

Q4004

High Efficiency 4 Channels Amplifier for Professional Applications



PRODUCT DESCRIPTION

The Powersoft Q4004 is a professional power amplifier designed to meet the most stringent requirements of professional users in concert touring, sound reinforcement and professional fixed installations.

Designed by Powersoft R&D team the Q4004 is exclusively built in Italy with internal components selected for premium quality and proven durability.

Each modular subassembly is pre-tested, and the assembled Q4004 receives a rigorous 48 hours burn-in before through final check-out on precision test equipment for total quality control.

The Q4004 incorporates the legendary patented Powersoft universal switching mode power supply with Power Factor Correction providing users with worldwide AC acceptance and low consumption.

Powersoft bridgeable switch mode fixed frequency class D patented outputs provide high quality sound, excellent damping factor and cooler circuits for stable performances over time and longer amplifier life.

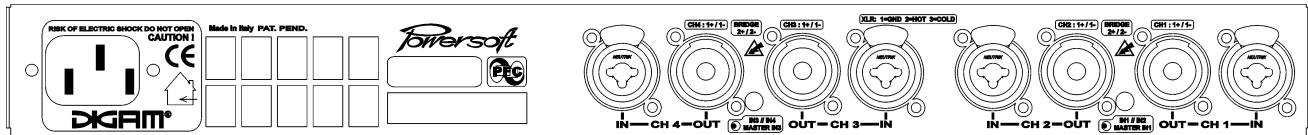
Optional sensing and communication board, on RS485 bus, provides full control and monitoring through proprietary software running on external PC, compatible with all other Powersoft Q, D, QTU and K Series amplifiers.

The Powersoft Q4004 is CE, UL and KETI approved.

Q4004 FEATURES

- Powersoft legendary universal switch mode power supply with Power Factor Correction
- Fixed frequency switch mode output
- Patented output filter with ripple cancellation network
- Comprehensive front panel indicators
- Neutrik® Combo (XLR+Jack) balanced inputs and Speakon® outputs connectors
- Selectable HP, LP, BP filters and gate
- Fully protected circuit design with:
 - AC protection: shut 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 non audible, strong, non musical very high frequency signals
 - Short circuit protection: protects the amplifier from short circuit or other stressful events for the output circuits
 - Thermal protection: when output rails reach 75°C (167°F) amplifier shut down outputs, they will unmute automatically when temperature will reach 65°C (149°F)
 - Long term limiter: protects the loudspeaker against steady long term rms (non audio) signals reducing maximum output
- Temperature controlled continuous variable speed fan, front to back airflow
- Recessed stepped attenuators
- Detachable AC mains cable with IEC 16A socket
- Modular construction
- Full three years warranty

POWER SPECIFICATIONS	8 Ω Stereo	4 Ω Stereo	2 Ω Stereo	8 Ω Bridged	4 Ω Bridged
EIAJ test, 1 kHz, 1% THD	4 x 600 W	4 x 1000 W	NA	2 x 2000 W	NA



GENERAL SPECIFICATIONS

Power requirements	AC 95V-265V, 50/60 Hz
Power factor cos (φ)	more than 0,95 from 200W to full power
Idle power	162 VA (0,7A @ 230V / 1,4A @ 115V)
Consumption	787 VA, 3,4A @ 230V, 6,8A @ 115V (1/8 max output power @ 4 Ohm) 1412 VA, 6,1A @ 230V, 12,2A @ 115V (1/4 max output power @ 4 Ohm)
Thermal emission (1/8 power @ 4 Ω)	869 BTU/Hour
Thermal emission (1/4 power @ 4 Ω)	1295 BTU/Hour
Cooling	Temperature controlled continuous variable speed fan, front to rear airflow
Environmental operating temperature	0°-45° C (32°-113° F)
Construction	1 mm (0,04 in) steel chassis, 5 mm (0,2 in) aluminum front panel, 3 mm (0,12 in) screw hole protection
External dimensions	1 standard rack unit, 455mm deep (17,9 in)
Net Weight-Shipping Weight	9,5 Kg (20,9 Lbs) – 11 Kg (24,25 Lbs)

FRONT & REAR PANEL SPECIFICATIONS

Input connectors	Balanced Neutrik® Combo with positive on XLR pin 2+ and on jack tip
Output connectors	Neutrik® Speakon® NL4MD (1+1- stereo, 2+2- bridge)
Network connector	RJ45 connector for optional RS485 network board with two recessed encoders for ID selection
Power switch	Front panel push on/push off mains power switch
LED indicators	Green for signal (-66dBV) and red for protect for each channel, green for amplifier ready and yellow for amplifier thermal protection for each channel couple (1,2 & 3,4), 5 led meter (3 green, 1 yellow, 1 red) per channel output meter
Attenuators	One per channel from $-\infty$ to 0 ($-\infty$, 4, 14, 18, 20, 22, 24, 26, 28, 30, 32 dB) stepped attenuators
Power connector	IEC 16A on rear panel
Power cable	IEC16A/Schuko for EU, IEC16A/American 15A 3 pin plug
Link switches	Rear panel link switch to connect input channel 1 to input channel 2 and input channel 3 to input channel 4

AUDIO SPECIFICATIONS

Input impedance	10 KΩ, balanced	Crosstalk	>70 dB @ 1 KHz
Input sensitivity @ 8Ω	1,73 V / 6,97 dBu	Slew Rate @ 8 Ω	40V/μs input filter bypassed
Input filters	Selectable HP, LP, BP12dB/oct, 65, 100, 130 Hz for each channel	Damping factor	>600 @ 100 Hz
Gate	Selectable @ -50dBu for each channel	THD+N	<0,5% from 0,1W to full power (typically <0,1%)
Gain	32dB / X40	SMPTE IMD	<0,5% from 0,1W to full power (typically <0,1%)
Frequency response	5Hz-30KHz (+/-3dB) for 1W @ 8Ω	DIM100 IMD	<0,02% from 0,1W to full power (typically <0,01%)
S/N ratio	> 105 dB/A (20-20K Hz A weighted)	Max Output Voltage	98 V

Powersoft reserves the right to make improvements in manufacturing or design which may affect product specifications.