

# FUSION RPS-501

## REGENERATIVE POWER SUPPLY

**Pure Power. Pure Sound.**

Fully linear regenerated AC power for high-end HiFi systems.



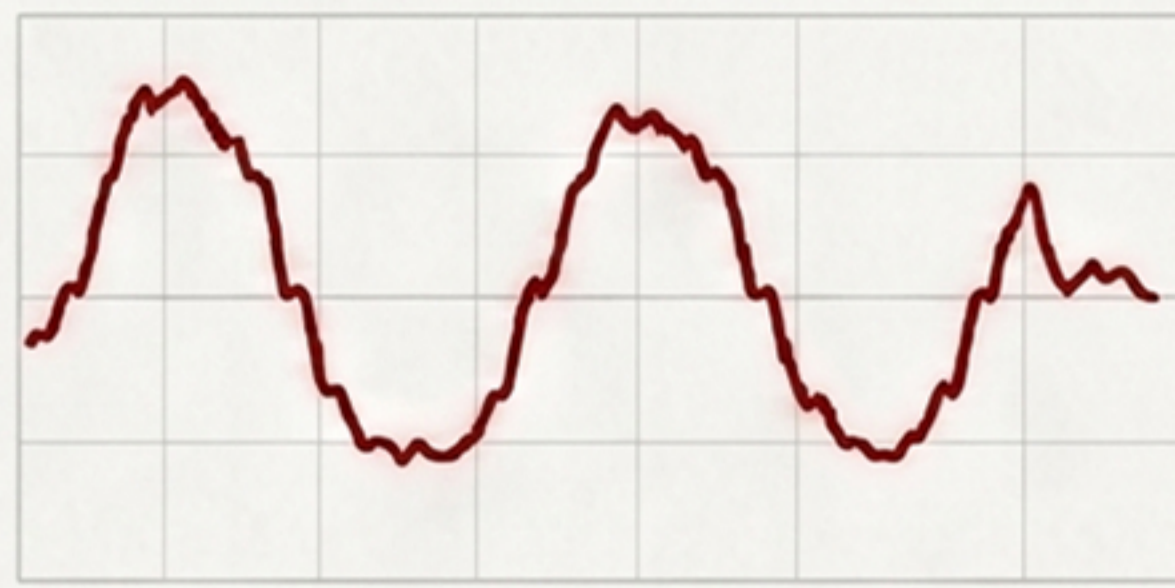
### THE PROBLEM: DIRTY POWER

Modern AC power is polluted by:

- Switching power supplies
- LED lighting
- Household electronics

This causes:

- Distorted waveform
- High harmonic noise (THD up to 2.86%)
- Reduced clarity, dynamics and performance

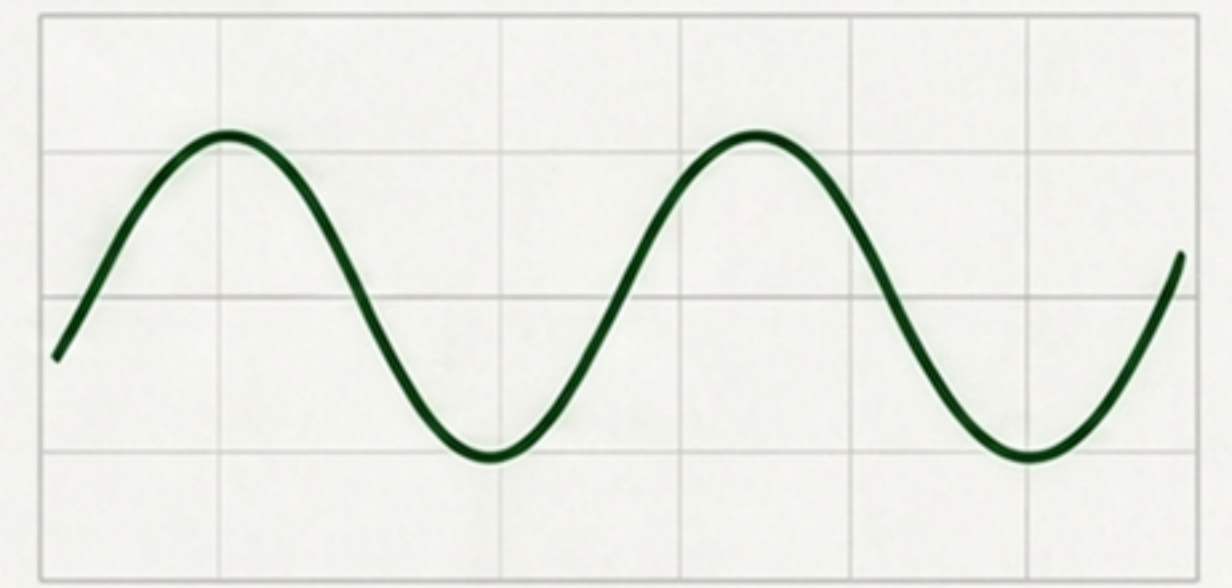


Distorted AC Waveform  
(Typical Mains Power)

### THE SOLUTION: TRUE REGENERATION

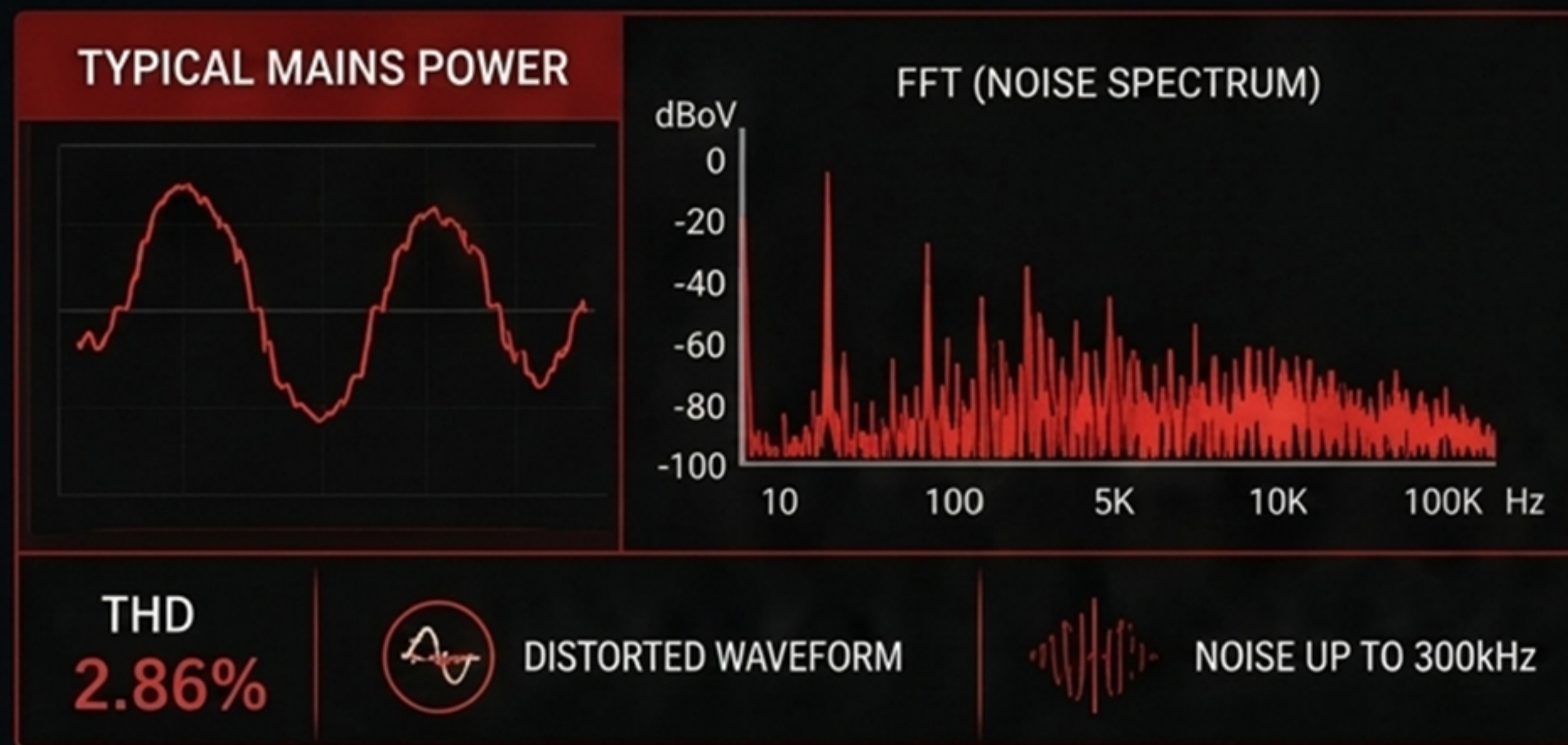
The RPS-501 completely rebuilds the AC waveform using:

- ✓ 100% Linear Power Conversion
- ✓ No switching noise
- ✓ Ultra-low distortion

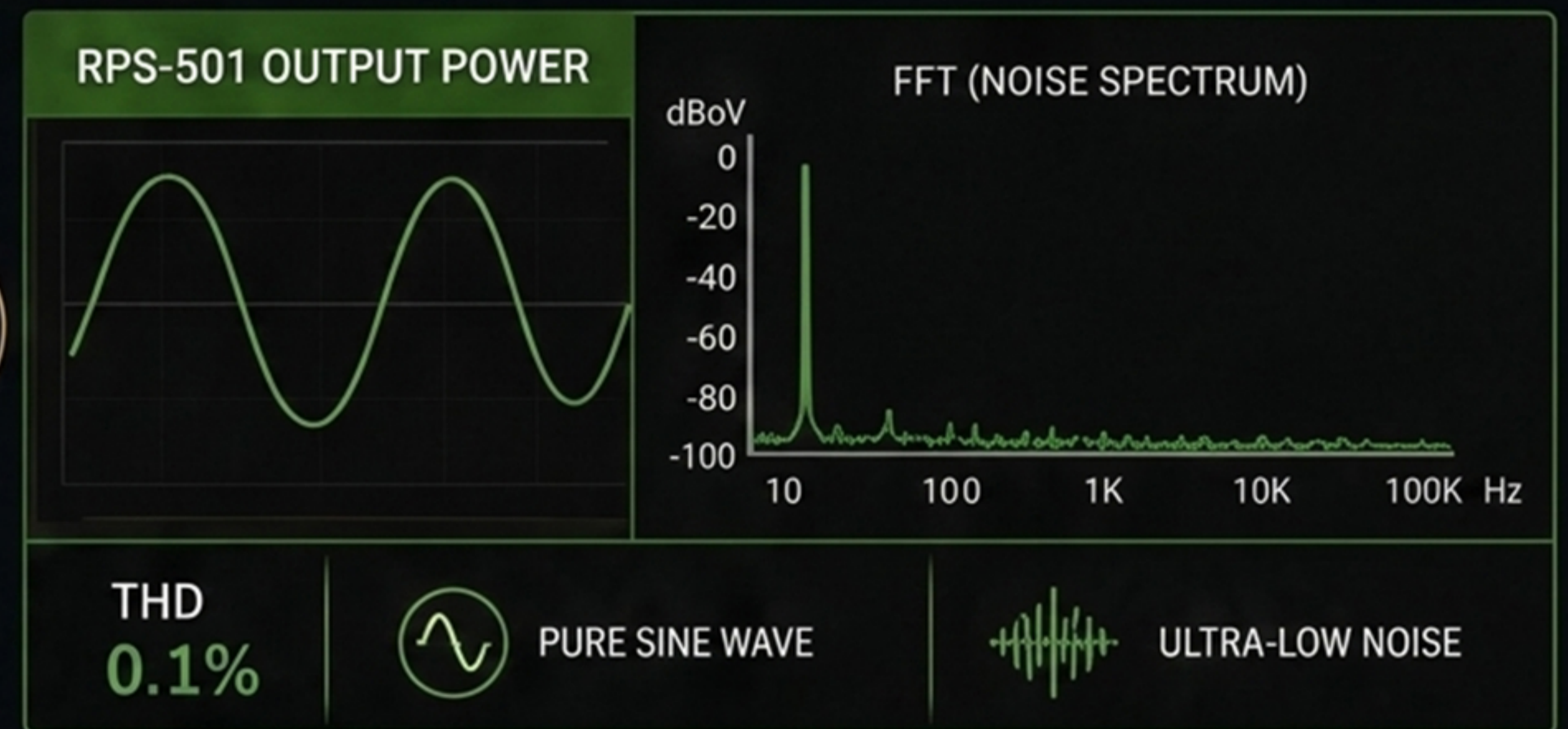


Pure Sine Wave  
(RPS-501 Output)

### BEFORE vs AFTER



VS



### WHAT YOU WILL HEAR

- BLACKER BACKGROUND**  
Lower noise floor give you quieter silence
- MORE DETAIL**  
Micro-details emerge with greater clarity
- BETTER SEPARATION**  
Instruments are steely placed in the soundstage
- IMPROVED DYNAMICS**  
More natured, Impactful and engaging sound



### FEATURES

#### INPUT FEATURES

- 198VAC-260VAC, 50-60Hz.
- 8 steps automatic continues monitor input voltage selection.
- Over current protection by MCB (Mini Circuit Breaker).
- Over / under voltage protection monitor by Micro Processor.
- Soft start control by Micro Processor.
- Zero crossing detection.
- MPS IEC Inlet.

#### OUTPUT FEATURES

- 230VAC +/- 5%.
- Total 500W (250W) power output.
- Selectable 50 / 60 Hz
- Pure Sine wave.
- THD better than 0.2%.
- Micro Processor based over current and voltage, under voltage monitoring system.
- MPS America Standard high performance duplex Receptacles X 4.

### TECHNICAL EXPLANATION

#### THD (Total Harmonic Distortion)

THD shows how much a waveform deviates from a perfect sine wave.

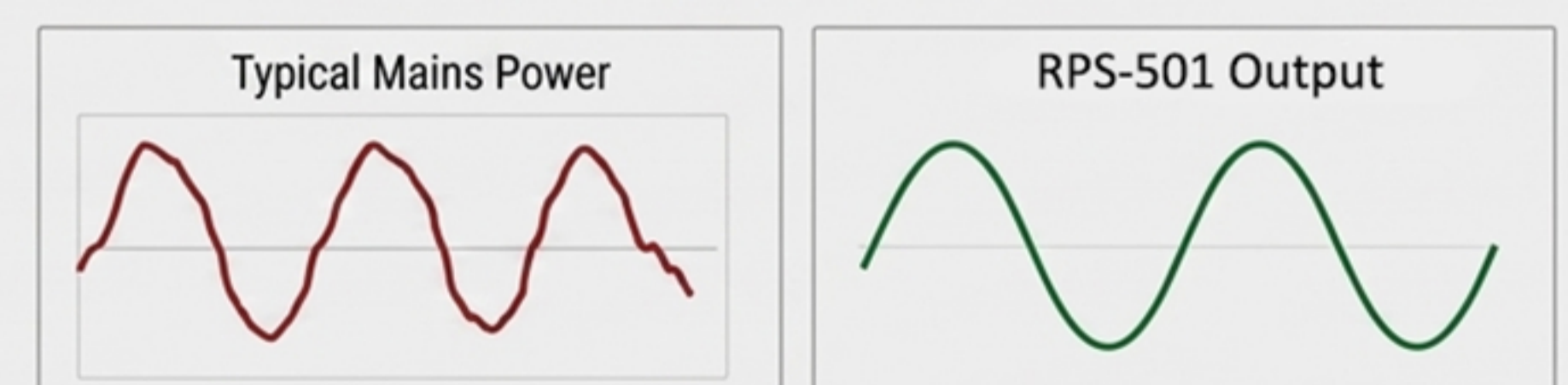
$$THD = \frac{\sqrt{V_2^2 + V_3^2 + V_4^2 + \dots + V_n^2}}{V_1}$$

Where:

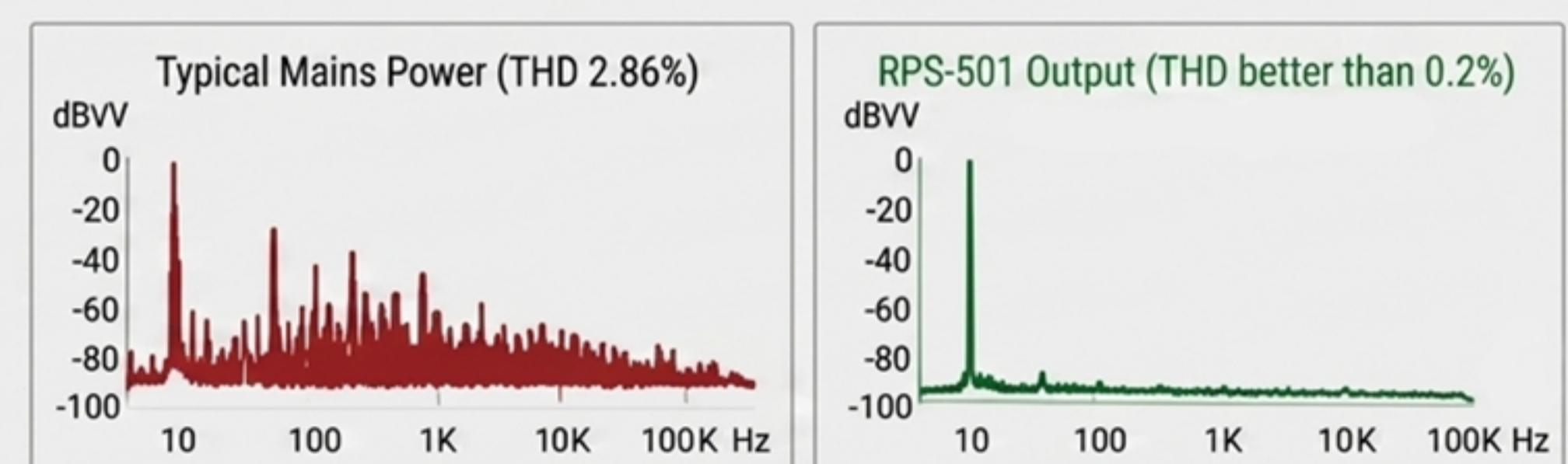
$V_1$  = Fundamental (50Hz or 60Hz)  
 $V_2, V_3, \dots$  = Harmonic components

Lower THD = cleaner, more stable power.

#### WAVEFORM COMPARISON



#### FFT (NOISE SPECTRUM) COMPARISON



### SPECIFICATIONS: RPS-501 (RPS-251)

#### Input

- 198VAC-260VAC, 50-60Hz.
- 8 steps automatic continues monitor input voltage selection.
- Over current protection by MCB (Mini Circuit Breaker).
- Over / under voltage protection monitor by Micro Processor.
- Soft start control by Micro Processor.
- Zero crossing detection.
- MPS IEC Inlet.

#### Output

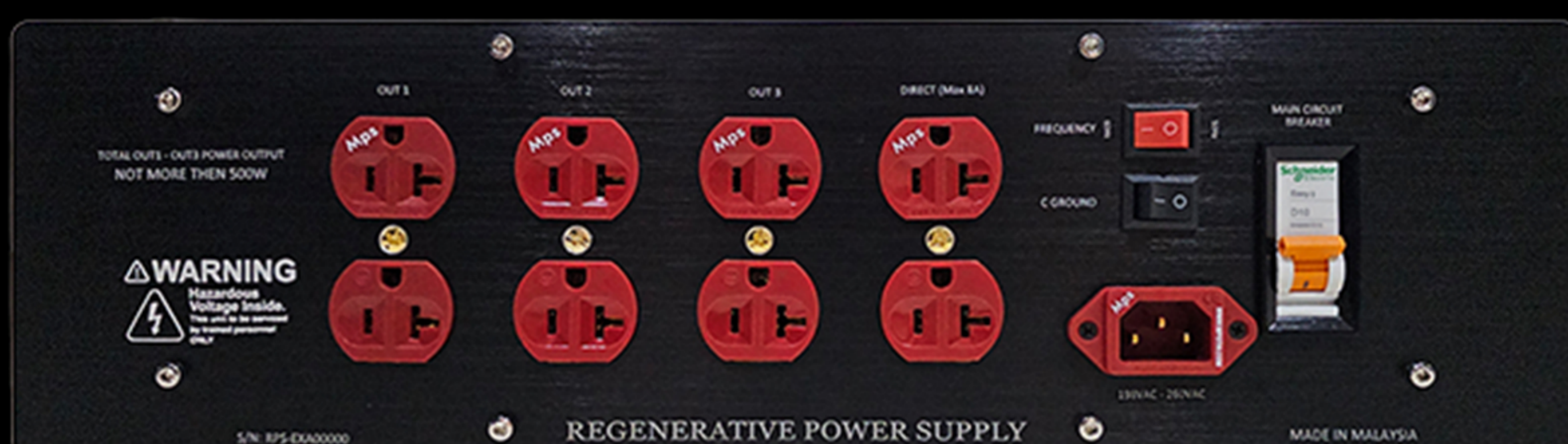
- 230VAC +/- 5%.
- Total 500W (250W) power output.
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#### Size

- 432mm x 318mm x 120mm (W x D x H)

#### Weight

- 23Kg (17Kg)



### SYSTEM SETUP EXAMPLE



**RPS-501**  
(RPS-251)

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<https://www.fusion-audio.net>