AMBIENT SYSTEM

Ambient System SMART-PA2650E class D power amplifier 2 × 650 W, background music inputs

Product code SMART-PA2650E · Voice alarm systems › Amplifiers and power supplies

2-channel class D power amplifier for the smartVES system, 2 × 650 W. 48 V DC supply for a battery-backed system, 100 V and 50 V outputs, 2U rack enclosure. Background music input for each channel. EN 54-16.

- Approved to EN 54-16, CPR 1438-CPR-0948
- 2 × 650 W, bridged 1 × 1,300 W
- Transformer-isolated class D outputs for 100 V and 50 V lines
- 48 V DC supply from the SMART-PSM48 power management unit
- Background music input (BGM) for each channel, sensitivity adjustment
- Indicators for supply, operation and fault on the front panel

Product description

SMART-PA2650E is a 2-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 650 W. The channels can be bridged, giving outputs of 1 × 1,300 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 E model has a background music input (BGM) for each channel and input sensitivity adjustment. In alarm mode, the background music inputs are muted by shorting the BGM CTRL lines to earth.

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. The model without background music inputs is SMART-PA2650.

Technical data

Product code	SMART-PA2650E
Manufacturer	Ambient System
Product group	Voice alarm systems › Amplifiers and power supplies
Channels and power	2 × 650 W (rated load 15.4 Ω / 200 nF, 1 kHz)
Bridged operation	1 × 1,300 W
Output voltage	100 V or 50 V (screw terminals)

Operating voltage	48 V DC (42–57 V)
Current consumption (48 V)	Standby 0.15 A, operation 0.33 A, max. 38 A
Efficiency	80% (rated power, 1 kHz)
Internal fuses	2 × 15 AF-H, 2 × 7.5 AF-H
Input level	1 V balanced (nominal), max. 3 V
Input level adjustment range	0.95–3 V
Background music inputs (BGM)	2, one per channel
Input impedance	22 kΩ
Common-mode rejection	Over 61 dB
Frequency response (–6 dB)	75 Hz–22 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-pa2650e/