DPA SERIES DPA-3

DESCRIPTION

The DPA series relies on a proprietary switch mode power supply (SMPS) equipped with a DSP-controlled PFC, capable of delivering 10,000 W regardless of mains voltages (from 240 V down to 100 V.) The PFC offers high immunity to unstable mains and lowers typical power consumption by up to 40% for the same usage conditions i.e.,more power is available to the output stages from a given circuit (12 A at 230 V mains, 25 A at 120 V mains).In addition to the high raw RMS power rating, the ability to deliver energy (power x hold time) yields the best performance from loudspeaker systems, especially in LF reproduction.

Operating at 96 kHz with 40 bit float precision, the DSP combines IIR and FIR filters to generate perfectly linearized phase curves and significantly improved impulse responses for an even, more natural, transparent and realistic sound experience.

APPLICATIONS

Auditorium Sound Reinforcement
Sports Facilities
Audio-Visual Systems
Portable Sound Reinforcement
House of Worship Installations
Theatrical Sound Installations
Nightclub Installations
Stage & Vocal Monitor

SPECIFICATIONS

Operating conditions	
Temperature	Room temperature from 0° C / 32° F to +50° C / 122° F
Amplification and power supply	
Amplification class	Class D
Output power CEA-2006 / 490A (1% THD, 1 kHz, all channels driven)	4 x 1200 W RMS (at 8 Ω)
	4 x 2200 W RMS (at 4 Ω)
	4 x 2500 W RMS (at 2.7 Ω)
Power supply model	Universal Switched Mode Power Supply (SMPS) with Power Factor Correction (PFC)
Power factor	> 0.9
Mains rating	100 V - 240 V ~ ±10%, 50-60 Hz
Nominal current requirements	25 A for 100-120 V, 12 A for 200-240 V
Audio specifications	
Frequency response	20 Hz - 20 kHz, ± 0.1 dB (at 8 Ω, 60 W output power)
	20 Hz - 20 kHz, ± 0.1 dB (at 4 Ω, 120 W output power)
Distortion THD+N (20 Hz - 10 kHz)	0.05% (at 8 Ω, 60 W output power)
	< 0.1% (at 4 Ω, 120 W output power)
Output dynamic range (20 Hz - 20 kHz, 8 Ω, A-weigthed)	> 114 dB
Noise level (20 Hz - 20 kHz, 8 Ω, A-weigthed)	< - 72 dBV
Channel separation (at 1 kHz , 4 Ω)	> 85 dB
Latency (for both analog and digital inputs)	Standard operating mode: 3.84 ms
	Low latency operating mode: 0.76 ms
DSP	
Digital Signal Processor (DSP)	1 x SHARC 40-bit, floating point, 96 kHz sampling rate
I/O routing	Flexible 4x4 routing matrix
Per output channel	Built-in EQ station with 8 IIR, Internal IIR and FIR EQ algorithms for speaker phase
	linearization and improved impulse responses
Output delay	0 ms to 1000 ms
Circuits protection	
Mains and power supply	Over and under voltage / over temperature / overcurrent
	(fuse protection, and inrush current protection)
Power outputs	Over current / DC / short circuit / rail over and under voltage / over temperature
Cooling	Cooling fans with temperature control speed
Inputs	
Analog: 4 balanced analog line inputs with passively connected link	
A/D conversion	4 cascaded 24-bit analog/digital converters (130 dB dynamic range)
Input impedance	22 kΩ (balanced)
Max. input level	22 dBu (balanced, THD 1%)
Physical data	
Height	2U
Weight	11 kg / 24.3 lb
Protection rating	IP2X

BAG END Loudspeakers . 1201 Armstrong Street . Algonquin, Illinois, 60102 USA . Voice 847 658 8888 . Fax 847 658 5008 . www.bagend.com . V.031221

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