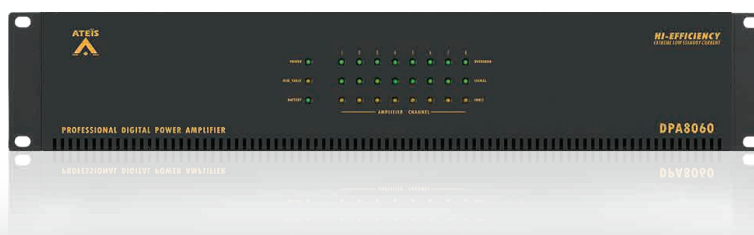ATEÏS®

DPA

Digital Power Amplifier

The DPA is a digital power amplifier with extremely low power consumption (0.2W per channel) during standby mode, and high amplification efficiency of 90%. A four-step DIP switch can be configured to enable/disable the function of standby mode (power-save mode) when powered by AC mains; to request the LEDs on the front panel to comply to EN54-16; and to enable/disable the battery monitoring.

The amplifiers are powered by 100 VAC ~ 240 VAC 50/60 Hz or 48 VDC battery backup. Each model has the line inputs with individual volume gain, status LEDs (power, battery, fault, general fault, overload and signal) on the front panel, and the DPA models can bridge two channels to double the power wattage.

FEATURES

- Class-D amplification performance and energy-efficient design
- Universal switch mode power supply with PFC (Power Factor Correction)
- Full protection circuitry against over/under AC voltage, overload, overheat, short-to-ground or short circuit on speaker lines
- Four models available: DPA8060 (60W x 8CH), DPA4125 (125W x 4CH) and DPA4250 (250W x 4CH) and DPA2500 (500W x 2CH)
- Support bridging two channels to double the power wattage
- Airflow cooling by internal speed fan (temperature controlled)
- Applicable for full scale of system applications: hotel, railway, airport, houses of worship, educational and sports facilities, club etc.

CONTROLS AND INDICATORS

- **Front**
  · General fault LED (system failed)
  · Overload LED
  · Signal, fault LEDs
  · Power and battery LEDs
- **Rear**
  · AC power socket
  · RS485 for firmware update
  · Lamp input and spare contact input (DPA4125/4250/2500)
  · General fault output and service request output
  · DIP switch for Sleep-AC, EN54-16, BAT-MNT, and one for reserved
  · 2/4/8 (depend on model) channel amp outputs
  · 2/4/8 (depend on model) channel inputs & volume gain
  · 48 VDC battery backup input

REAR PANEL

DPA8060

DPA4125

DPA4250

DPA2500

DPA

High-Efficiency Class-D Digital Power Amplifier

ELECTRICAL

- AC power input: 100 ~ 240 VAC, 50/60 Hz
- Power consumption (AC)

model	idle	1/2 full power	full power
DPA8060	42W	365W	705W
DPA4125	34W	340W	650W
DPA4250	38W	660W	1300W
DPA2500	28W	700W	1320W

Idle: pilot tone -36 dBu, 1/2 full power: alarm tone

- DC power input: 43 ~ 56 VDC
- Power consumption (DC)

model	standby mode	idle	1/8 full power	1/2 full power	full power
DPA8060	2W	35W	92W	330W	635W
DPA4125	0.7W	30W	85W	305W	585W
DPA4250	0.7W	34W	165W	595W	1170W
DPA2500	0.7W	25W	175W	630W	1180W

Idle: pilot tone -36 dB, 1/8 full power: speech, 1/2 full power: alarm tone

- Amplifier outputs
  - EU type: 100V, 50V, 4 ohm
  - US type: 70V, 35V, 4 ohm

AUDIO CHARACTERISTICS

- Frequency response: 50 ~ 20 kHz (±3 dB) @ 0 dBu
- SNR: > 90 dB
- THD+N: < 0.1% @ 1 kHz
- Maximum input level: 0 dBu
- Input impedance
  - DPA2500: 10k ohm
  - DPA8060/DPA4125/DPA4250: 12k ohm
- Crosstalk: > 70 dB @ 0 dBu gain

LOUDSPEAKERS OUTPUTS

model	rated output power	rated load impedance
DPA8060	60W	167 ohm (100V); 82 ohm (70V) 41.6 ohm (50V); 20 ohm (35V)
DPA4125	125W	80 ohm (100V); 40 ohm (70V) 20 ohm (50V); 10 ohm (35V)
DPA4250	250W	40 ohm (100V); 20 ohm (70V) 10 ohm (50V); 5 ohm (35V)
DPA2500	500W	20 ohm (100V); 10 ohm (70V) 5 ohm (50V); 2.5 ohm (35V)

* (1 min. at 40°C) (per CH)

CERTIFICATIONS AND APPROVALS

Europe	Voice Alarm	EN54-16 (In process)
Europe	CE/EMI	EN55032: 2015 AC: 2016 Class A
Europe	CE/EMC	EN61000-3-2:2014 EN61000-3-3:2013 EN55020:2007/A11:2011
Europe	CE/LVD	EN60065: 2014 (In process)
USA	Mass Notification Systems	UL2572 (Pending)
USA	Safety	UL60065 (Pending)

MECHANICAL

- Dimensions (W x H x D)
  - DPA8060: 437 x 88 x 400 mm (17.2 x 3.5 x 15.7 inch)
  - DPA4125: 437 x 88 x 370 mm (17.2 x 3.5 x 14.6 inch)
  - DPA4250: 437 x 88 x 387 mm (17.2 x 3.5 x 15.2 inch)
  - DPA2500: 437 x 88 x 387 mm (17.2 x 3.5 x 15.2 inch)
- Weight
  - DPA8060: 14.8 kg (32.6 lbs)
  - DPA4125: 14.5 kg (32 lbs)
  - DPA4250: 14.5 kg (32 lbs)
  - DPA2500: 16 kg (35.2 lbs)
- Mounting: 19" 2U rack
- Colour: RAL 7016

ENVIRONMENTAL

- Operating temperature: -5 ºC ~ +55 ºC (+23 ºF ~ +131 ºF)
- Storage temperature: -40 ºC ~ +70 ºC (-40 ºF ~ +158 ºF)
- Relative humidity: 20% to 95%
- Air pressure: 600 to 1100 hPa
- Heat dissipation
  - DPA8060: 767 BTU/hr
  - DPA4125: 512 BTU/hr
  - DPA4250: 1024 BTU/hr
  - DPA2500: 1092 BTU/hr

ORDERING INFORMATION

- DPA8060E: 60Wx8 DPAmp/100-240Vac,OUT 100V/50V/4ohm
- DPA8060U: 60Wx8 DPAmp/100-240Vac,OUT 70V/35V/4ohm
- DPA4125E: 125Wx4 DPAmp/100-240Vac,OUT 100V/50V/4ohm
- DPA4125U: 125Wx4 DPAmp/100-240Vac,OUT 70V/35V/4ohm
- DPA4250E: 250Wx4 DPAmp/100-240Vac,OUT 100V/50V/4ohm
- DPA4250U: 250Wx4 DPAmp/100-240Vac,OUT 70V/35V/4ohm
- DPA2500E: 500Wx2 DPAmp/100-240Vac,OUT 100V/50V/4ohm
- DPA2500U: 500Wx2 DPAmp/100-240Vac,OUT 70V/35V/4ohm