

# MDA-KEM Series



## Install Amps



wide range of environments, including hotels, restaurants, arenas, houses of worship, bars, schools, and more. These amplifiers are designed to meet the demands of integrators, seeking reliability, flexibility, and advanced features at an affordable price point, making them an ideal choice for diverse audio applications. At its core lies MARANI's innovative integration of signal processing and power control into a unified system, ensuring seamless harmony between DSP processing and power delivery. This approach optimizes sound reproduction, enhances system efficiency, and protects the power stage while maintaining signal integrity. The MDA-KEM Series is a powerful solution for modern fixed installations.

## Features

- Exclusive MARANI Technology
- Proprietary MIR filtering technology (no phase distortion)
- Advanced DSP processing at 48 kHz
- Dante and Analog Inputs
- Sleep and Standby Mode
- Power Save
- Integrated AEQ room equalization
- Flexible Routing Matrices
- Up to 512 Taps FIR filter
- RMS compressor on each output channel
- Low distortion Peak Limiter on output channels
- Dual Ethernet and DANTE networking
- Simultaneous control of 128 networked units
- Grouping with control of gain, mute, PEQ, and polarity
- Remote firmware update capability
- Android App for Remote Control
- Managed through our MARANI Control software

## Output Power

Models	MDA2 1.2KEM	MDA2 2.4KEM	MDA2 4KEM	MDA4 1.2KEM	MDA4 2.4KEM	MDA4 4KEM
N. of Ch.	2			4		
Watts · 220 V						
8 Ohm	620	1250	1300	210	360	760
4 Ohm	610	1250	2000	300	630	1050
2 Ohm	-	-	-	310	770	-
Watts · 110 V						
8 Ohm	620	1250	1300	210	360	760
4 Ohm	640	1000	2100	300	660	1050
2 Ohm	-	-	-	310	740	-
Watts · Hi-Z 70/100 V						
70 V	620	1250	2000	-	-	-
100 V	-	1250	1270	-	-	-
Watts · Total Output						
220 V	1200	2400	4000	1200	2400	4000
110 V	1200	2400	4000	1200	2400	4000



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The amplifier operates within a mains voltage range of 90 to 260 VAC and achieves remarkably low distortion levels of <0.03% THD, ensuring exceptional audio fidelity. With a power factor exceeding 0.96 and an efficiency greater than 87%, it stands out as both effective and energy-efficient. Robust protection systems are implemented to safeguard against DC faults, high-frequency interference, and thermal risks. User-friendly features include 50 customizable presets, manufacturer/user passwords for enhanced security, independent selectable output power for each channel, direct 70/100 V Drive, Power Save, Android app for remote control, and a latency link that automatically adjusts output latency when using FIR filters.

### DSP

#### Input

- Signal noise generator
- Input routing on processing channels
- Gain, Multe, and Polarity
- Noise Gate and Dynamic Loudness
- PEQ Filters
- Input Channels Link

#### Output

- Crossover Filters: MIR/IIR/FIR
- Output IIR EQ
- Up to 512 Taps FIR filter
- RMS Compressor
- Peak Limiter
- Delay up to 40 ms

#### Monitoring

- Standby and Sleep Mode
- Remote firmware update
- Standby, Signal, Limiter, Power Save
- Speaker Driver indicators
- Amplifier protections indicator

### Specifications CEA-2006/409A

Models	MDA2 1.2KEM	MDA4 1.2KEM	MDA2 2.4KEM	MDA4 2.4KEM	MDA2 4KEM	MDA4 4KEM
N. of Ch.	2	4	2	4	2	4
Total Power	1200	1200	2400	2400	4000	4000
8 Ω · 220 / 110 V	620	210	1250	360	1300 / 1270	760
4 Ω · 220 / 110 V	610	300	1250 / 1000	630 / 660	2000 / 2100	1050
2 Ω · 220 / 110 V	-	310	-	770 / 740	-	-
Hi-Z 70V	620	-	1250	-	2000	-
Hi-Z 100V	-	-	1250	-	1980	-
Max Voltage (Vrms)	70.43	41	100	53.67	102	78
Connection Type	TCP/IP (2x RJ45 port for daisy chain), USB, Dante (Prim. & Sec.)					
W x H x D	482 x 44 (1U) x 355 mm			482 x (2U) x 370 mm		
Weight	5 kg / 11 lb			8.5 kg / 18.7 lb		