K8

2-Channel Power Amplifier for High-Performance Touring

☑ Touring
☐ Installation

2 CH

1U

PFC

DSP
optional

- Medium to large-scale touring systems
- FOH & subwoofers
- High-power stage monitoring

for

- Stadiums & open-air events
- Arenas & concert halls
- Live clubs

2-channel mode			mono-bridged mode	
2 Ω / Ch	4 Ω / Ch	8 Ω / Ch	4 Ω / Ch pair	8 Ω / Ch pair
4,800 W	3,000 W	1,500 W	9,600 W	6,000 W

EIAJ Test Standard, 1 kHz, 1% THD

The third-strongest amplifier in the K Series, the **K8** is anything but 'small'. With its output power reaching close to 10 kW, it comfortably suits a broad range of applications.

The rather impressive power density paired with unique Powersoft technologies warrants top performance despite running off a single mains phase, while occupying only a single 19" rack unit and weighing only 12 kg/26.5 lb, a result of efficiency exceeding 85%. The **K8** can be software upgraded to become a K10, making it a safe investment that grows with loudspeaker systems without the need for replacing the amp hardware.

Like all K Series models, the **K8** is designed for, and is absolutely stable with, 2 Ω loads, further reducing the number of amps required to power a specific system.

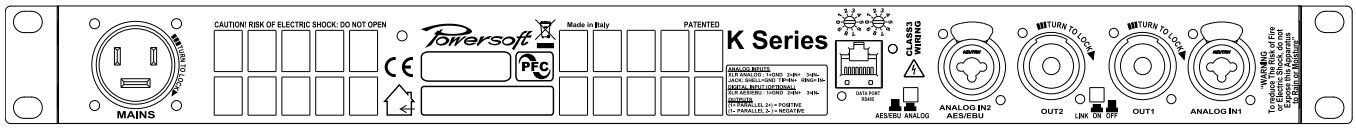
Better still, the **K8** can be equipped, at the factory or anytime later, with an optional state-of-the-art **DSP** board for extensive sound management functionality. IIR/FIR filters, safety features like TruePower™ limiting and LiveImpedance™, as well as the convenient Active DampingControl™ are intuitively manageable with the free PC software Armonía Pro Audio Suite™ via the standard RS485 communication port. [1)]

- ✓ **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 12 kg/26.5 lb
  - Green Audio Power®: more amplifier output power from the AC mains power distribution due to >85% efficiency
- ✓ **Outstanding performance and operational safety:**
  - Excellent sonic quality by design, including amp clip limiters and patented ripple cancellation network
  - Numerous amp/system/venue parameters can be configured, locked, and monitored; i.e. AC mains voltage/current draw to protect from breaker tripping
- ✓ **Communication:**
  - Fully digitally controlled amplifier providing feedback of status information
  - RS485 serial communication port standard on board, for amplifier control and monitoring via Armonía Pro Audio Suite™ software [1)]
  - Proven reliability, yet downloadable log file of all functional fault events with time-related trace
- ✓ **Safe investment: Step-up program allows smooth upgrade to K10**
- ✓ **Practically versatile:**
  - Mono-bridgeable amplifier channels; switch for linking analog signal inputs
  - AC inrush current limiting; channel output voltage limiting
  - Digital gain attenuator for gain/sensitivity selection
- ✓ Front panel interactive LCD display for local access and configuration
- ✓ SmartCard reader/writer for firmware updates, preset storage, and Step-up
- ✓ Front-to-rear airflow cooling with variable-speed fan, temperature controlled
- ✓ Full protection circuitry: over/under AC voltage; troublesome signals (clipping, VHF, long-term RMS); DC; thermal ; short circuit; mute at power on/off
- ✓ Full four years warranty
- ✓ Options & accessories:
  - SmartCard, for firmware updates or preset storage; Step-up card
  - Armonía Pro Audio Suite, free at www.armoniasuite.com
  - Power Control Hub, RS485 distribution and remote Power-on unit for up to eight K Series amplifiers, 19"/1 RU
  - KDSP Board, for DSP integration:
    - Optional top-grade DSP with high dynamic range and extensive feature set
    - Separate input/output EQ's with numerous filters of various types up to 48 dB/oct (IIR), linear phase (FIR), and hybrid (FIR+IIR)
    - Sophisticated limiter system comprising peak, RMS voltage, RMS current, and TruePower™ limiting, speaker wire compensation with Active DampingControl™, LiveImpedance™ load monitoring with musical signal
    - AES3 digital audio signal input via XLR
  - KAESOP Board (Ethernet/AES3 interface)

1) Serial communication is relatively slow; hence, max 4 amps can be monitored simultaneously, and information is reduced, e.g. no signal level metering.

K8

2-Channel Power Amplifier for High-Performance Touring



Specifications

General						
	Number of channels	2				
	Output power	stereo mode			mono-bridged mode	
	EIAJ Test Standard, 1 kHz, 1% THD	2 Ω/ch	4 Ω/ch	8 Ω/ch	4 Ω	8 Ω
		4,800 W	3,000 W	1,500 W	9,600 W	6,000 W
	Max output voltage / current	169 V_{peak} / 125 A_{peak}				
AC Mains Power						
	Power supply	Universal, regulated switch mode with PFC (Power Factor Correction)				
	Operating voltage	100-240 V ±10%, 50/60 Hz				
	Power factor cos (φ)	>0.95 @ >500 W				
	Consumption / current draw	@ 230 V		@ 115 V		
	Idle	84 W	1.03 A	91 W	1.11 A	
	1/8 of max output power @ 4 Ω	938 W	4.8 A	938 W	9.5A	
	1/4 of max output power @ 4 Ω	1,875 W	8.7 A	1,875 W	17.4 A	
Thermal						
	Environmental operating temperature	0° - 45° C / 32° - 113° F				
	Thermal dissipation	Fan, continuously variable speed, temperature controlled, front to rear airflow				
	Idle	546 BTU/h		138 kcal/h		
	1/8 of max output power @ 4 Ω	1,069 BTU/h		270 kcal/h		
	1/4 of max output power @ 4 Ω	1,593 BTU/h		402 kcal/h		
Audio						
	Gain, selectable	26 dB	29 dB	32 dB	35 dB	
	Input Sensitivity @ 8 Ω	5.50 V	3.90 V	2.75 V	1.95 V	
	Max input level	27 dBu	24 dBu	21 dBu	18 dBu	
	Gate	-52 dBu	-55 dBu	-58 dBu	-61 dBu	
	Frequency response	20 Hz - 20 kHz (1 W @ 8 Ω, ±0.5 dB)				
	S/N ratio (amplifier section)	>110 dBA (20 Hz - 20 kHz, A weighted)				
	Crosstalk separation	> 66 dB @ 1 kHz				
	Input Impedance	10 k Ω balanced				
	THD+N/SMPTE IMD/DIM 100 IMD	<0.5% from 1 W to full power (typically <0.05%)				
	Slew rate	50 V/µs @ 8 Ω, input filter bypassed				
	Damping factor @ 8 Ω	>5000 @ 20-200 Hz				
DSP (optional)						
	A/D converter	Dual 24bit 96 kHz Tandem® architecture with 127 dBA of dynamic range and THD <0.005% (20 Hz - 20 kHz)				
	D/A converter	Dual 24bit 96 kHz Tandem® architecture with 122 dBA of dynamic range and THD <0.003% (20 Hz - 20 kHz)				
	Memory	8 MB (RAM) plus 2 MB (flash for presets)				
	Presets	50 stored locally + 150 stored on a smartcard				
	Digital audio input	AES3 (glitchless fallback to analog audio selectable)				
	Delay for time alignment	up to 4 s on the input section, up to 32 ms per output, sample-by-sample stepping				
	Crossover filters	Butterworth, Linkwitz-Riley, Bessel, Arbitrary Asymmetric, 6dB/oct to 48dB/oct (IIR), linear phase (FIR), hybrid (FIR+IIR)				
	Output equalizer	16 fully parametric filters per channel, IIR: peaking, hi/lo shelving, hi/lo pass eq, band pass, band stop, all pass. Custom FIR up to 384 taps @ 48 or 96 kHz				
	Input equalizer	Three layers (PEQ, raised cosine, shelving), 32 filters each + group filters, up to 256 filters per channel				
	Cable compensation network	up to 2 Ω negative/positive wire compensation (Active DampingControl™)				
	Limiters	Power limiter (TruePower™, RMS voltage, RMS current) + Peak Limiter				
Front Panel						
	Indicators	7 meter LEDs: 5 x green, 1 x yellow, 1 x red, top yellow and red show alarm with protect description on LCD panel				
	Controls	4 pushbuttons, function depending on user menu				
	Power switch	Mains switch				
	Network data port AESOP incl. AES3	2 x RJ45 with activity LEDs				
	Maintenance	SmartCard reader/writer for firmware updates and preset storage. Easily accessible dust filter foam behind two steel covers				
Rear Panel						
	Audio signal input connectors	Analog: 2 x balanced Neutrik® Combo XLR female/1/4" jack; AES3: use channel 2 XLR				
	Loudspeaker output connectors	2 x Neutrik® Speakon NL4MD				
	Network data port RS485	1 x RJ45 with 2 recessed rotary encoders for ID selection				
	Aux voltage	1 x 2-pin Phoenix P. 3.81mm				
	AC mains	AMP CPC 45A on rear panel; AMP CPC 45A connector mounted on a 3 x 5mm² (10AWG) cable				
	Controls	1 x link switch, linking analog inputs 1 and 2; AES3/analog input switch				
Construction						
	Dimensions	W 483 mm / 19", H 44.5 mm / 1 RU, D 475 mm / 18.7"				

Powersoft • Via Enrico Conti, 5 • 50018 Scandicci (FI) • Italy
+39 055 735 0230 • sales@powersoft.it • www.powersoft-audio.com