power Switch: Push-on/push-off switch with built-in green AC mains present indicator.

Volume Control: Precision detented attenuator with 31 steps, press-and-hold mute function.

Volume Control LED Ring: A ring of green LEDs around each volume control show the position of the control. Entire ring flashes when channel is muted. Can be converted to be a level meter.

#### Rear panel controls, indicators and connectors shall include the following:

Power Cord Connector: Detachable 20 amp IEC inlet. Cord locks with supplied cord retention clip. Voltage range is indicated above IEC inlet.

Reset Switch/Circuit Breaker: If the current draw of the amplifier exceeds safe limits, this breaker automatically disconnects the power supply from the AC mains. The switch resets the circuit breaker.

Output Connectors: Two high-current, 50A Neutrik® Speakon® NL4MLP (mates with NL4FC or NL4), one per channel. Ch 1 Speakon® is wired with Ch 1 and Ch 2 outputs for use with single 4-conductor cable. Two pairs of high-current, 60A color-coded 5-way binding posts (for banana plugs, spade lugs or bare wire).

Analog Input Connectors: A 3-pin female XLR connector for each channel.

Analog Loop Thru Connectors: Two male XLR passive analog loop through.

Mode Switch/Indicator: Sets amplifier to Stereo, Bridge, or Input Y mode. OFF=Stereo, YEL=Bridge, GRN=Y.

Network Connector: This Neutrik® Ethercon connector accepts an RJ-45 connector for HiQnet™ networking. Next to the connector is a yellow LINK ACT indicator that shows network activity, and a green 100Mb indicator that shows a 100Mb network connection.

Data Indicator: Yellow LED on back panel indicates network data activity. Data indicator flashes only when the amplifier is polled for data, or is polled to see whether it is online.

Preset Indicator: Green/yellow LED flashes to signal the number of the current preset. LED is green if current preset is active, or is yellow if current preset is modified.

Input Sensitivity Switch: Three-position switch providing 1.4V, 32 dB, and 26 dB settings for both channels.

#### The amplifier shall have the following specifications:

Guaranteed minimum power in watts at 20 Hz-20 kHz with 0.35% THD: 2,565W (20 mS burst, 2-ohm dual per ch.), 1,800W (20 Hz-20 kHz, 2-ohm dual per ch.), 1,800W (1 kHz, 2-ohm dual per ch.), 2,000W (4-ohm dual per ch.), 1,250W (8-ohm dual per ch.), 3,600W (4-ohm bridge), and 4,000W (8-ohm bridge).

Frequency Response (at 1 watt, 20 Hz - 20 kHz into 8 ohms):  $\pm 0.25$  dB.

Signal to Noise Ratio (below rated full-bandwidth power, A-weighted):  $> 110$  dB.

Total Harmonic Distortion (THD) (at 2 watts into 8 ohms):  $< 0.1\%$ .

Total Harmonic Distortion (THD) Plus Noise (at full rated power):  $< 0.35\%$ , 20 Hz to 20 kHz.

Intermodulation Distortion (IMD) (60 Hz and 7 kHz at 4:1, from full rated output to -30 dB):  $< 0.35\%$ .

Damping Factor (20 Hz to 100 Hz at 8 ohms):  $> 5000$ .

Crosstalk (below rated power, 20 Hz to 1 kHz):  $> 80$  dB.

Common Mode Rejection (CMR) (20 Hz to 1 kHz): 55 dB, typically  $> 70$  dB.

DC Output Offset (shorted input):  $< \pm 3$  mV.

Input Impedance (nominal): 10 kilohms balanced, 5 kilohms unbalanced.

Maximum Input Level: +20 dBu typical.

Network: Onboard HiQnet, compatible with standard 100 Mb Ethernet hardware.

Load Impedance: (Note: Safe with all types of loads)

Stereo: 1/2/4/8/16 ohms.

Bridge Mono: 2/4/8 ohms.

Input Sensitivity (referenced to 8 ohm rated output): 1.4V, 32 dB gain, and 26 dB gain.

Voltage Gain (referenced to 8 ohm rated output): 37.1 dB to 22.2 dB

Required AC Mains: Universal AC input, 100-240VAC, 50/60 Hz ( $\pm 10\%$ ). Maximum AC mains voltage 264VAC.

AC Line Connector: Five cordsets supplied with amplifier (USA, UK, European, Australia, India).

Amplifier shall be protected against reactive loads, faults and shorts. If one channel experiences a catastrophic failure, the entire amplifier will shut down.

The front panel shall be cast aluminum, with integrated handles. Cooling shall be dual-zone, microprocessor controlled, continuously variable speed fans, front-to-back airflow.

Dimensions shall be EIA Standard 19-in. rack mount width (EIA RS-310-B), 3.5 in. (8.9 cm) high and 16.2 in. (41.1 cm) deep.

Net weight shall be 28 lb (12.7 kg). Shipping weight shall be 36 lb (16.3 kg).

The amplifier shall be designated the Crown Macro-Tech 5000i.



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