

Application note



Subject:

**Compact power supply design
for semiconductor oven
equipment**

Industry:

Semiconductors

Product:

SPPM Enclosed series

Customer:

OEMs

CUSTOMER ISSUE

Semiconductors are widely used across electrical and electronic equipment, making this sector highly dynamic and continuously evolving.

As demand grows, ensuring long-term operational quality and reliability becomes essential.

To support efficient and high-quality production processes, manufacturers require compact and highly reliable power supply solutions.

The main requirements for power supplies are therefore:

- **Compact footprint**
- **High efficiency**
- **High operational reliability**
- **Flexible installation**

OUR SOLUTION

The SPPM power supply series is extremely compact facilitating its installation in tight spaces.

The 600 W models measure only 218 mm (H), 116.5 mm (W), and 40.7 mm (D).

SPPM units provide high operating efficiency of up to 91%.

Built-in protection features—including output short circuit, over-current, over-voltage, and over-temperature protection—ensure a high level of reliability during operation.

The series supports a universal input range, accepting both AC and DC voltage, and operates within a wide temperature range from -30°C to +70°C (-22°F to 158°F), with derating starting from 50°C (122°F) for most models.

BENEFITS

- **Reduced panel space** requirements
- **Wide power range:** from 25 W to 800 W
- **12 available power ratings**
- **Multiple output voltage** options:
12 / 24 / 48 Vdc
- **Compatible** with various AC/DC input voltages
- **Comprehensive** protection features
- **Green LED** for status indication
- **Adjustable** output voltage
- **High efficiency** up to 91%
- **Isolation voltage** up to 4 kVAC
- **Overvoltage** category II
- **Wide operating temperature** range
(-30°C to +70°C) (-22°F to 158°F)
- **Derating** from 50°C
- **Certified** according to:
CE and UL 62368 / UL 60950