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PRODUCT SHEET
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AMBIENT SYSTEM

Ambient System SMART-PA8080 class D power amplifier 8 × 80 W

Product code SMART-PA8080 · Voice alarm systems › Amplifiers and power supplies

8-channel class D power amplifier for the smartVES system, 8 × 80 W. 48 V DC supply for a battery-backed system, 100 V and 50 V outputs, 2U rack enclosure. EN 54-16.

- Approved to EN 54-16, CPR 1438-CPR-0948
- 8 × 80 W, bridged up to 4 × 160 W
- Transformer-isolated class D outputs for 100 V and 50 V lines
- 48 V DC supply from the SMART-PSM48 power management unit
- Indicators for supply, operation and fault on the front panel

Product description

SMART-PA8080 is an 8-channel class D power amplifier of Ambient System's smartVES system for 100 V and 50 V loudspeaker systems. The outputs are transformer-isolated. The rated power per channel is 80 W. The channels can be bridged, giving outputs of 1 × 160 W + 6 × 80 W, 2 × 160 W + 4 × 80 W, 3 × 160 W + 2 × 80 W or 4 × 160 W.

The amplifier operates on 48 V DC, so it can be connected to a battery-backed supply. Power comes from SMART-PS48800 power supply units via the SMART-PSM48 power management unit. The power management unit includes a battery charger and meets the requirements of EN 54-4.

The rear panel has level controls for each channel, a volt-free general fault contact and the connectors. The enclosure is 2U high and is mounted in a 19-inch rack. This model has no background music (BGM) inputs. The model with background music inputs is SMART-PA8080E.

Technical data

Product code	SMART-PA8080
Manufacturer	Ambient System
Product group	Voice alarm systems › Amplifiers and power supplies
Channels and power	8 × 80 W (rated load 125 Ω / 100 nF, 1 kHz)
Bridged operation	1 × 160 W + 6 × 80 W, 2 × 160 W + 4 × 80 W, 3 × 160 W + 2 × 80 W or 4 × 160 W
Output voltage	100 V or 50 V (screw terminals)
Operating voltage	48 V DC (42–57 V)
Current consumption (48 V)	Standby 0.2 A, operation 0.7 A, max. 20 A
Efficiency	80% (rated power, 1 kHz)

Internal fuses	6 × 7.5 AF-H
Input level	1 V balanced (nominal), max. 3 V
Background music inputs (BGM)	No
Input impedance	22 kΩ
Common-mode rejection	Over 61 dB
Frequency response (−6 dB)	75 Hz–20 kHz
Signal-to-noise ratio	Over 85 dB
Channel crosstalk	Below −70 dB
Connectors	DC input DG58C-A-2P13, audio outputs 3-pole Phoenix 5.08 mm
Indicators	Supply, operation, fault
EN 54 approval	EN 54-16
CPR	1438-CPR-0948
Dimensions	Front panel 482 mm, rear section 445 mm, height 88.5 mm (2U)
Weight	15 kg (net)
Mounting	19-inch rack

Documents

The manufacturer's original documents can be downloaded from the product page (QR code at the top of this sheet).

Datasheet: SMART-PA power amplifiers (Ambient System)
CPR certificate (series): 1438-CPR-0948, smartVES system
Declaration of performance (DoP) (series): smartVES system smart-20230925
EU declaration of conformity (series): smartVES system smartVES-DCE-20231025
Datasheet (series): smartVES voice alarm system (Ambient System)
User manual (series): smartVES voice alarm system

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Up-to-date information and documents: pap.fi/en/tuote/smart-pa8080/