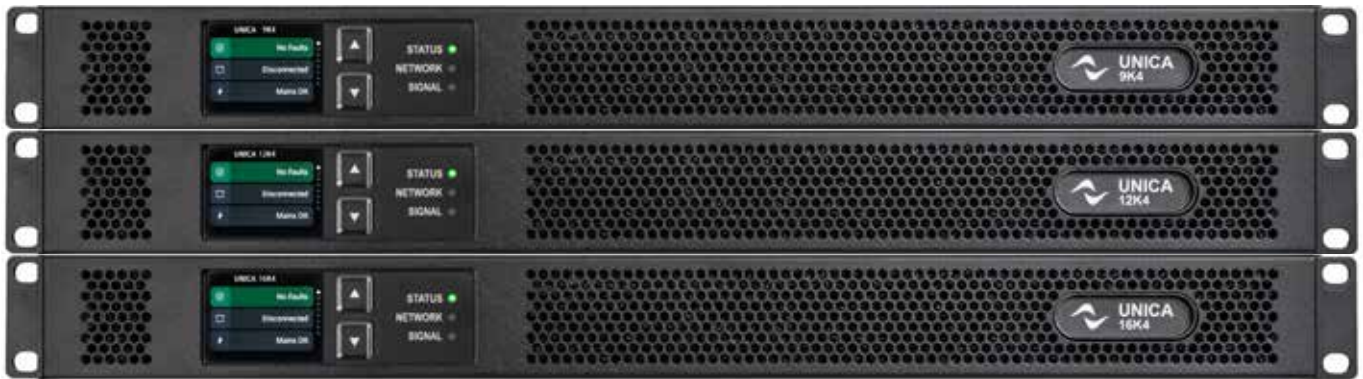


# Unica™

## 4-Channel Cloud Based Amplifier Platform



The Unica™ Series is a compact, 1RU amplifier platform developed primarily for installed applications. The 4-channel version includes 9kW, 12kW, and 16kW 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 5200W @ 4Ω for the 16kW model, when asymmetrically loaded. 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.

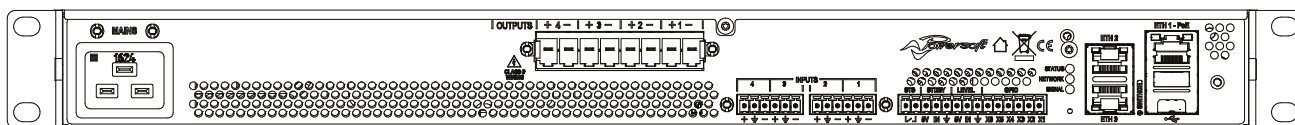
Unica™ platform features Powersoft's next-generation DSP for state-of-the-art processing and audio performance. The three 1Gb Ethernet ports, along with the native Dante™ and AES67 support allow for different network topologies including daisy-chain and Dante™ redundant.

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 Universo™, the Powersoft cloud platform interface.

- ▶ 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





## 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 1,5/6-ST-3,81
Dante™/AES67	4 3 x RJ45
Audio	
Default gain	32 dB
	9K4 12K4 16K4
Input sensitivity	3.0 V <sub>rms</sub> 11.8 dBu 3.5 V <sub>rms</sub> 13 dBu 3.9 V <sub>rms</sub> 14 dBu
Output noise floor (Analog Input)	-72 dBV(A) typical
SNR (Analog Input)	113.6 dB(A) 114.8 dB(A) 116 dB(A)
Output noise floor (Dante™/AES67 Input)	-76 dBV(A) typical
SNR (Dante™/AES67 Input)	117.6 dB(A) 118.8 dB(A) 120 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
Crossover	linear phase (FIR), Butterworth, 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
Startup time	<10 s <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	8 Kg (17.6 lb)

Data subject to change without notice.

Output Stage	9K4	12K4	16K4		
Commercial total rated power	9000	12000	16000	W	
Maximum output power	per channel @ 100 V (symmetrical)*	2250	3000	4000	W
	per channel @ 70 V (symmetrical)*	2000	2500	3000	W
	per channel @ 16 Ω (symmetrical)*	900	1100	1300	W
	per channel @ 8 Ω (symmetrical)*	1600	2000	2500	W
	per channel @ 4 Ω (symmetrical)*	2250	3000	4000	W
	per channel @ 2 Ω (symmetrical)*	2000	3000	4000	W
	per bridged pair @ 8 Ω (symmetrical)*	4500	6000	8000	W
	per bridged pair @ 4 Ω (symmetrical)*	4000	6000	8000	W
	per channel @ 100 V (asymmetrical)**	3200	4000	5000	W
	per channel @ 70 V (asymmetrical)**	2500	3000	3500	W
	per channel @ 16 Ω (asymmetrical)**	900	1100	1400	W
	per channel @ 8 Ω (asymmetrical)**	1600	2000	2700	W
per channel @ 4 Ω (asymmetrical)**	3200	4000	5200	W	
per channel @ 2 Ω (asymmetrical)**	2500	3500	4500	W	
Maximum unclipped output voltage	170	195	220	V <sub>peak</sub>	
Maximum output current	60	70	80	A <sub>peak</sub>	

\*. Available by driving and loading all the channels symmetrically.

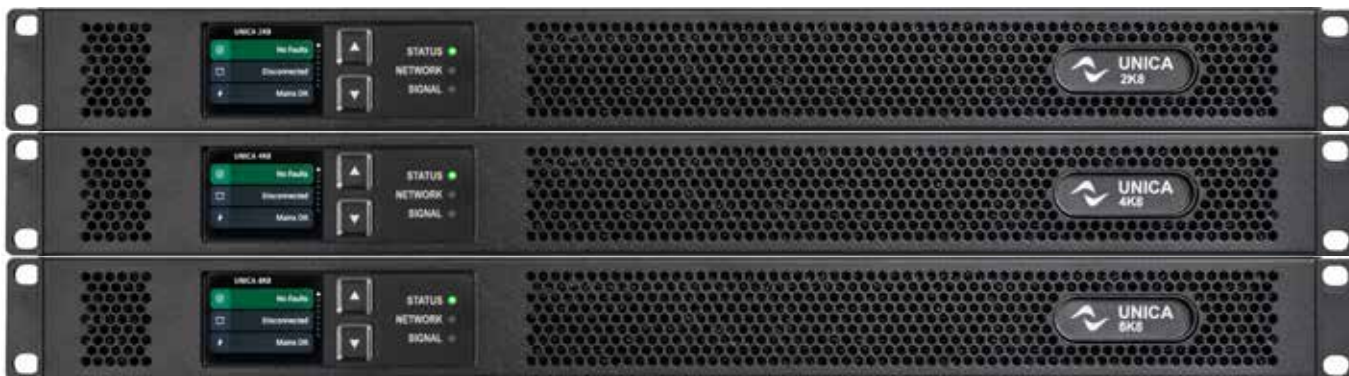
\*\*. Maximum power-sharing capacity per channel

Power & Thermal		9K4	12K4	16K4		
@ 115 V	Power	55	55	55	W	
	Idle	Current Draw	0.65	0.65	0.65	A <sub>rms</sub>
		Thermal Loss	190	190	190	BTU/h
	1/8 Power @ 4Ω	Power	1463	1951	2600	W
		Current Draw	13.1	17.5	23.2	A <sub>rms</sub>
	Thermal Loss	1147	1528	2046	BTU/h	
@ 230 V	Power	62	62	62	W	
	Idle	Current Draw	0.52	0.52	0.52	A <sub>rms</sub>
		Thermal Loss	211	211	211	BTU/h
	1/8 Power @ 4Ω	Power	1450	1940	2550	W
		Current Draw	6.6	8.8	11.6	A <sub>rms</sub>
	Thermal Loss	1108	1500	1875	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				
AC Mains connector		IEC C20 inlet (20 A max) region-specific power cord provided				
Eco Mode consumption		35 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™, Universo™				



# Unica™

## 8-Channel Cloud Based Amplifier Platform



The Unica™ Series is a compact, 1RU amplifier platform developed primarily for installed applications. The 8-channel version includes 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.

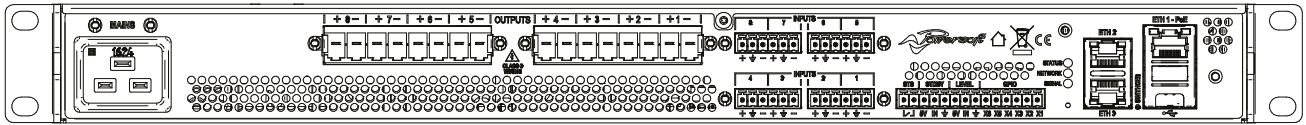
Lastly, Unica™ Series amplifiers natively support cloud connectivity for remote monitoring and control from any device anywhere in the world via Universo™, the Powersoft cloud platform interface.

- ▶ Medium to large-scale venues
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- ▶ Houses of worship
- ▶ Convention centres
- ▶ Business centres
- ▶ Cruise ships



# Unica™

## 8-Channel Cloud Based Amplifier Platform



## 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
Crossover		linear phase (FIR), Butterworth, 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
Startup time		<10 s <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)

Data subject to change without notice.

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

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

Power & Thermal		2K8	4K8	8K8			
@ 115 V	Power	65	65	65	W		
	Idle	Current Draw	0.707	0.707	0.707	A <sub>rms</sub>	
		Thermal Loss	222	222	222	BTU/h	
	1/8 Power @ 4Ω	Power	406	729	1380	W	
		Current Draw	3.61	6.44	12	A <sub>rms</sub>	
		Thermal Loss	532	781	1297	BTU/h	
		Power	73	73	73	W	
	@ 230 V	Idle	Current Draw	0.605	0.605	0.605	A <sub>rms</sub>
			Thermal Loss	249	249	249	BTU/h
		1/8 Power @ 4Ω	Power	412	724	1360	W
			Current Draw	2.24	3.51	6.1	A <sub>rms</sub>
			Thermal Loss	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					
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™, Universo™						

