X4
4-Channel High Performance Amplifier Platform

Powersoft AUDIO

☑ Touring
☑ Installation

4 Io-Z hi-Z channels

🔳 Dante™   Armonía Pro Audio Suite™   THREE PHASE LOAD BALANCING   SRM   PFC   GREEN AUDIO POWER®

- ✓ Full-range loudspeakers
- ✓ Subwoofers
- ✓ High-power stage monitoring
- ✓ Medium to large-scale touring systems
- ✓ Arenas & concert halls
- ✓ Stadiums & open-air events
- ✓ Multi-zone venues & live clubs

Even more reliable, Powersoft X4 has been designed to be versatile and easy to use in any operation condition. Equally useful for most subwoofers as well as high-power fullrange systems, Powersoft X 4 suite any configuration and purpose.

Ultimately flexible and safe, Powersoft's legendary power supply is now suitable to Single Phase, Bi-Phase or Three Phase operation from 85 V_{AC} up to 440 V_{AC} without need of selection. True Three Phase load balancing is directly achievable by the unit without any complex load assignment in the power distribution system design.

Powersoft X4 provides four fully processable channels and selectable inputs from analog sources as well as digital AES3 and Dante™ by Audinate® streams. Channel mixing and routing can be easily performed thanks to the integrated revolutionary Zero Latency DSP.

Full Ethernet support make it easy to integrate Powersoft X4 into any existing infrastructure.

Completely integrated into Armonía Pro Audio Suite™, the new Powersoft X4 interface is also available for smartphone and tablet, providing a new experience in power management.

✓ Innovative power supply design

- ▶ Suitable for Single Phase, Bi-Phase or Three Phase operation from 85 V_{AC} up to 440 V_{AC}, the X4 power supply provides maximum flexibility and versatility in any power distribution design.
- ▶ Power Load Balancing with Power Factor Correction enhances efficiency in power distribution.
- ▶ Smart Rails Management increases efficiency by means of the dynamic rails modulation.
- ▶ The legendary Powersoft Green Audio Power® technologies improves efficiency and minimizes the 'carbon footprint' and the operational costs.
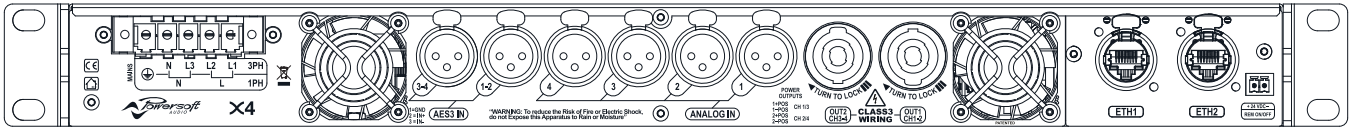
✓ New standard of quality and usability

- ▶ Extremely flexible routing provided by the internal 8x8 input/output matrix, allows the user to mix and route analog and digital I/O.
- ▶ Easy plug-and-play Dante™ networking allows easy routing of the signal from any node within the network to Powersoft X4.
- ▶ 4 input channels with physical analog and digital AES3 connectors and 2 redundant Dante™ connection provide maximum flexibility.
- ▶ Improved reliability thanks to the customizable input backup policy that allows to automatically switch input source in case of signal failure.
- ▶ Complete user interface integrated into Armonía Pro Audio Suite™.
- ▶ WiFi remote management through smartphone and tablet app.

✓ Highly integrated

- ▶ Top-grade DSP with high dynamic range and extensive feature set.
- ▶ Multi-stage signal processing: innovative solutions for modeling speakers behaviour and power handling.
- ▶ Input and output IIR, FIR, IIR+FIR equalizers and raised-cosine filters.
- ▶ Complete sets of limiters: peak, RMS voltage, RMS current, and TruePower™.
- ▶ Speaker wire compensation with Active DampingControl™ and LiveImpedance™ load monitoring.

✓ Even more reliabile

- ▶ Full protection circuitry: over/under AC voltage; troublesome signals (clipping, VHF, long-term RMS); DC; thermal; short circuit; mute at power on/off.

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PRELIMINARY

Specifications

Channel Handling	
Number of output channels	4 mono, bridgable per ch. pair
Number of input channels	
Analog	4 (4x XLR)
AES3	4 (2x XLR)
Dante™	16 (2x RJ45)

Audio	
Output Noise A-Weighted @ 8 Ω - Analog to Analog / Digital to Analog	< -70.0 dBV
Dynamic Range A-Weighted @ 8 Ω - Analog to Analog / Digital to Analog	114,3 dB
Damping Factor @ 8 Ω, 20Hz - 500Hz	> 5000
Slew Rate (input filter bypassed)	> 50 V/µs
Frequency Response (-3 dB , 1W @ 8 Ω)	5 Hz - 30 kHz
Crosstalk (1 kHz)	-70 dB
THD+N (from 0.1 W to Full Power)	< 0.5% (typical < 0.01%)
DIM (from 0.1 W to Full Power)	< 0.5% (typical < 0.01%)
Input Impedance	20 kΩ Balanced
Input Acceptance	18 dBu

DSP	
AD converters	24 Bit Tandem 96 kHz 129 dB Dynamic Range - 0.00056 % THD+N
DA converters	24 Bit Tandem 192 kHz 121 dB Dynamic Range - 0.00084 % THD+N
Sample rate converter	24 Bit 44.1 kHz to 192 kHz 140 dB Dynamic Range - 0.0001 % THD+N
Internal precision	40 bit floating point
Delay	4 s + 200 ms for time alignment
Equalizer	Raised-cosine, custom FIR, parametric IIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass
Crossover	linear phase (FIR), hybrid (FIR-IIR), Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR)
Limiters	TruePower™, RMS voltage, RMS current, Peak limiter
Damping control	Active DampingControl™
Input Impedance	20 kΩ Balanced
Input Acceptance	18 dBu

Construction	
Dimensions	483 mm x 44 mm x 495 mm (19.0 in x 1.7 in x 19.5 in)
Weight	15.5 kg (34.17 lb)

Power Supply	
Maximum Short Term Output Power	10000 W$_{avg}$
Maximum Long Term Output Power (thermal Limit)	2500 W$_{avg}$
Stored Energy Available for Output Stages	730 J

Output Stage	
Peak Unclipped Voltage @ no Load	175 V$_{peak}$
Peak Unclipped Voltage @ 8 Ω Load	156 V$_{peak}$
Peak Unclipped Voltage @ 4 Ω Load	150 V$_{peak}$
Peak Unclipped Voltage @ 2 Ω Load	140 V$_{peak}$
Maximum Unclipped Output Power @ 8 Ω	1600 W$_{avg}$
Maximum Unclipped Output Power @ 4 Ω	3000 W$_{avg}$
Maximum Unclipped Output Power @ 2 Ω	5200 W$_{avg}$
Maximum Unclipped Output Power @ 8 Ω Bridged	6000 W$_{avg}$
Maximum Unclipped Output Power @ 4 Ω Bridged	10400 W$_{avg}$
Peak Output Current before Shut Down	150 A$_{peak}$
Rms Output Current (T < 50 ms)	100 A$_{rms}$
Rms Output Current (T < 500 ms)	50 A$_{rms}$
Rms Output Current Continuos	25 A$_{rms}$

AC Mains Power	
Single Phase	
Nominal Voltage Operating Range	100 - 240 V$_{rms}$ 50/60Hz
Current Draw 1/8 Maximum Output Power @ 4 Ω	16 A$_{rms}$
Maximum Current Draw	60 A$_{rms}$
Power Factor 1/8 Maximum Output Power @ 4 Ω	> 0.9
Three Phase	
Nominal Voltage Operating Range	173 - 415 V$_{rms}$
Current Draw 1/8 Maximum Output Power @ 4 Ω	8 A$_{rms}$
Maximum Current Draw	50 A$_{rms}$
Power Factor 1/8 Maximum Output Power @ 4 Ω	> 0.9
Idle Consumption (all mains cases)	< 100 W