



DA-250F / DA-250FH

Power Amplifiers

Compact dimensions and high power for
any installed sound application.

Innovative circuit design and superb pe

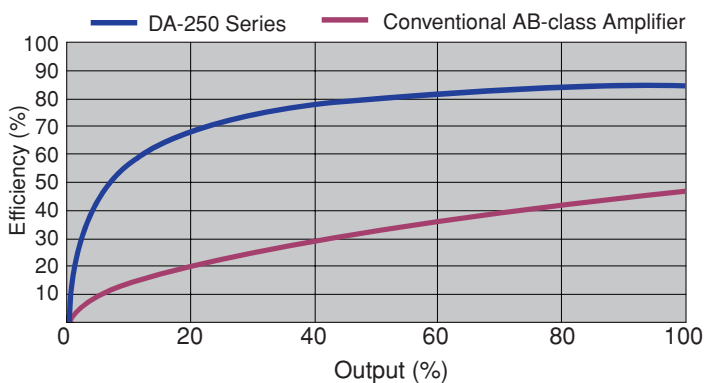


Introducing TOA's DA-250F and DA-250FH power amplifiers. Featuring multiple high power outputs, advanced digital technology and compact, lightweight design, these versatile amplifiers are perfect solutions for virtually any installed sound application.

High-efficiency amplifier topology.

TOA's proprietary amplifier topology achieves approximately 85% efficiency in AC mains to output power conversion. The high-efficiency, compact design operates at much lower temperature levels eliminating the need for large heat sinks.

Efficiency vs Output



Amplifier design optimized for installed sound applications

The DA-250F and 250FH are specifically designed to produce high power with high efficiency. Along with switching mode power supplies, the amplifiers also offer the high power advantages of Pulse Width Modulation (PWM) which requires much smaller power supply voltage than conventional amplifier designs.

Two configurations suit different applications.

Along with the low impedance version DA-250F, a high impedance version DA-250FH, is available for 70/100 volt applications.

Easily accommodates high power requirements.

Both amplifiers can be conveniently bridged* (Channels 1/2 and 3/4 bridgeable), increasing the output from 250W into 4 channels up to 500W into 2 channels.

*without DA-250FH 220 – 240V AC version.

Versatile enough for any venue.

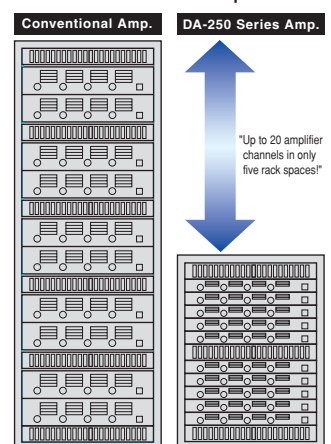
Both amplifiers are well-suited for a wide variety of installed sound requirements. The DA-250FH is ideal for venues ranging from exhibition halls, sports facilities and gymnasiums to houses of worship, meeting halls and many other locations. The DA-250F proves ideal for sound reinforcement in multi-zone applications such as presentation and press conference rooms as well as restaurants and similarly sized locations.

Compact and lightweight

The powerful yet compact DA-250F and DA-250FH amplifiers occupy only one standard rack space and weight only 6.6kg (14.6 lbs)* allowing flexible installation options.

For complex installed sound applications, amplifiers can be stacked together, requiring only one perforated airflow panel between every 5 units. The amplifiers are also equipped with dual low-noise constant speed fans to ensure adequate cooling in demanding environments and extend operational reliability and service life.

*220 – 240V AC version: 6.8kg (15.0 lbs)



Performance that satisfy any requirement.



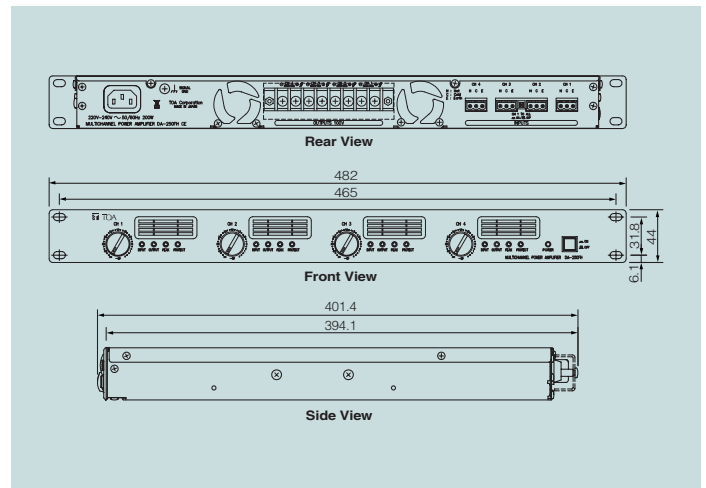
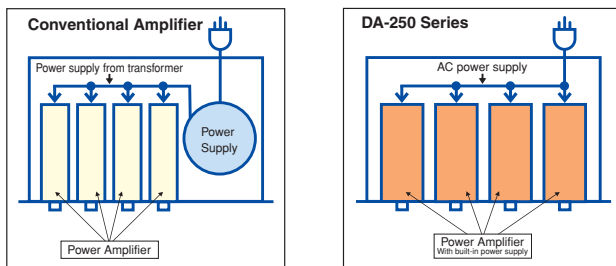
DA-250FH



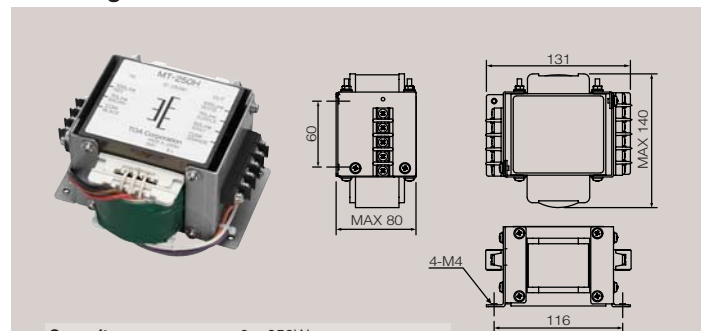
DA-250F

Enhanced reliability for trouble-free operation.

Both amplifiers have been over-engineered to provide long term operation under demanding conditions. Fully independent power supplies for each of the 4 amplifier channels enhances reliability and allows uninterrupted operation in the event a channel should fail. This is a significant advantage in remote installations where service access may be difficult. Each unit also incorporates TOA's no-compromise build quality to minimize any problem as well as comprehensive protection circuitry.



MT-250H Matching Transformer



| | |
|-----------------------------|---|
| Capacity: | 0 - 250W |
| Primary impedance: | 100V line : 40Ω/66.6Ω 70V line : 19.6Ω/32.6Ω |
| Secondary impedance: | 100V line : 40Ω/66.6Ω 70V line : 19.6Ω/32.6Ω 50V line : 10Ω/16.6Ω |
| Frequency response: | 30Hz - 18kHz(+0dB, -3dB) |
| Connection terminal: | M4 screw terminal, distance between barriers: 8.1mm |
| Weight: | 3.7kg |

Comprehensive protection circuitry.

Advanced protection circuitry monitors voltage, current and thermal levels and disables output to minimize potential damage from overloads, short circuit, DC offset or overheating.

Control cover eliminates tampering.

Each amplifier includes attenuator security covers to prevent control settings from unauthorized adjustments.

SPECIFICATIONS

| Model | DA-250F | | DA-250FH | |
|---|---|--|---|-------------------------------|
| | 120V AC Version | 220 – 240V AC Version | 120V AC Version | 220 – 240V AC Version |
| Number of channels | 4 | 4 | 4 | 4 |
| Total output all channel driven | 1,000W (1kHz, 4Ω) 680W (1kHz, 8Ω) | 1,000W (1kHz, 4Ω) 680W (1kHz, 8Ω) | 1,000W (1kHz, 19.6Ω) | 1,000W (1kHz, 40Ω) |
| Output voltage per channel | 31.6V (1kHz, 4Ω) 36.9V (1kHz, 8Ω) | 31.6V (1kHz, 4Ω) 36.9V (1kHz, 8Ω) | 70V (1kHz, 19.6Ω) | 100V (1kHz, 40Ω) |
| Output current per channel | 7.9A (1kHz, 4Ω) 4.6A (1kHz, 8Ω) | 7.9A (1kHz, 4Ω) 4.6A (1kHz, 8Ω) | 3.6A (1kHz, 19.6Ω) | 2.5A (1kHz, 40Ω) |
| Power output 8 ohms per channel 4 ohms per channel 16 ohms bridged 8 ohms bridged Hi-Z: 70V/100V per channel Hi-Z: 140V bridged, per channel | 170W 250W 340W 500W — — | 170W 250W 340W 500W — — | — — — — 250W 500W | — — — — 250W — |
| Power consumption* Idle power consumption | 56W, 1.0A | 48W, 0.3A | 58W, 1.0A | 75W, 0.5A |
| 1/8 Power 8 ohms Pink noise | 183W, 3.0A | 167W, 1.2A | — | — |
| 4 ohms | 257W, 4.2A | 248W, 1.6A | — | — |
| 70 Volts | — | — | 265W, 4.1A | — |
| 100 Volts | — | — | — | 270W, 1.9A |
| 1/3 Power 8 ohms | 362W, 5.4A | 349W, 2.4A | — | — |
| 4 ohms | 597W, 8.6A | 511W, 3.7A | — | — |
| 70 Volts | — | — | 609W, 8.5A | — |
| 100 Volts | — | — | — | 491W, 3.5A |
| 1/8 Power 8 ohms 1kHz | 152W, 2.5A | 143W, 1.0A | — | — |
| 4 ohms | 219W, 3.5A | 202W, 1.4A | — | — |
| 70 Volts | — | — | 224W, 3.6A | — |
| 100 Volts | — | — | — | 230W, 1.6A |
| 1/3 Power 8 ohms | 314W, 4.7A | 284W, 1.9A | — | — |
| 4 ohms | 507W, 7.3A | 437W, 3.0A | — | — |
| 70 Volts | — | — | 499W, 7.2A | — |
| 100 Volts | — | — | — | 443W, 3.0A |
| Frequency response | 20Hz – 20kHz, ±1dB | 20Hz – 20kHz, ±1dB | 20Hz – 20kHz, ±1dB (HPF OFF) 50Hz – 20kHz, -3/+0dB (HPF ON) | 50Hz – 20kHz, -3dB, +0dB |
| Total harmonic distortion (THD) (1kHz) | 0.1 % | | 0.1 % | |
| S/N ratio (A weighted) | 100dB | | 100dB | |
| Crosstalk at 10kHz (A weighted) | 70dB | | 70dB | |
| DC offset* | ±5mV | | ±5mV | |
| Voltage gain* | 29.5dB | | 35.1dB | |
| Damping factor* | 100 | | 120 | |
| Inputs Input impedance Input sensitivity Input clipping | 10kΩ (unbalanced), 20kΩ (balanced) +4dB (1.23V) 14V (25.1dBu) | | 10kΩ (unbalanced), 20kΩ (balanced) +4dB (1.23V) 14V (25.1dBu) | |
| Front panel Gain controls Indicators per channel: Input Output Peak Protect Power-On | 30 position detent Green LED Yellow LED Red LED Red LED Blue LED | | 30 position detent Green LED Yellow LED Red LED Red LED Blue LED | |
| Rear panel Input connectors Speaker output | Detachable Euro style terminal block (electrically balanced) Screw terminal (M4). Accept AWG14-22 | | Detachable Euro style connector (electrically balanced) Screw terminal (M4). Accept AWG14-22 | |
| Protection circuit Amplifier section Power supply section | DC output, overheat protection, load shorting, overload current, maximum output Overheat protection, AC rush current | | | |
| Cooling | Continuously constant speed fan with front-to-rear airflow, 50,000 hours life time | | | |
| Power requirement | AC mains, 50/60Hz | | | |
| Operating Temperature | -10°C to +40°C | | | |
| Operating Humidity | Under 90% RH (no condensation) | | | |
| Dimensions (W × H × D) | 482mm (19") × 44mm (1.7") × 401mm (15.8") (EIA Standard 19-inch rack mount width) | | | |
| Weight | 6.6kg (14.6 lbs) | 6.8kg (15.0 lbs) | 6.6kg (14.6 lbs) | 6.8kg (15.0 lbs) |
| Finish | Panel: Aluminum, alumite process, black Case: Plated steel sheet | | | |
| Accessory | Euro style terminal block connector (3-pin) × 4, Volume control cover × 4 | | | |
| Option | — | | Matching transformer: MT-250H | |

0dB=0.775Vrms
*Typical data



TOA Corporation
www.toa.jp

Specifications are subject to change without notice.
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