



- ✓ Touring
- ✓ Installation

4CH



- ▶ Small to medium-scale systems, portable and installed
- ▶ Stage monitoring
- ▶ Hotels, restaurant and bars
- ▶ Amusement parks, themed entertainment
- ▶ Houses of worship, auditoriums
- ▶ Educational facilities
- ▶ Live and dance clubs
- ▶ Mobile DJ's

4-channel mode				mono-bridged mode
4 Ω / Ch	8 Ω / Ch	70 V ¹⁾	100 V ²⁾	8 Ω / Ch pair
1,250 W	750 W	1,000W	1,250 W	2,500 W

EIAJ Test Standard, 1 kHz, 1% THD

Equally versatile in both portable and installed system configurations, and with its 4 channels delivering up to 5,000 W all neatly packed in one single rack unit weighing just over 7 kg / 16 lb, the **M50Q** is a flexible, cost-effective solution for small to medium sound systems.

Benefitting from core technologies of Powersoft's flagship K Series, the **M50Q** sets a class standard in efficiency, leading to low power consumption, and consequently to substantial money savings on electricity, all in an eco-friendly way.

Minimum heat dissipation makes the **M50Q** suitable for hot or otherwise challenging environments.

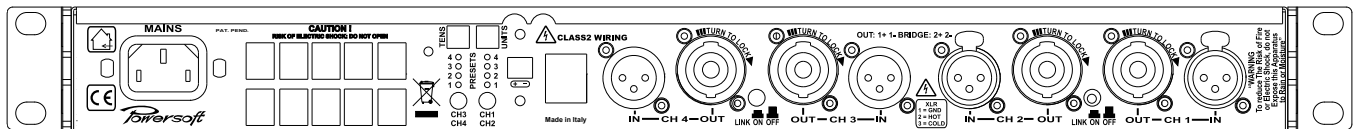
Added the legendary sound quality thanks to Powersoft's unique, patented Class D output stage design, the **M50Q** represents a fantastic value, practically as well as commercially.

The **M50Q** comes with 4 years warranty and, like all Powersoft products, is entirely designed and made in Italy.

- ✓ **Legendary Powersoft efficiency:**
 - ▶ Compact and space saving: 4 channels in 1 RU at 358 mm / 14.1" depth
 - ▶ Green Audio Power®: minimal "carbon footprint" and operational cost of electricity
 - ▶ More watts, less weight: up to 5,000 W in 7.3 kg / 16 lb
- ✓ **Unique Powersoft technology for efficient, reliable performance:**
 - ▶ Switch mode power supply, internally switchable 230/115 V nominal
 - ▶ Fixed frequency switch mode amplifier output stages
 - ▶ Patented amplifier output filters with ripple cancellation network
- ✓ **Driving distributed line systems:**
 - ▶ Able to drive 100 V distributed lines directly without the need for transformers¹⁾
- ✓ **Optimized for 4 Ω loads, thus ideally matching real-world scenarios in targeted applications**
- ✓ **Fully protected circuit design:**
 - ▶ AC protection: shuts down power supply when AC mains voltage is outside operating range
 - ▶ Clip limiter: prevents severely clipped waveforms from reaching loudspeakers, while still maintaining full peak power output
 - ▶ DC protection: protects against infrasonic signal at the outputs
 - ▶ VHF protections: protects the loudspeakers against destructive non-audible, non-musical high frequency signals
 - ▶ Short circuit protection: protects the amplifier from short circuit or similar events on the outputs; with automatic protection reset
 - ▶ Thermal protection: mutes outputs once output devices reach 75 °C / 167 °F; automatic unmute once temperature is down to 65 °C / 149 °F
- ✓ Temperature controlled continuous variable speed fan, front to rear airflow
- ✓ Recessed stepped level attenuators
- ✓ Full four years warranty
- ✓ Also available as M50Q HDSP+ETH with integrated DSP and Ethernet comm port

1) External high-pass filter and output voltage limiter required.

2) External high-pass filter required.



Specifications

General					
Number of channels	4				
Output power	4-channel mode				mono-bridged mode
EIAJ Test Standard, 1 kHz, 1% THD	4 Ω / Ch	8 Ω / Ch	70 V ¹⁾	100 V ²⁾	8 Ω / Ch pair
	1,250 W	750 W	1,000 W	1,250 W	2,500 W
Max output voltage / current	135 V _{peak} / 65 A _{peak}				
AC Mains Power					
Power supply	Universal, regulated switch mode				
Operating voltage / Inrush current	115 V / 230 V (factory selection) ± 15%, 50 Hz - 60 Hz / < 34 A _{RMS}				
Consumption / current draw	@ 230 V		@ 115 V		
Idle	64 W	0.51 A	64 W	0.6 A	
1/8 of max output power @ 4 Ω	905 W	5.8 A	905 W	11.6 A	
1/4 of max output power @ 4 Ω	1,772 W	11.1 A	1,772 W	22.2 A	
Thermal					
Environmental operating temperature	0° - 45° C / 32° - 113° F				
Thermal dissipation	Fan, continuously variable speed, temperature controlled, front to rear airflow				
Idle	218 BTU/h				55 kcal/h
1/8 of max output power @ 4 Ω	955 BTU/h				241 kcal/h
1/4 of max output power @ 4 Ω	1,781 BTU/h				449 kcal/h
Audio					
Gain	32 dB, 30 dB, 28 dB, 26 dB, 24 dB, 22 dB, 20 dB, 18 dB, 14 dB, 4 dB, -∞, user selectable				
Frequency response	10 Hz - 30 kHz (1 W @ 8 Ω, ± 3 dB)				
S/N ratio (amplifier section)	>110 dBA (20 Hz - 20 kHz, A weighted)				
Crosstalk separation	>70 dB @ 1 kHz				
Input sensitivity @ 8 Ω	1.94 V / 7.97 dBu				
Max input level	6 V / 17.8 dBu				
Input impedance	10 k Ω				
THD+N / SMPTE IMD	< 0.05% @ 1/2 of full power				
DIM100 IMD	typ. < 0.005% (< 0.02% @ > 0.1 W)				
Slew rate	40 V/μs @ 8 Ω, input filter bypassed				
Damping factor @ 8 Ω	>5000 @ 100 Hz				
DSP (optional)					
A/D converter	CS5381, 2 channels, 24 bit / 48 kHz, 120 dB SNR				
D/A converter	CS4398, 2 channels, 24 bit / 48 kHz, 120 dB SNR				
Frequency response @ -3 dB	7 Hz - 22 kHz				
THD	< 0.01% (20 Hz - 20 kHz)				
Presets	Bank of 4 presets, management and upload via Armonia Pro Audio Suite™				
Delay for time alignment	10 ms per output				
Crossover filters	Butterworth, Linkwitz-Riley, Bessel, 6 dB/oct to 48 dB/oct				
Output equalizer	up to 12 biquad fully parametric per channel: peaking, hi/lo shelving, hi/lo pass, band pass, band stop, all pass.				
Input equalizer	up to 5 biquad filters (PEQ, shelving, band pass, band stop, all pass)				
Limiters	Peak limiter, RMS limiter, frequency dependent RMS limiter				
Damping control	< 120 Hz, range ± 2 Ω				
System Delay	up to 170 ms for 2 IN/2 OUT or 340 ms for 1 IN/2 OUT				
Front Panel					
Indicators	4 LEDs per channel: 3 x green, 1 x red 2 status LEDs: 1 x green, 1 x yellow				
Controls	1 stepped level attenuator pot per channel; mains switch				
Maintenance	Dust filter foam behind front panel				
Rear Panel					
Audio signal input connectors	4 x balanced Neutrik® XLR female				
Loudspeaker output connectors	4 x Neutrik® Speakon NL4MD				
Network data port RS485	1 x RJ45 with activity LED with 2 rotary address switches				
DSP preset selection	2 x Pushbutton (stepping through bank of 4 presets) 2 x 4 LED preset indicators				
Aux voltage	1 x 2-pin Phoenix type MC 1.5/2-ST-3.81				
AC mains	IEC C13 16 A connector; AC mains cord with 3-pin plug 15 A for US, IEC Schuko 16 A for every other nation				
Controls	2 x link switch, linking analog inputs 1 & 2 and 3 & 4				
Construction					
Dimensions	W 483 mm / 19"; H 44.5 mm / 1.75"; D 358 mm / 14.1"				
Chassis	1 mm (0.04") steel chassis and steel removable dust cover, 3 mm (0.12") steel front panel, screw hole protection, steel side reinforcement & rear support				
Weight	7.3 kg / 16 lb				

1) External high-pass filter and output voltage limiter required.
2) External high-pass filter required.

Data is subject to change without notice.
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