AM-50 Series Amplifiers

50 Watt Digital Amplifiers

General
The Gamewell-FCI, AM-50 Series amplifiers are a 50 watt, digital, switching power amplifier. The following lists the two types of AM-50 Series amplifiers that may be ordered.

• The AM-50-25 amplifier produces 25 V_{RMS} audio output.
• The AM-50-70 amplifier produces 70.7 V_{RMS} audio output.

The amplifiers are components of the following E3 Series® Systems.

• E3 Series Expandable Emergency Evacuation System
• E3 Series Combined Fire and Mass Notification System
• E3 Series Broadband Voice Evacuation System

Each AM-50 Series amplifier provides two speaker circuits that can be wired Style Y (Class "B") or Style Z (Class "A"). The terminal connections can accommodate up to 12 AWG, twisted-pair, shielded wire. Both speaker circuits produce a combined total of 50 watts of power. The 50 watts of power can be divided between the two integral Class A/B speaker circuits. The two speaker circuits may be individually activated and supervised by an INI-VGX Transponder Voice Gateway.

The AM-50 Series amplifier can be programmed to broadcast sixteen messages generated from its local INI-VGX Voice Gateway. In addition, the AM-50 Series amplifiers produce superior clarity for intelligible LIVE voice paging.

When the selected System Sensor, speakers are used with the Manufacturer’s 520 Hz audiophile, the E3 Series® System is compliant with UL Standard 464 Low Frequency requirements.

Installation
As many as four AM-50 Series amplifiers can be installed in the following cabinets when supervised and controlled by an INI-VGX Voice Gateway.

• Cabinet B, INX-CAB-B
• Cabinet C, INX-CAB-C
• Cabinet D, INX-CAB-D

WARNING: AM-50 Series Amplifiers Node Restriction:
The INI-VGX can support up to four AM-50 Series amplifiers with the same output voltage. However, you cannot wire an AM-50-25 amplifier and an AM-50-70 amplifier to the same INI-VGX Voice Gateway Node between the four amplifiers, max. of 150 watts are allowed.

The AM-50 Series amplifiers can be installed using the AM-50 Extender Plate whenever the E3 Series control panel is used in conjunction with the Autonomous Control Unit (ACU) of the E3 Series Combined Fire and Mass Notification System.

FEATURES & BENEFITS

• Listed under UL® Standard 864, 9th Edition
• Listed under UL Standard UL2572 for Mass Notification
• Complies with UL Standard 464 for 520 Hz Low Frequency
• Provides digital, switching amplifier technology
• Produces 50 watts of digital power
• Includes 2 speaker circuits, wired Style Y (Class B) or Style Z (Class A)
• Up to 4 AM-50 Series amplifiers with the same output voltage can be controlled by the INI-VGX voice gateway
**AM-50 Series Amplifiers**

**Technical Specifications**

**SPECIFICATIONS**

**AM-50-25 Amplifier**
- **Operating Voltage:** 27.3 to 20.4 VDC
- **Operating Current:** 0.086 amp normal standby
- **Alarm Current:** 2.206 amp max. alarm @ 50 Watt
- **Audio Output:** 50 watts max. @ 25 VRMS

**AM-50-70 Amplifier**
- **Operating Voltage:** 27.3 to 20.4 VDC
- **Operating Current:** 0.049 amp normal standby
- **Alarm Current:** 2.30 amp max. alarm @ 50 Watt
- **Audio Output:** 50 watts max. @ 70.7 VRMS

**AM-50 Series Amplifiers**
- **Relative Humidity:** 0 to 93% max. (non-condensing) at 90°F (32°C)
- **Operating Temperature:** 32° to 120°F (0° to 49°C)
- **Dimensions:** 7 1/2" W x 3 1/2" H x 1 1/4" D (19 W x 9 H x 3 D cm)

**TEMPERATURE AND HUMIDITY RANGES**

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

**Ordering Information**

1100-0456: AM-50, 25VRMS audio output, 50 watt amplifier
AM-50-70: AM-50, 70.7VRMS audio output, 50 watt amplifier

**STANDARDS**

The AM-50 Series amplifiers are designed to comply with the following standards:

- **UL Standards:** 864 9th Edition
  2572 for Mass Notification
  454 Low Frequency

**AGENCY LISTINGS AND APPROVALS**

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult the factory for the latest listing status.

- **UL Listed:** S1869
- **FM Approved:** 3017416
- **MEA Approved, Fire Dept. of New York:** COA# 6077
- **CSFM:** 7165-1703-0125
- **City of Chicago:** Class 1, Class 2, High Rise
- **City of Denver Approved**
- **ISO 9001 Certification**

For more information

Learn more about Gamewell-FCI’s AM-50 Series Amplifiers and other products available by visiting www.Gamewell-FCI.com

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