

hi-res microelectronics by...

Red Rocks Audio



imPULSE SMPS6060PFC

SWICHTING MODE POWER SUPPLY

The imPULSE SMPS6060-PFC power supply is designed to power the different imPULSE audio series amplification modules, so we can connect different types of amplifiers using a single supply.

The imPULSE SMPS6060-PFC efficiency is very high, so we can get a high performance in a very short area.

It is a switching quasi-resonant supply working in half-bridge mode. It delivers a 1000 watts sustained output and a 2000W peak output thanks to the use of a tuned circuit at the output. This circuit makes the waveform of the signal current that runs through the power transistors sinusoidal and not square as usual. This way, we get a very high efficiency so the transistors must dissipate much less heat.

The oscillation frequency is about 125kHz and the circuit ensures a soft start at turning on to prevent false triggering of external fuses and circuit breakers .

It has a protection against overcurrent based in an output current real-time reading. Any anomaly produces a silent supply turn-off , which rearms automatically without user intervention.

The imPULSE SMPS6060-PFC delivers two output voltages: + / - 75V for imPULSE D-1000 modules and + / -30V for imPULSE D-200 modules. It also has an + / -15V -1A output for auxiliar circuits, DSP processors ... And a 12V - 1A dedicated output for external fans.

The active PFC (Power Factor Correction) circuit at the A.C. input keeps the radiation produced by the circuitry under the specification and regulation levels, and provides a better voltage stabilization in case of fluctuations in the mains supply.

Applications:

- Self-amplified audio systems powering
- Amplified racks powering

Specifications:

- Minimum input voltage: 100V A.C.
- Maximum input voltage: 265V A.C.
- Line Freq: 50-60 Hz
- Output voltages: + / - 75V, + / -30V, + / -15V
- Sustained power: 1000W
- Peak power: 2000W
- Weight: 1.5Kg.
- Size: 174mm (W) x 129mm (L) x 65mm (H)
- Power Factor Correction: YES
- Power Factor Min: 0.90
- Assembled using lead-free SMD components (ROHS regulation)



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