

# D2004

High Efficiency 2 Channels Amplifier for Professional Applications



## PRODUCT DESCRIPTION

The Powersoft D2004 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 D2004 is exclusively built in Italy with internal components selected for premium quality and proven durability.

Each modular subassembly is pre-tested, and the assembled D2004 receives a rigorous 48 hours burn-in before through final check-out on precision test equipment for total quality control.

The D2004 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 D, Q, QTU and K Series amplifiers.

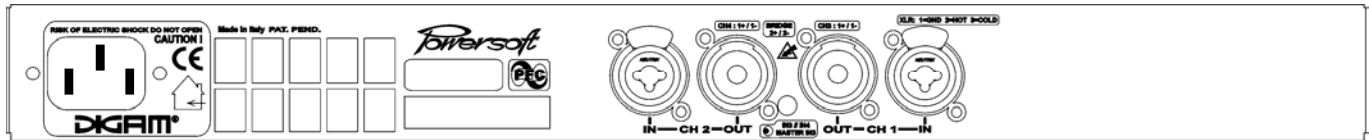
The Powersoft D2004 is CE and UL approved.

## D2004 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	2 x 600 W	2 x 1000 W	NA	1 x 2000 W	NA

# D2004 Datasheet



## GENERAL SPECIFICATIONS

<b>Power requirements</b>	AC 95V-265V, 50/60 Hz
<b>Power factor cos (φ)</b>	more than 0,95 from 200W to full power
<b>Idle power</b>	87 VA (0,38A @ 230V / 0,76A @ 115V)
<b>Consumption</b>	400 VA, 1,7A @ 230V, 3,4A @ 115V (1/8 max output power @ 4 Ohm) 712 VA, 3,1A @ 230V, 6,2A @ 115V (1/4 max output power @ 4 Ohm)
<b>Thermal emission (1/8 power @ 4 Ω)</b>	452 BTU/Hour
<b>Thermal emission (1/4 power @ 4 Ω)</b>	665 BTU/Hour
<b>Cooling</b>	Temperature controlled continuous variable speed fan, front to rear airflow
<b>Environmental operating temperature</b>	0°-45° C (32°-113° F)
<b>Construction</b>	1 mm (0,04 in) steel chassis, 5 mm (0,2 in) aluminum front panel, 3 mm (0,12 in) screw hole protection
<b>External dimensions</b>	1 standard rack unit, 455mm deep (17,9 in)
<b>Net Weight-Shipping Weight</b>	8,5 Kg (18,7 Lbs) – 10 Kg (22,04 Lbs)

## FRONT & REAR PANEL SPECIFICATIONS

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

## AUDIO SPECIFICATIONS

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

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



**Powersoft S.r.l.**  
Via Enrico Conti, 5 Scandicci (FI) – Italy  
TEL: +39 055 7350230  
FAX: +39 055 7356235  
sales-audio@powersoft.it