

EST-PA4160B

Power amplifier D-Class 4x160 Watt

Overview

The Amplifiers are designed for perfect integration into the EDWARDS solutions. Thanks to their flexibility, they can also be used for any other Public Address and Voice Evacuation applications. These amplifiers have been developed to meet the specific requirements of the EN 54-16 standard for safety installations.

The EST-PAXXXB is a family of 2U, rackmountable, 8-channel (EST-PA8080B, EST-PA8160B), 4-channel (EST-PA4160B), 2 channel (high power EST-PA2650B) and 1 channel (EST-PA1650B) class-D transformer isolated power amplifiers for 50 V and 100 V distributed loudspeaker systems. Amplifier EST-PA8080B can deliver up to 8 x 80 W, for EST-PA8160B and EST-PA2650B delivering power increases respectively to the 8 x 160 W and 2 x 650 W. In a bridged mode amplifier channels are combined and can deliver 4 x 160 W for EST-PA8080B, 4 x 320 W for EST-PA8160B and 1 x 1300 W for EST-PA2650B. These amplifiers have 48 VDC input which allows to connect with battery backup system for maximum availability and durability in an voice evacuation system.

The EST-PAXXXB amplifiers are powered from external power supply module EST-PS48800 working in a block. The current from block is distributed to individual amplifiers through the "power manager" EST-PSM48 (device includes a battery charger and is in compliance with EN 54-4).



Details

- Front panel indicators include: Supply / Active / Fault
- 100 / 50 V available via terminal blocks at the rear
- Output channels can be linked into 2 x 320 W by daisy-chaining 50 V tapping (input on parallel)
- EST-PAXXXB combines with the EST-PSM48 Power Supply Manager (charger and back-up supply)

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Technical specifications

Electrical

Power supply type	48 VDC
Power consumption	0.18 A (at 48 VDC, Standby) 0.43 A (at 48 VDC, Active) 19 A (at 48 VDC, Max. nominal current)
Operating voltage	42-57 V
DC fuse rating (internal)	2 x 15 AF- H 2 x 7.5 AF- H
Overall power efficiency	80%
nominal DC input max output power at 1 kHz	

Physical

Net weight	13 kg
Shipping weight	14.2 kg
Front panel width	482 mm
Back panel width	445 mm
Height	88.5 mm
Packaging dimensions	150 x 530 x 610 mm (W x H x D)
DC input socket	DG58C-A-2P13
Audio output socket	3 pin PHOENIX 5.08 mm
Nominal output voltage taps	50 / 100 V

Standards & regulation

Standards	EN54-16
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Amplifier

Continuous nominal output power per channel, all channels driven into nominal load at 1 kHz 30°C ambient	160 W 62 Ω / 200 nF
Continuous nominal output power per channel, all channels driven into nominal load at 1 kHz 55°C ambient	TBA
Nominal balanced input level for 100 V output at 1 kHz and nominal load	1 V
Balanced input level trim range for 100 V output at 1 kHz and nominal load *	0.95 – 3 V
Max balanced input level	3 V
Input impedance at 1 kHz	22 kΩ
Input common mode rejection at <1 kHz	> 61 dB
Frequency response (-6 dB)	75 Hz – 20 kHz 62 Ω / 200 nF
S/N ref nominal power at 1 kHz 22 Hz – 22 kHz	> 85 dB 62 Ω / 200 nF
THD power 1 kHz (42 V – 57 V)	< 10%
Crosstalk between channel 50 Hz – 20 kHz nominal load dB	< -70 dB 62 Ω / 200 nF