

50 Watt Amplifier

EVAC50W24V

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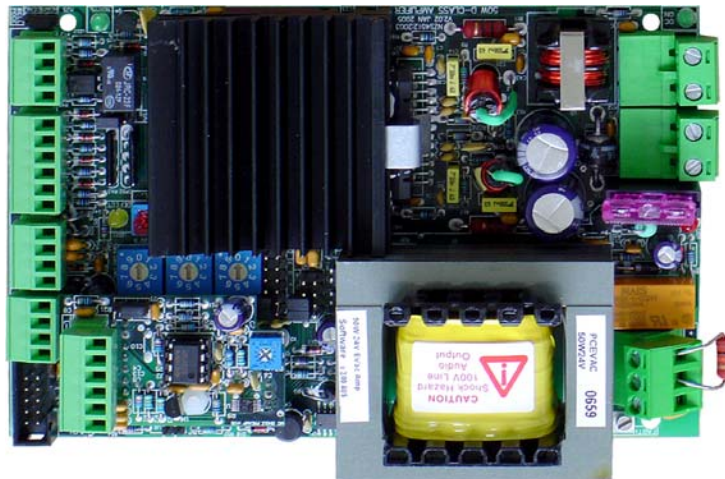
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Product Overview:

The **EVAC50W24V** is one of a range of 100V-Line Amplifiers manufactured by Pertronic Industries

Features:

- Generates the 'Alert' and 'Evacuation' tones with verbal messages as specified by ISO8201 (T3) and/or AS2220
- Any of the standard tones may be replaced with one of 43 custom tones, which may be programmed by using the LED base address dials and program mini-jumpers
- Capable of driving up to 50W (27.4Vdc supply) into connected 100V PA loud speakers
- The 100Vrms output line is overload and short-circuit protected and is monitored by the amplifier circuit with the status transmitted to the panel
- Designed for flexibility of operation. All amplifier operations may be controlled through the connected panel RS485 mimic line, or alternatively, may be controlled through a Warning System input
- May be powered directly from the panel power supply or from a separate 24VDC source
- When not active (100V line monitoring only) the amplifier draws less than 35mA of current
- An optional microphone input board is available which can be used for public address (PA) or 'Fire Microphone' operation



Specifications:

Mechanical:

- Board Dimensions PCB: 150 x 97mm x 50mm (L x W x H)
- Mounting Hole Spacing: 130 x 89mm

Electrical:

- Operating voltage: 20 - 29Vdc, nominal 27.4Vdc
- Quiescent current: 30mA @ 27.4Vdc
- Operating Current: 2.5A @ 27.4Vdc nominal with 50W load
- Power Output: 50W @ 100V line: 27.4Vdc supply – overload and short-circuit protected

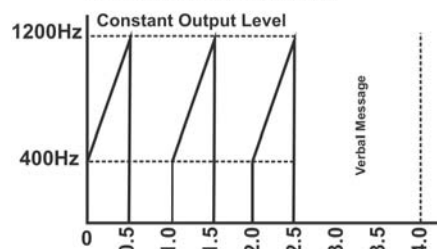
Monitoring:

Fully monitored for open, short circuit or overload (10kΩ, 1W EOL resistor)

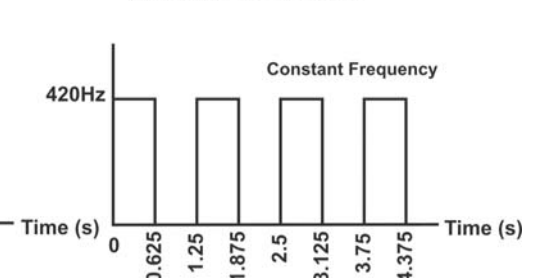
Tones:

47 tones available including Evacuation, Alert tones and voice messages

T3 - Evacuation Tone



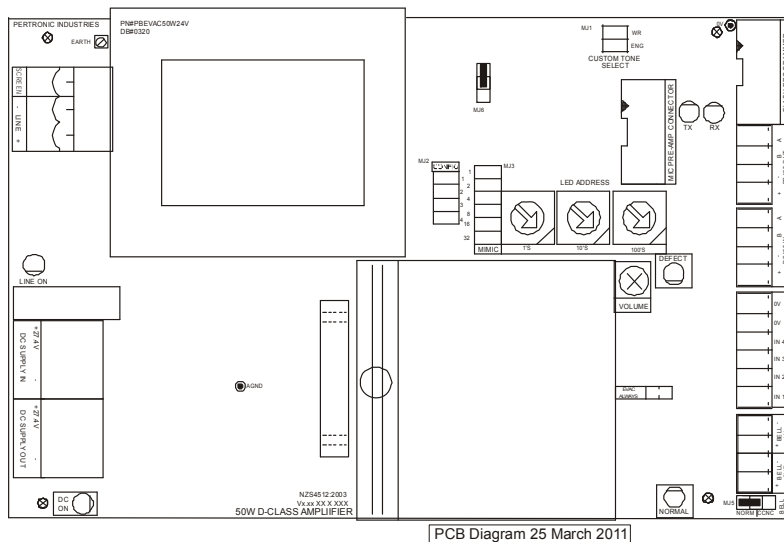
AS2220 - Alert Tone



Operation:

- RS485 Operation:** Addressed as an LED Mimic Display - select address 1 - 8.
Set LED number 'n' for Evacuation operation:
LED number switches n = 1 to 253 - **F100 Panel**; n = 1 to 510 - **F120 Panel**.
- When activated:
LED 'n' will activate the Evacuation Tone.
LED 'n+1' will activate the Alert Tone.
LED 'n+2' will activate the selected Custom Tone.
- Operation of 'Trial Evacuation' or 'Bells On' at the panel will activate the Evacuation tone and message.
Operation of 'BCO' or 'Warning System Isolate' at the panel will silence the amplifier.
When **BELL IN** is activated:
EVAC IN will activate the Evacuation Tone.
ALERT IN will activate the Alert Tone.
CUSTOM IN will activate the selected Custom Tone - these inputs are prioritised.
- BELL OUT** may be connected to the **BELL IN** terminals of other 50W amplifiers.
The last **BELL OUT** terminal of a single or chain of amplifiers is terminated with a 10kΩ EOL resistor.
- Global Controls:**
EVAC SWITCH input: when active, the Evacuation Tone is activated.
EVAC ALWAYS link: when inserted, all amplifier activations will produce the Evacuation Tone.
CUSTOM TONE SELECT jumpers: two jumpers (ENG and WR) used to configure the output tones.
- 100V Line Monitoring:**
100V line monitoring faults are transmitted to the fire alarm panel in two ways:
i) A fault message via the RS485 bus.
ii) Unbalancing the panel Bell circuit, causing a 'Bell' fault at the panel.
A 10kΩ 1W EOL resistor is used as the end-of-line device.
- Fault Conditions:**
(i) DC Power missing.
(ii) DC power off normal.
(iii) 100V 10kΩ EOL fault.
(iv) RS485 Communication fault.
(v) Amplifier overload.
- Indicators:**
(i) **DC ON LED:** turns ON when power is supplied to the amplifier.
(ii) **Fault LED:** Turns ON when a fault occurs.
(iii) **RX LED:** turns ON when the amplifier is polled via the RS485 connection.
(iv) **TX LED:** turns ON when the amplifier replies via the RS485 connection.
(v) **Line ON LED:** turns ON when the amplifier 100Vrms line is activated.

50W Amplifier Layout and Terminals:



Ordering Information:

Description

EVAC Amplifier, 50W 24V
Pre-Amp (Mic I/P) for 50W Amplifier

Part Number

EVAC50W24V-A
EVAC50PREA

PERTRONIC INDUSTRIES PTY LTD

Melbourne

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