



# 20W 24Vdc 100Vrms Line Amplifier

## Product Overview:

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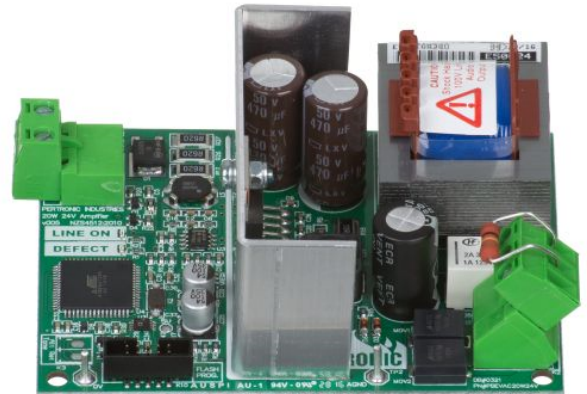
The Pertronic 20W Amplifier (**EVAC20W24V-T3**) is an evacuation amplifier with integral evacuation tone and message generator and fault detection system. It is designed for use in emergency warning systems with supervised 100 Volt Line distribution systems. The amplifier delivers up to 20 Watts of audio power to the 100 Volt line.

The **EVAC20W24V-T3** generates the T3 evacuation tone with a voice message as specified in ISO 8201.

The amplifier is controlled by the BELL output of a fire alarm panel such as the **Pertronic F16e, F100A or F120A**.

When in standby, the 100 Volt line is connected to the BELL circuit. This allows the fire alarm panel to detect short or open circuit faults on the 100 Volt line. The BELL circuit drives a small dc current through the 100 Volt line, which must be terminated with a suitable end of line resistor. It is important to note that every speaker connected to the supervised 100 Volt Line must be specially designed for emergency warning systems, with each speaker incorporating a DC blocking capacitor.

The fault monitoring system also monitors for power supply faults, overload conditions, low power output.



**Pertronic 20W, 24V Amplifier  
EVAC20W24V-T3**

## Features:

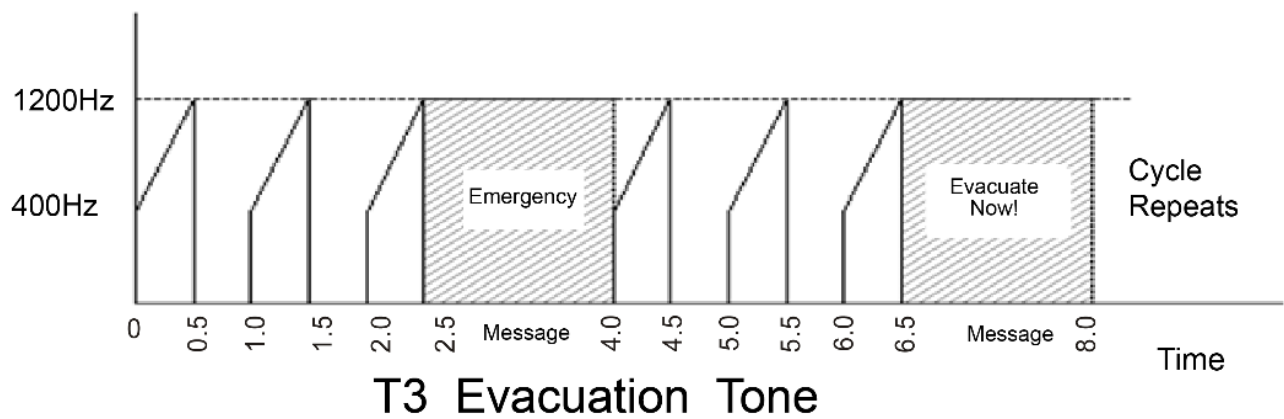
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- » Generates the 'Evacuation' tone with verbal messages as specified by ISO 8201 (T3)
- » Designed for connection to the monitored warning system output of an F16e, F100 or F120 Fire Alarm Panel and is activated when the circuit voltage polarity reverses in the 'Alarm' state
- » In the 'Normal' state, the amplifier draws practically no current (less than 0.2  $\mu$ A) and appears transparent to the Fire Alarm panel
- » The 100 Vrms line is internally connected to, and monitored by the panel's Warning System circuit
- » The amplifier's 100 Vrms line is short-circuit protected and is capable of driving up to 20W (27.4 Vdc supply) into connected 100 Vrms loudspeakers

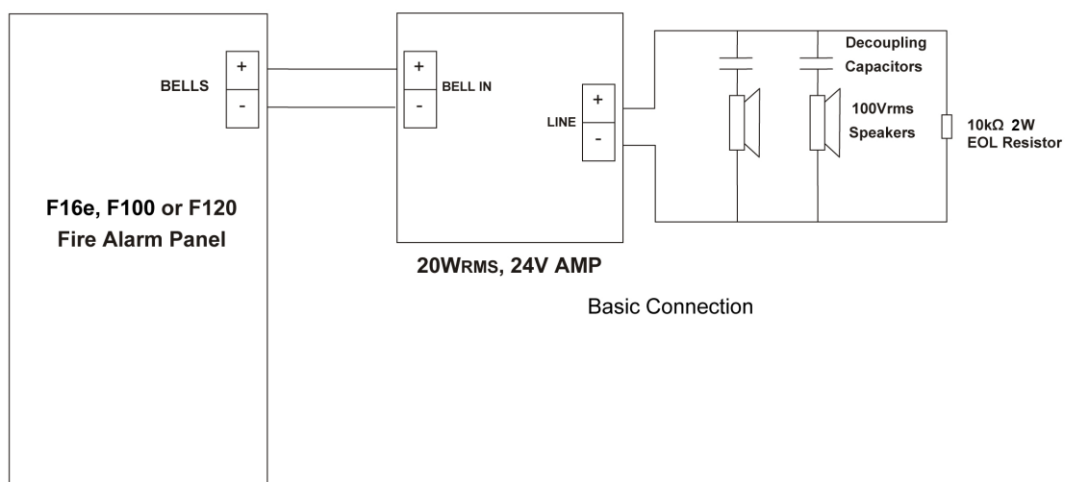
## Specifications:

» PCB Board Dimensions	106 x 77 x 38 mm	L x W x D
» Mounting Hole Spacing	93 x 69 mm	L x W
» Operating Voltage	19.2 to 28.8 Vdc	Reference 27.4 Vdc
» Quiescent Current	0.2 $\mu$ A @ 24 Vdc	
» Operating Current	1.2 A @ 27.4 Vdc	with 20 Wrms load
» Power Output	20 W @ 100 Vrms line	27.4 Vdc supply
» Operating Temperature Range	0 to 30 °C	
» Humidity	10 to 95 % RH (non-condensing)	
» Monitoring	Monitored for open, short-circuit or overload (10 k $\Omega$ , 2 W EOL resistor)	
» Tone	Single Evacuation tone with voice message, compliant to ISO 8201 (T3)	

## T3 Tone Characteristics:



## Connection Diagram:



## Ordering Information:

Product Code	Description
EVAC20W24V-T3	EVAC Amplifier, 20W 24V with T3 Tone, SMD version