AMP-1200FHL-DSP

Digital Multi-Channel Amplifier (1200W x 4 Channels @ 70V) (1200W x 4 Channels @ 4/8Ω) with Built-in DSP

TOURING
INSTALLATION

POWER SHARING | 4 LO-Z HI-Z CHANNELS | 1U | ROUTING CHANNEL | DSP ON BOARD | SAFETY RELIABILITY | SRM | PFC | Armonía+Plus System Manager

The Quattrocanali DSP Series is specifically designed for installation applications. In just 1 RU, Quattrocanali offers smaller dimensions, lighter weight and the traditionally amazing sound quality and reliability of all Powersoft products.

Quattrocanali DSP amplifiers implement a high efficiency microprocessor controlled power supply with built in PFC (Power Factor Correction) that allows flawless worldwide operation with any AC mains voltage in the range 90-264 VAC tolerant to peak up to 400 VAC. The patented SRM (Smart Rails Management) technology allows to maximize the efficiency of the system and drastically reduce power consumption at any load and usage condition.

A secondary high efficient power supply is present to keep the system responsive at any operating condition, so that system check and monitoring can be performed even in stand-by and deep-sleep modes.

Quattrocanali DSP Series is designed to work with lo-Z (from 2 Ω) and with 70V/100V distributed lines: any mixed configuration of low and high impedance output loads can be realized, making the Quattrocanali Series suitable to applications in installed audio systems.

DSP versions of the Quattrocanali series extends system performance with on board high-end signal processing.

- Small to medium-scale venues
- Main systems, central or distributed, subwoofers, hi-Z/lo-Z
- Mission critical applications
- Shops, stores
- Theatres, restaurant, and bars
- Houses of worship
- Convention centres
- Business centres
- Cruise ships

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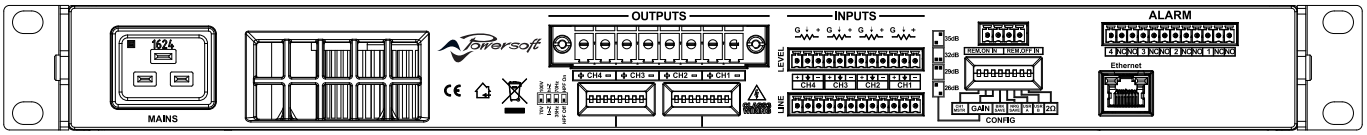

Specifications

Channel Handling		
Number of output channels	4 Hi-Z or Lo-Z (bridgeable per ch. pair)	Phoenix PC 5/8-STF1-7,62
Number of input channels		
Analog	4	Phoenix MC 1,5/12-ST-3,81

Audio	4804
Input sensitivity @ 8 Ω with 26 dB Gain	4.91 Vrms
Input sensitivity @ 8 Ω with 29 dB Gain	3.48 Vrms
Input sensitivity @ 8 Ω with 32 dB Gain	2.46 Vrms
Input sensitivity @ 8 Ω with 35 dB Gain	1.74 Vrms
SNR (20 Hz - 20 kHz @ 8 Ω - Typical)	110 dB(A)
Max input level	20 dBu
Frequency Response	20 Hz - 20 kHz ±1.0 dB, 1 W @ 8 Ω
Crosstalk (1 kHz)	typical -70 dB
Input impedance	20 kΩ balanced
THD+N (from 0.1 W to Half Power)	< 0.1% (typical < 0.05%)
SMPTE IMD (from 0.1 W to Half Power)	< 0.1% (typical < 0.05%)
Slew Rate	> 50 V/µs @ 8 Ω, input filter bypassed
Output impedance at 100 Hz	26 mΩ

DSP	
AD converters	24 Bit Tandem™ @ 48 kHz typical 125 dB-A Dynamic Range - 0.005 % THD+N
DA converters	24 Bit Tandem™ @ 48 kHz typical 117 dB-A Dynamic Range - 0.003 % THD+N
Sample rate converter	24 Bit @ 44.1 kHz to 96 kHz typical 140 dB Dynamic Range - 0.0001 % THD+N
Internal precision	32 bit floating point
Latency	2.5 ms fixed latency architecture
Memory/Presets	49 amplifier snapshots, virtually unlimited speaker presets
Delay	2 s (input) + 100 ms (output) 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), Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR)
Limiters	TruePower™, RMS voltage, RMS current, Peak limiter
Damping control	Active DampingControl™ and LiveImpedance™ measurement

Output Stage		4804
Maximum output power	per channel @ 8 Ω (symmetrical)*	1200 W
	per channel @ 4 Ω (symmetrical)*	1200 W
	per channel @ 2 Ω (symmetrical)*	1500 W
	@ 4 Ω Bridged (symmetrical)*	3000 W
	@ 8 Ω Bridged (symmetrical)*	2400 W
	@ Hi-Z distributed line 100 V (symmetrical)*	1200 W
	@ Hi-Z distributed line 70 V (symmetrical)*	1200 W
	per channel @ 8 Ω (asymmetrical)**	1300 W
	per channel @ 4 Ω (asymmetrical)**	2600 W
	per channel @ 2 Ω (asymmetrical)**	1800 W
	@ Hi-Z distributed line 100 V (asymmetrical)**	2200 W
	@ Hi-Z distributed line 70 V (asymmetrical)**	2100 W
Maximum unclipped output voltage @ 8 Ω		139 V_{peak}
Maximum output current		45 A_{peak}

*: All channels driven with the same burst power
**: Maximum power-sharing capacity per channel

Power & Thermal			4804
@ 115 V	Idle	Power	31.3 W
		Current Draw	0.47 A_{rms}
		Thermal Loss	107 BTU/h
	1/8 Power @ 4Ω	Power	823 W
		Current Draw	7.7 A_{rms}
		Thermal Loss	760 BTU/h
@ 230 V	Idle	Power	31.6 W
		Current Draw	0.27 A_{rms}
		Thermal Loss	108 BTU/h
	1/8 Power @ 4Ω	Power	840 W
		Current Draw	4.3 A_{rms}
		Thermal Loss	818 BTU/h
Power supply			Universal regulated switch mode with PFC, SRM
Nominal voltage (±10%)			100-240 VAC @ 50-60Hz
Operating Voltage			90-264 VAC
AC Mains connector			IEC C20 inlet (20 A max) region-specific power cord provided

Typical use case power consumption is expected to be at least 20% lower (likely more than 50% lower)

Networking	
Standards compliance	auto-sensing Fast Ethernet (IEEE 802.3u, 100 Mbit/s)
Supported topologies	Star
Remote interface	ArmoníaPlus™

Construction	
Dimensions	483 x 44.5 x 358 mm 19.0 x 1.75 x 14.1 in
Weight	7 Kg (15 lb)

Data subject to change without notice