

DPAfour

DIGITAL POWER AMPLIFIERS



MAIN CHARACTERISTICS

- 4 audio outputs (100/70/50 V / 4 Ohm 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

Rear

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

REGION CERTIFICATIONS

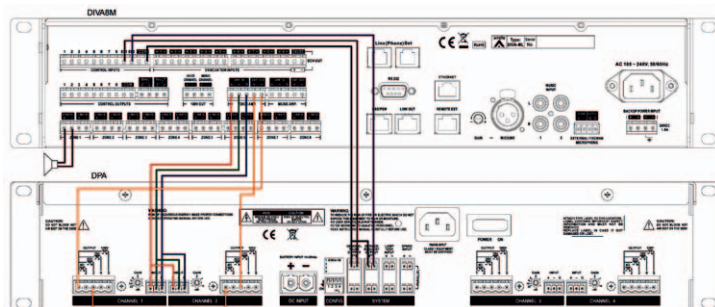
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|--------|----------|------------------------|
| Europe | CE | CE – 0359 (Intertek) |
| | Immunity | according to EN50103-4 |
| | PAVA | EN54-16 certified 2012 |

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

Each channel can deliver up to 250 W when used as separate channel or can be bridged to deliver higher power. The amplifier has a dual-voltage mains supply 110/230V AC and a 24 V DC 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-spure and redundant loop cabling (A/B).

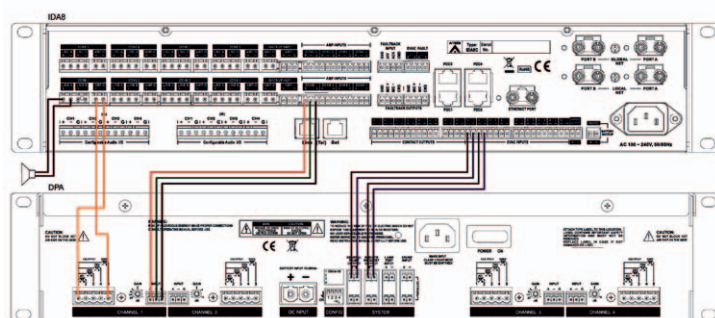
The DPAfour amplifiers have a single power supply that shares redundancy via the SONAES battery charger and redundant power supply. Using an intelligent switching construction, one SONAES can serve up to seven DPAfour amplifiers and three IDA8 units, or one DIVA8 with nine slaves. In case an internal 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 for emergency cases.

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



DPAfour

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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 230 VAC ±15%, 50/60 Hz

Power consumption** standby - idle* - Pmax

DPA4125 1 W – 38 W – 600 W

DPA4250 1 W – 44 W – 1169 W

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

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

Battery power supply

Voltage 19-30 VDC

Power consumption*** standby - idle* - Imax

DPA4125 0.03 A – 1.45 A – 22.5 A

DPA4250 0.03 A – 1.65 A – 43.85 A

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

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

Line inputs 4 x (One per channel)

Connector 3-pin phoenix

Frequency response +/-3 dB @ 50 Hz and 20 kHz

S/N > 90 dB

THD < 0,1% @ 1 kHz

Input sensitivity 770 mV

Input impedance 20 kOhm

Loudspeakers outputs DPA4125

Rated load resistance 80 ohm (100 V)

Rated load capacitance 62,5 nF (100 V)

Rated output power (per channel) 125 W (cont. at 40°C)

Two channels bridged 250 W (cont. at 40°C)

Loudspeakers outputs DPA4250

Rated load resistance 40 ohm (100 V)

Rated load capacitance 120 nF (100 V)

Rated output power (per channel) 250 W (cont. at 40°C)

Two channels bridged 500 W (cont. at 40°C)

Frequency response 40 Hz to 20 kHz (-3 dB)

S/N >90 dB (no pilot tone)

Crosstalk <70 dB at nominal load for 1 kHz

Distortion <0,1% (@ 1 kHz)
@ -10dB of rated outputpower

Mechanical

Dimensions (H x W X D)

19" rack use, with brackets 88,5 x 483 x 370 mm

Weight

DPA 4125 14 kg (31 lb)

DPA 4250 18 kg (40 lb)

Mounting 19"-rackmount

Colour RAL7016

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)

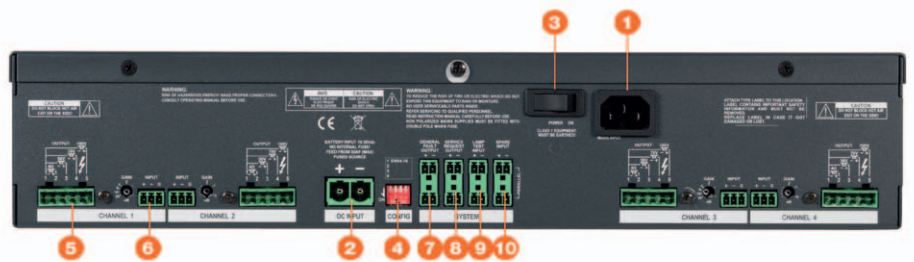
Relative humidity 15% to 90%

Air pressure 600 to 1100 h Pa

Ordering Informations

DPAfour125, Digital Power Amplifier

DPAfour250, Digital Power Amplifier



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



0359-CDP-0177
0359-CDP-0140

