



DPAfour

DIGITAL POWER AMPLIFIERS



The DPAfour is a 2U 19" rack mountable, 4-channel class-D power amplifier, transformer isolated for 100V, 70V, 50V and 40hm distributed loudspeaker systems. There are two models in the DPAfour range: DPAfour125 rated at 4 x 125W and DPAfour250 at 4 x 250W.

Each channel can deliver up to 125W or 250W when used separately, or can be bridged to deliver higher power. The amplifier has a dual-voltage mains supply 110/230VAC and a 24VDC battery back-up input which allows it to be used in combination with a battery backup system for maximum availability and reliability in an emergency evacuation system. DPAfour amplifiers have short-to-ground, short-circuit detection and line-impedance surveillance up to 5% deviation using the DIVA8 or IDA8 systems for loudspeaker-line surveillance. They support both single spur and redundant cabling (A/B).

The DPAfour amplifiers have a single power supply that shares redundancy via the SONAES battery charger and redundant power supply. Using intelligent switching, one SONAES can serve up to seven DPAfour amplifiers and three IDA8 units, or one DIVA8 with nine slaves. In case an internal power supply fails, the amplifier modules will automatically switch over to the backup power supply provided by the SONAES, leaving the batteries untouched and available in the event of a power failure.

MAIN CHARACTERISTICS

- 4 audio outputs (100/70/50V / 4ohm selectable)
- Fault reporting outputs
- Four audio inputs with gain
- Advanced audio processing for each amplifier channel using DIVA8 or IDA8 systems
- Supervision of the amplifiers through DIVA8 or IDA8 systems
- Back up amplifier switching through DIVA8 or IDA8 systems
- Loudspeaker line and loudspeaker impedance surveillance through DIVA8 or IDA8 systems
- Output bridging for higher power

CONTROLS AND INDICATORS

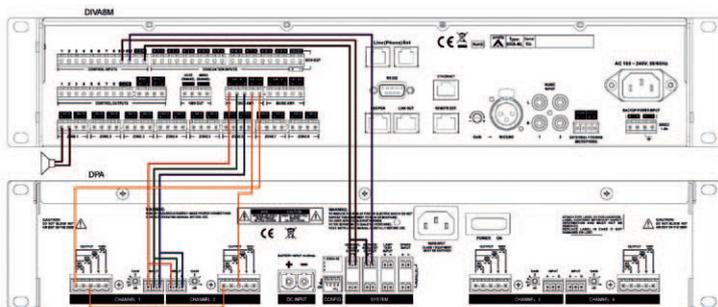
- LED VU metering Status indicators for: Signal, Clip, Mains, Battery, Channel fault and General fault

INTERCONNECTIONS

- Rotary volume control
- Mains switch
- Mains input
- Battery backup input
- Four line inputs
- 100V, 70V, 50V or 4ohm outputs (for each amplifier channel)

DIVA & DPA

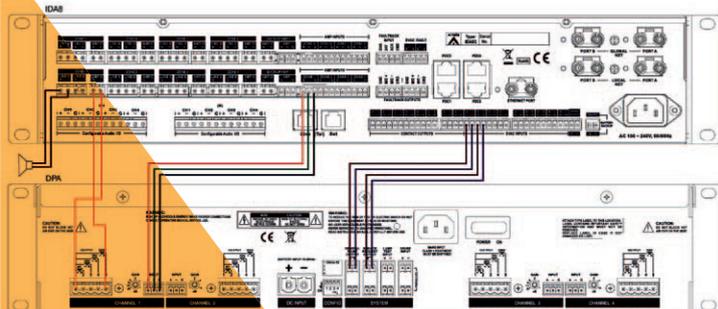
Wiring example with DPA Ch 1&2 bridged*



* If DPA channels are bridged, gain settings should be set at equal level for both channel 1&2 and/or 3&4

IDA8 & DPA

Wiring example



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DPAfour

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CERTIFICATIONS AND APPROVALS

Region Certifications

Region	CE	Certifications
Europe	CE	CE - 0359 (Intertek)
	Immunity	according to EN50103-4
	PAVA	EN54-16 certified 2012

PARTS INCLUDED

Quantities	Components
1	DPA xxxx Digital Power Amplifier
1	Power cord
1	Set of connectors
1	Set of feet

TECHNICAL SPECIFICATIONS

Electrical

Mains power supply

Voltage	115 or 230VAC \pm 15%, 50/60Hz
Power consumption**	standby - idle* - Pmax
DPA4125	1W - 38W - 600W
DPA4250	1W - 44W - 1169W

** (Total Mains-power consumption @ 230VAC)

* (Alarm cycle + 10V pilot-tone @ 24VDC)

Battery power supply

Voltage	19-30VDC
Power consumption***	standby - idle* - Imax
DPA4125	0.03A - 1.45A - 22.5A
DPA4250	0.03A - 1.65A - 43.85A

*** (Total DC-current @ 24VDC)

* (Alarm cycle + 10V pilot-tone @ 24VDC)

Line inputs	4 x (One per channel)
Connector	3-pin phoenix
Frequency response	\pm 3dB @ 50Hz to 20kHz
S/N	> 90dB
THD	< 0.1% @ 1kHz
Input sensitivity	770mV
Input impedance	20kohm

Loudspeakers outputs	DPA4125
Rated load resistance	80ohm (100V)
Rated load capacitance	62.5nF (100V)
Rated output power (per channel)	125W (cont. at 40°C)
Two channels bridged	250W (cont. at 40°C)

Loudspeakers outputs	DPA4250
Rated load resistance	40ohm (100V)
Rated load capacitance	120nF (100V)
Rated output power (per channel)	250W (cont. at 40°C)
Two channels bridged	500W (cont. at 40°C)

Frequency response	40Hz to 20kHz (\pm 3 dB)
S/N	>90dB (no pilot tone)
Crosstalk	<70dB at nominal load for 1kHz
Distortion	<0.1% (@ 1kHz) @ -10dB of rated outputpower

Mechanical

Dimensions (H x W x D)

19" rack use, with brackets	88.5 x 483 x 370mm
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Weight

DPA 4125	14kg (31lb)
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DPA 4250	18kg (40lb)
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Mounting	19"-rackmount
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Colour	RAL7016
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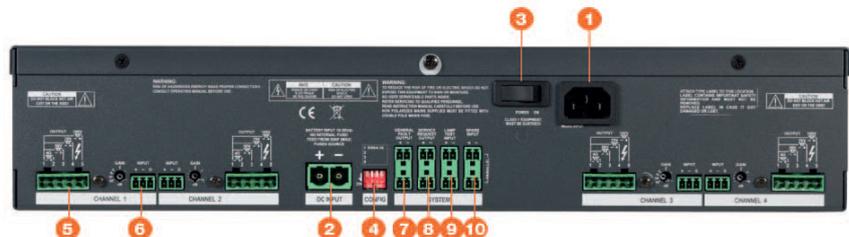
Environmental

Operating temperature	-5°C to +55°C (+23°F to +131°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Relative humidity	15% to 90%
Air pressure	600 to 1100hPa

Ordering Informations

DPAfour125, Digital Power Amplifier

DPAfour250, Digital Power Amplifier



INSTALLATION NOTES

1.	AC Power inlet	6.	Channel 1-4 audio inputs
2.	24VDC backup	7.	General fault output contact
3.	Power Switch	8.	Service request output contact
4.	Configuration switches	9.	Lamp test input contact
5.	Channel 1-4 audio outputs	10.	Spare input contact

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