

# Q4002 / Q4002R

Powersoft

4-Channel Power Amplifier for High-Quality Portable and Permanently Installed Applications



- ✓ Touring
- ✓ Installation

4CH



- ▶ Small to medium-scale systems on tour or installed
- ▶ Full-range loudspeakers
- ▶ Delay lines
- ▶ Stage monitors
- ▶ Concert halls
- ▶ Houses of worship, auditoriums
- ▶ Sporting and educational facilities
- ▶ Live and dance clubs

The **Q4002** is a solid workhorse in any environment: on the road where things get tough or permanently installed, it provides its service dependably over many years.

Due to unique technologies inside such as the switch mode power supply with PFC and the distinct Class D output stage, the **Q4002** is highly efficient, resulting in lower power consumption. This means lower operational costs and decreased energy draw from the environment, in line with Green Audio Power® technology – typical Powersoft.

Performance is key, and the **Q Series** is at the forefront of uncolored sound reproduction – simply put, the **Q4002** sounds great.

For where required or demanded, the **Q4002R** version comes factory-equipped with a communication port, allowing remote control and monitoring on the same network as all other Powersoft amplifiers via the same Armonia Pro Audio Suite™ software.

Both the **Q4002** and the **Q4002R** come with 4 years warranty and, like all Powersoft products, are entirely designed and made in Italy.

4-channel mode			mono-bridged mode	
2 Ω	4 Ω	8 Ω	4 Ω	8 Ω
4 x 1,000 W	4 x 600 W	4 x 350 W	2 x 2,000 W	2 x 1,200 W

EIAJ Test Standard, 1 kHz, 1% THD

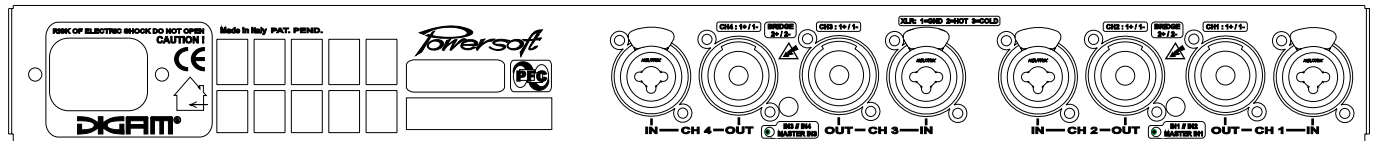
- ✓ **Legendary Powersoft efficiency:**
  - ▶ Unequaled Class D design with fixed switching frequency
  - ▶ Universal switch mode power supply with PFC (Power Factor Correction)
  - ▶ Space and weight saving: only one rack space (1 RU) and 9.5 kg / 20.9 lbs
  - ▶ Green Audio Power®: more amplifier output power from the AC mains power distribution due to >80% efficiency
- ✓ **Outstanding performance and sonic quality by design**, including amp clip limiters and patented ripple cancellation network
- ✓ **Practically versatile:**
  - ▶ Mono-bridgeable channel pairs
  - ▶ Linking analog signal inputs per switch
  - ▶ Built-in filter network, internally selectable per channel: high/low/band pass, 12 dB/oct, 65/100/130 Hz
  - ▶ Built-in gate, internally selectable per channel: off/-50 dBu
  - ▶ AC inrush current limiting; channel output voltage limiting
  - ▶ Recessed stepped level attenuators; front LED's for all relevant information
- ✓ **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
  - ▶ Long-term RMS protection: preventing loudspeaker damage from continuous non-audio signals by reducing output power
- ✓ Front-to-rear airflow cooling with variable-speed fan, temperature controlled
- ✓ Full four years warranty
- ✓ Options & accessories:
  - ▶ "R" model – including comm port for remote monitoring per PC:
    - On-board RS485 serial communication port on rear panel, for amplifier control and monitoring via Armonia Pro Audio Suite™ software
    - Digitally controlled amplifier providing feedback of status information
  - ▶ Armonia Pro Audio Suite, free at [www.armoniasuite.com](http://www.armoniasuite.com)
  - ▶ Power Control Hub, RS485 distribution and remote Power-on unit for up to eight amplifiers, 19"/1 RU

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## Specifications

<b>General</b>					
Number of channels		4			
Output power		4-channel mode		mono-bridged mode	
EIAJ Test Standard, 1 kHz, 1% THD	2 Ω	4 Ω	8 Ω	4 Ω	8 Ω
	4 x 1,000 W	4 x 600 W	4 x 350 W	2 x 2,000 W	2 x 1,200 W
Max output voltage	74 V <sub>peak</sub>				
<b>AC Mains Power</b>					
Power supply	Universal, regulated switch mode with PFC (Power Factor Correction)				
Operating voltage	100 V - 240 V ± 10%, 50 Hz - 60 Hz				
Power factor cos (φ)	>0.95 @ >200 W				
Consumption / current draw		@ 230 V	@ 115 V		
Idle	87 VA	0.38 A	0.76 A		
1/8 of max output power @ 4 Ω <sup>1)</sup>	375 VA	2.3 A	4.7 A		
1/4 of max output power @ 4 Ω <sup>1)</sup>	750 VA	4.0 A	7.9 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	112 kcal/hr	443 BTU/hr			
1/8 of max output power @ 4 Ω <sup>1)</sup>	177 kcal/hr	699 BTU/hr			
1/4 of max output power @ 4 Ω <sup>1)</sup>	241 kcal/hr	955 BTU/hr			
<b>Audio</b>					
Gain	32 dB				
Input sensitivity @ 8 Ω	1.32 V / 4.63 dBu				
Input filters	Internally selectable per channel: high/low/band pass, 12 dB/oct, off/65/100/130 Hz				
Gate	Internally selectable per channel: off/-50 dBu				
Input impedance	10 kΩ				
Frequency response	5 Hz - 30 kHz (+/-3 dB)				
THD+N / SMPTE IMD	typ. <0.1% (<0.5% @ >0.1 W)				
DIM100 IMD	typ. <0.01% (<0.02% @ >0.1 W)				
S/N ratio (amplifier section)	>105 dB(A)				
Crosstalk separation	>70 dB @ 1 kHz				
Slew rate	40 V/μs @ 8 Ω, input filter bypassed				
Damping factor	>600 @ 100 Hz				
<b>Front Panel</b>					
Indicators	3 LED's per channel for output level: 3 x green, 1 x yellow, 1 x red 2 status LED's per channel: green for signal present (-66 dBV), red for protection 2 status LED's: green for amplifier ready, yellow for thermal protection				
Controls	1 stepped level attenuator pot per channel Mains power on/off switch				
<b>Rear Panel</b>					
Audio signal input connectors	4 x Combo XLR female/1/4" jack, electronically balanced				
Loudspeaker output connectors	4 x Speakon® NL4MD				
Controls	2 x link switch, linking inputs 1 & 2 and 3 & 4				
AC mains	IEC C13 16 A (AC mains cord with 3-pin plug 15A for U.S., IEC 'Schuko' 16A for else)				
Remote control interface (optional "R" version)	RS485: 1 x RJ45 with 2 x rotary address switches				
<b>Construction</b>					
Dimensions	W 483 mm / 19", H 44.45 mm / 1.75" / 1 RU, D 455 mm / 17.9"				
Weight	9.5 kg / 20.9 lbs				
Side & rear reinforcement, front panel	5 mm steel				
Top & bottom lid, rear panel	1 mm steel				

1) With pink noise.

Data is subject to change without notice.  
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