

Overview

The EST3 audio amplifiers take full advantage of digital technology. Digital messages generated by the Audio Source Unit (ASU) and live paging messages are multiplexed into eight separate channels transmitted over a single twisted pair of wires. Each zoned amplifier contains integrated de-multiplexing circuitry that allows any one of the eight digital audio channels to place messages or signals on the amplifier's built-in speaker circuit.

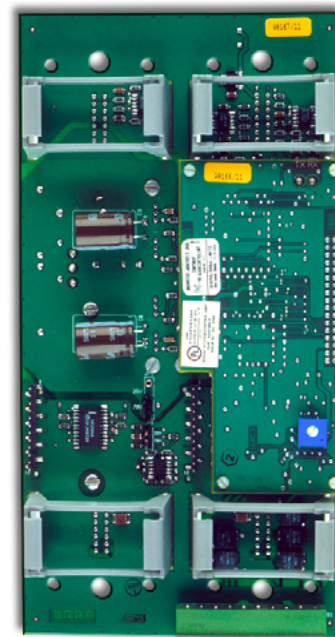
Audio channel selection is network software controlled, and audio amplifiers mount in the same enclosures as other EST3 equipment. Power for the amplifiers comes from standard system power supplies through the local rail. Field wiring connects to removable terminal blocks on the amplifier module. Amplifiers support either 25 V_{RMS} or 70 V_{RMS} power limited speaker circuits. For visual signaling, each 20 or 40 watt amplifier comes standard with one 24 Vdc power limited Notification Appliance Circuit that is ideal for strobe use.

Standard Features

- **Three Sizes Available**
 - 20 Watts
 - 40 Watts
 - 95 Watts
- **Simultaneous eight channel digital audio**
 - Superior sound quality
 - No signal interruptions during paging
- **Speaker circuit built into amplifier**
 - Selectable for 70 or 25 VRMS output
 - Class A (Style Z) or Class B (Style Y) output
 - Power limited
- **3.5 amp 24 Vdc notification appliance circuit on 20 and 40 watt amplifiers**
 - Ideal for strobe signals
 - Class A (Style Z) or Class B (Style Y) output
 - Power limited
- **Network software control of channel selection**
- **Integral backup tone generator**
 - 1 KHz temporal (3-3-3) tone evac
 - 1 KHz 20 PPM tone alert

Zoned Audio Amplifiers

3-ZA20A, 3-ZA20B, 3-ZA40A,
3-ZA40B, 3-ZA95



Specifications

	3-ZA20A	3-ZA20B	3-ZA40A	3-ZA40B	3-ZA95
Agency Listing	UL, ULC, CE				
Environmental	0°C - 49°C (32°F - 120°F) 93% RH, Non-condensing				
Frequency Response	400Hz to 4KHz @ +/- 3dB				
Output Voltage	25 VRMS or 70 VRMS				
THD (distortion)	< 7%				
Wire Size	18 to 12 AWG (1.0 to 2.5 mm ²)				
Internal Tone Generator	1KHz Temporal (3-3-3) Tone (evacuation); 20 PPM (alert)				
SIGA-CC1/2 Support	10 Units, Maximum				
Standby Current	62mA for 20 and 40 watt amps; 64mA for the 3-ZA95 watt amp				
Alarm Current	1120mA	1120mA	2480mA	2480mA	5540mA
Pwr. Ltd. Audio Output Wiring Configuration	Class A or B (Style Z or Y)	Class B (Style Y)	Class A or B (Style Z or Y)	Class B (Style Y)	Class A or B (Style Z or Y)
EOL Resistor	15K Ohms in Class B	15K Ohms	15K Ohms in Class B	15K Ohms	15K Ohms in Class B
Pwr. Ltd. 24 Vdc NAC Wiring Configuration	Class A or B (Style Z or Y)	Class B (Style Y)	Class A or B (Style Z or Y)	Class B (Style Y)	N/A
Line Resistance, Max.*	50 Ohms, Max.	50 Ohms, Max.	50 Ohms, Max.	50 Ohms, Max.	N/A
EOL Resistor Line Capacitance, Max	N/A	15 K Ohms	N/A	15K Ohms	N/A
	0.33µF	0.33µF	0.33µF	0.33µF	
Space Requirements	1 LRM Space				2 LRM Spaces

Maximum Speaker Circuit Distance at 0.5 dB loss*

70 VRMS Output	3-ZA20A	3-ZA20B	3-ZA40A	3-ZA40B	3-ZA95
#12 AWG (3.2 Ohm/1000 ft pair)	4,536 ft (1,382 m)		2,268 ft (691 m)		955 ft (290 m)
#14 AWG (5.2 Ohm/1000 ft pair)	2,792 ft (850 m)		1,396 ft (425 m)		588 ft (179 m)
#16 AWG (8.0 Ohm/1000 ft pair)	1,815 ft (553 m)		907 ft (276 m)		382 ft (116 m)
#18 AWG (13 Ohm/1000 ft pair)	1,117 ft (340 m)		558 ft (170 m)		235 ft (71 m)

25 VRMS Output	3-ZA20A	3-ZA20B	3-ZA40A	3-ZA40B	3-ZA95
#12 AWG (3.2 Ohm/1000 ft pair)	579 ft (176 m)		289 ft (88 m)		122 ft (37 m)
#14 AWG (5.2 Ohm/1000 ft pair)	356 ft (108 m)		178 ft (54 m)		75 ft (22 m)
#16 AWG (8.0 Ohm/1000 ft pair)	231 ft (70 m)		116 ft (35 m)		49 ft (14 m)
#18 AWG (13 Ohm/1000 ft pair)	142 ft (43 m)		71 ft (21 m)		Not supported by 18 AWG

* Refer to product manual for wire run calculations.

Ordering Information

Catalog Number	Description	Ship Wt., lb. (kg)
3-ZA20A	20 Watt Zoned Amplifier w/Class A/B (Style Z/Y) Audio & Class A/B (Style Z/Y) 24 VDC outputs	1.55 (0.7)
3-ZA20B	20 Watt Zoned Amplifier w/Class B (Style Y) Audio & Class B (Style Y) 24 VDC outputs	1.55 (0.7)
3-ZA40A	40 Watt Zoned Amplifier w/Class A/B (Style Z/Y) Audio & Class A/B (Style Z/Y) 24 VDC outputs	1.55 (0.7)
3-ZA40B	40 Watt Zoned Amplifier w/Class B (Style Y) Audio & Class B (Style Y) 24 VDC outputs	1.55 (0.7)
3-ZA95	95 Watt Zoned Amplifier w/Class A/B (Style Z/Y) Audio output	3.0 (1.5)

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