

Unica™

8-Channel Fixed Installation Amplifier Platform



The Unica™ Series is a compact, 1RU amplifier platform developed primarily for installed applications. The 8-channel version includes 1kW, 2kW, 4kW, and 8kW total power models, making Unica™ one of the most power-dense solutions available.

The output channels can drive Lo-Z and 70/100V lines seamlessly, delivering up to twice the rated power when asymmetrically loaded, resulting in 2000W @4Ω for the 8kW model. The power supply allows worldwide operation (100-240VAC), and it is equipped with the latest generation of single-stage power factor correction (PFC). The proprietary Smart Rails Management (SRM) allows the supply rails to adapt in real time

to the required output voltage to maximize efficiency and reduce idle losses.

Unica™ platform features Powersoft's next-generation DSP for state-of-the-art processing and audio performance. The three 1Gb Ethernet ports, along with the native Dante™ and AES67 support allow for different network topologies including daisy-chain and Dante™ redundant.

The front panel display allows quick access to the amplifier operating status information for local monitoring. The PoE (Power over Ethernet) input allows for short recovery time in case of mains loss, as well as testing and monitoring loudspeakers 24/7 without the need for mains power.

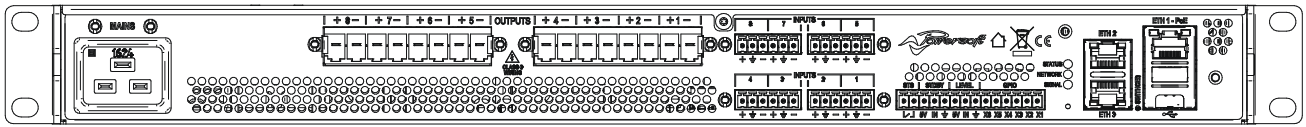
Lastly, Unica™ Series amplifiers natively support cloud connectivity for remote monitoring and control from any device anywhere in the world via the Powersoft Cloud.

- ▶ Medium to large-scale venues
- ▶ Main systems, central or distributed, subwoofers, hi-Z/lo-Z
- ▶ Mission critical applications
- ▶ Theatres, performance venues
- ▶ Houses of worship
- ▶ Convention centres
- ▶ Business centres
- ▶ Cruise ships



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Specifications

Channel Handling		
Number of output channels	8 Hi-Z or Lo-Z (bridgeable per ch. pair)	Phoenix PC 5/8-STF1-7,62
Number of input channels		
Analog	8	Phoenix MC 1,5/6-ST-3,81
Dante™/AES67	8	3 x RJ45
Audio		
Default gain		32 dB
Input sensitivity		2.84 Vrms / 11.3 dBu
Output noise floor (Analog Input)		-72 dBV(A) typical
SNR (Analog Input)		112 dB(A)
Output noise floor (Dante™/AES67 Input)		-76 dBV(A) typical
SNR (Dante™/AES67 Input)		116 dB(A)
Max input level		>+24 dBu
Frequency Response		20 Hz - 20 kHz +0.0 dB/-1.0 dB, @ 8 Ω
Crosstalk		<-80dB typical, 20Hz to 1 kHz range <-60dB @20kHz typical
Input impedance		20 kΩ balanced
THD+N (from 0.1 W to Half Power)		< 0.05%
SMPTE IMD (from 0.1 W to Half Power)		< 0.01%
Damping factor		>2500 20Hz to 500 Hz
DSP		
AD converters		24 Bit Tandem™ @ 48 kHz 130 dB(A) Dynamic Range - 0.00005 % THD+N
DA converters		24 Bit Tandem™ @ 48 kHz 132 dB(A) Dynamic Range - 0.00003 % THD+N
Latency		2.6 ms analog Input to amplifier Output
Onboard memory		Store and recall up to 50 amplifier snapshot
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 linear phase (FIR), Butterworth,
Crossover		Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR)
Limiters		RMS voltage, RMS current, Peak limiter, TruePower™, Dynamic EQ
Damping control		Active DampingControl™
Loudspeaker diagnostic		Pilot tone monitoring, average impedance monitoring, load impedance measurement <10 s
Startup time		<0.5 s (with PoE backup power)
Construction		
Dimensions		489 x 400 x 44.3 (WxDxH) mm 19.3 x 15.8 x 1.7 (WxDxH) in
Weight		7.9 Kg (17.4 lb)
IP Class		IP 20
Environmental		
Operating temperature range		0°C to +50°C (derating above 35°C)
Storage relative humidity range		10% to 85% humidity (non condensing)

Output Stage	1K8	2K8	4K8	8K8		
Commercial total rated power	1000	2000	4000	8000	W	
Maximum output power	per channel @ 100 V (symmetrical)*	125	250	500	800	W
	per channel @ 70 V (symmetrical)*	125	250	500	1000	W
	per channel @ 16 Ω (symmetrical)*	125	250	500	650	W
	per channel @ 8 Ω (symmetrical)*	125	250	500	1000	W
	per channel @ 4 Ω (symmetrical)*	125	250	500	1000	W
	per channel @ 2 Ω (symmetrical)*	125	250	500	1000	W
	per bridged pair @ 8 Ω (symmetrical)*	250	500	1000	2000	W
	per bridged pair @ 4 Ω (symmetrical)*	250	500	1000	2000	W
	per channel @ 100 V (asymmetrical)**	250	500	1000	2000	W
	per channel @ 70 V (asymmetrical)**	250	500	1000	1500	W
	per channel @ 16 Ω (asymmetrical)**	250	500	500	750	W
per channel @ 8 Ω (asymmetrical)**	250	500	1000	1500	W	
per channel @ 4 Ω (asymmetrical)**	250	500	1000	2000	W	
per channel @ 2 Ω (asymmetrical)**	250	500	1000	1000	W	
Maximum unclipped output voltage	140	160	160	160	V _{peak}	
Maximum output current	25	30	40	48	A _{peak}	

*: Available by driving and loading all the channels symmetrically.
 **: Maximum power-sharing capacity per channel

		Power & Thermal	1K8	2K8	4K8	8K8		
@ 115 V	Idle	Input Power	65	65	65	65	W	
		Current Draw	0.707	0.707	0.707	0.707	A _{rms}	
		Thermal Loss	222	222	222	222	BTU/h	
	1/8 Max Power @ 4Ω	Input Power	253	406	729	1380	W	
		Current Draw	2.31	3.61	6.44	12	A _{rms}	
		Thermal Loss	437	532	781	1297	BTU/h	
	@ 230 V	Idle	Input Power	73	73	73	73	W
			Current Draw	0.605	0.605	0.605	0.605	A _{rms}
			Thermal Loss	249	249	249	249	BTU/h
		1/8 Max Power @ 4Ω	Input Power	251	412	724	1360	W
Current Draw			1.45	2.24	3.51	6.1	A _{rms}	
Thermal Loss			431	553	764	1228	BTU/h	
Power supply		Universal regulated switch mode with PFC and SRM						
Nominal Voltage		100-240 VAC @ 50/60 Hz (400 VAC surge)						
Operating Voltage		80-265 VAC @ 50/60 Hz						
Supply tolerance		+10%-10%						
Power system		TT/TN						
Overvoltage category		II						
Class of equipment		I						
AC Mains connector		IEC C20 inlet (20 A max) region-specific power cord provided						
Eco Mode consumption		43 W						
Standby consumption		20 W Typical, CPU fully functional						
PoE Input		Class 4 or higher						
Networking								
Network		3 x Gigabit Ethernet ports RJ45 connectors						
Network modes		Switched Mode, Split-Redundant Mode						
Remote interface		ArmoniaPlus™, Powersoft Cloud						

Data subject to change without notice.

