



- ✓ 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	8 Ω / Ch pair
700 W	360 W	1,400 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 2,800 W all neatly packed in one single rack unit weighing just over 7 kg / 16 lb, the **M28Q** is a flexible, cost-effective solution for small to medium sound systems.

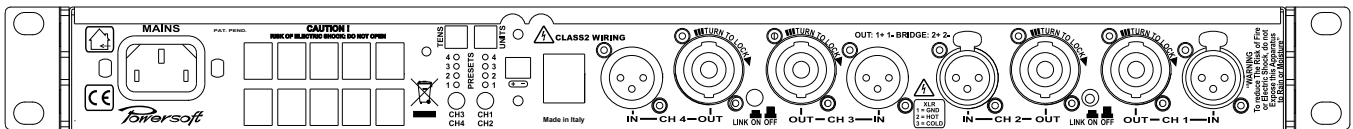
Benefitting from core technologies of Powersoft's flagship K Series, the **M Series** sets a class standard in efficiency, leading to low power consumption, and consequently to substantial money savings on electricity, all in an eco-friendly way.

Minimum heat dissipation makes the **M28Q** suitable for hot or otherwise challenging environments.

Added the legendary sound quality thanks to Powersoft's unique, patented Class D output stage design, the **M28Q** represents a fantastic value, practically as well as commercially.

The **M28Q** 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
  - ▶ Plenty of power, less weight: up to 2,800 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
- ✓ 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 M28Q HDSP+ETH with integrated DSP and Ethernet comm port



### Specifications

<b>General</b>					
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	8 Ω / Ch pair	
		700 W	360 W	1,400 W	
Max output voltage / current		85 V <sub>peak</sub> / 60 A <sub>peak</sub>			
<b>AC Mains Power</b>					
Power supply		Universal, regulated switch mode			
Operating voltage /Inrush current		115 V / 230 V (factory selection) ± 15%, 50 Hz - 60 Hz / < 26 A <sub>RMS</sub>			
Consumption / current draw		@ 230 V		@ 115 V	
Idle		62 W	0.51 A	64 W	0.6 A
1/8 of max output power @ 4 Ω		580 W	3.74 A	580 W	7.48 A
1/4 of max output power @ 4 Ω		1,066 W	6.52 A	1,066 W	13.04 A
<b>Thermal</b>					
Environmental operating temperature		0° - 45° C / 32° - 113° F			
Thermal dissipation		Fan, continuously variable speed, temperature controlled, front to rear airflow			
Idle		212 BTU/h		53 kcal/h	
1/8 of max output power @ 4 Ω		785 BTU/h		198 kcal/h	
1/4 of max output power @ 4 Ω		1,249 BTU/h		315 kcal/h	
<b>Audio</b>					
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)		>111 dBA (20 Hz - 20 kHz, A weighted)			
Crosstalk separation		>70 dB @ 1 kHz			
Input sensitivity @ 8 Ω		1.34 V / 4.76 dBu			
Max input level		6 V / 17.8 dBu			
Input impedance		10 kΩ			
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			
<b>DSP (optional)</b>					
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			
<b>Front Panel</b>					
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			
<b>Rear Panel</b>					
Audio signal input connectors		4 x balanced Neutrik® XLR female			
Loudspeaker output connectors		4 x Neutrik® Speakon NL4MD			
Network data port Ethernet		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			
<b>Construction</b>					
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			

Data is subject to change without notice.  
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