Unica™

4-Channel Fixed Installation Amplifier Platform





The Unica™ Series is a compact, 1RU amplifier platform developed primarily for installed applications. The 4-channel version includes 5kW, 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.

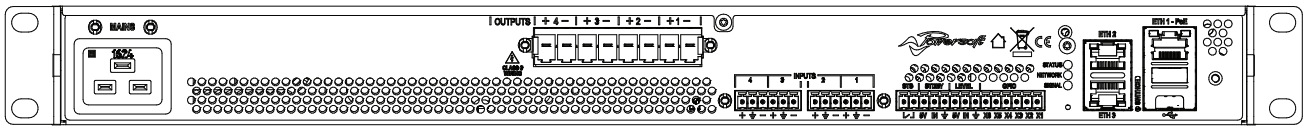
The front panel display allows quick access to the amplifier operating status information for local monitoring. The PoE (Power over Ethernet) input allows for short recovery time in case of mains loss, as well as testing and monitoring loudspeakers 24/7 without the need for mains power.

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

Unica™

4-Channel Fixed Installation Amplifier Platform



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_{rms} 11.8 dBu	3.5 V_{rms} 13 dBu	3.9 V_{rms} 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)
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		5K4	9K4	12K4	16K4	
Commercial total rated power		5000	9000	12000	16000	W
Maximum output power	per channel @ 100 V (symmetrical)*	1250	2250	3000	4000	W
	per channel @ 70 V (symmetrical)*	1250	2000	2500	3000	W
	per channel @ 16 Ω (symmetrical)*	700	900	1100	1300	W
	per channel @ 8 Ω (symmetrical)*	1250	1600	2000	2500	W
	per channel @ 4 Ω (symmetrical)*	1250	2250	3000	4000	W
	per channel @ 2 Ω (symmetrical)*	1250	2000	3000	4000	W
	per bridged pair @ 8 Ω (symmetrical)*	2500	4500	6000	8000	W
	per bridged pair @ 4 Ω (symmetrical)*	2500	4000	6000	8000	W
	per channel @ 100 V (asymmetrical)**	1800	3200	4000	5000	W
	per channel @ 70 V (asymmetrical)**	1500	2500	3000	3500	W
	per channel @ 16 Ω (asymmetrical)**	700	900	1100	1400	W
	per channel @ 8 Ω (asymmetrical)**	1250	1600	2000	2700	W
	per channel @ 4 Ω (asymmetrical)**	1800	3200	4000	5200	W
	per channel @ 2 Ω (asymmetrical)**	1800	2500	3500	4500	W
Maximum unclipped output voltage		140	170	195	220	V_{peak}
Maximum output current		50	60	70	80	A_{peak}

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

Power & Thermal			5K4	9K4	12K4	16K4	
@ 115 V	Idle	Input Power	55	55	55	55	W
		Current Draw	0.65	0.65	0.65	0.65	A_{rms}
		Thermal Loss	190	190	190	190	BTU/h
	1/8 Max Power @ 4Ω	Input Power	869	1463	1951	2600	W
		Current Draw	7.68	13.1	17.5	23.2	A_{rms}
		Thermal Loss	833	1147	1528	2046	BTU/h
@ 230 V	Idle	Input Power	62	62	62	62	W
		Current Draw	0.52	0.52	0.52	0.52	A_{rms}
		Thermal Loss	211	211	211	211	BTU/h
	1/8 Max Power @ 4Ω	Input Power	880	1450	1940	2550	W
		Current Draw	4.43	6.6	8.8	11.6	A_{rms}
		Thermal Loss	870	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				
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			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	ArmoníaPlus™, Powersoft Cloud

Data subject to change without notice.