

3000 Watts

- High Efficiency up to 93%
- High Power Density
- Programmable Output Voltage (0-105%)
- Programmable Output Current (0-105%)
- Parallel Operation
- Fully Featured Signals & Controls
- 3 Year Warranty



The HDS3000 series offers users both output voltage and output current programming (0 – 105%) via resistance, voltage or I²C bus in a very high efficiency, high power density 3 kW chassis mount package. Measuring just 5" x 5" x 14.41", the HDS3000 also features active current sharing, remote on/off, remote sense and a power OK signal. The standby output is available whenever the mains supply is present and can be user selected as either 5 V at 0.5 A or 9V at 0.3 A.

Dimensions:

HDS3000:

14.41 x 5.00 x 5.00" (366 x 127 x 127 mm)

Models & Ratings

| Output Power | Output Voltage V1 | Output Current | | Ripple & Noise | Efficiency ⁽¹⁾ | Model Number |
|--------------|-------------------|----------------|---------|----------------|---------------------------|--------------|
| | | Min | Max | | | |
| 3000 W | 12.0 VDC | 0.0 A | 250.0 A | 150 mV | 89% | HDS3000PS12 |
| 3000 W | 15.0 VDC | 0.0 A | 200.0 A | 150 mV | 90% | HDS3000PS15 |
| 3000 W | 24.0 VDC | 0.0 A | 125.0 A | 200 mV | 91% | HDS3000PS24 |
| 3000 W | 30.0 VDC | 0.0 A | 100.0 A | 200 mV | 91% | HDS3000PS30 |
| 3000 W | 36.0 VDC | 0.0 A | 83.5 A | 200 mV | 92% | HDS3000PS36 |
| 3000 W | 48.0 VDC | 0.0 A | 62.5 A | 200 mV | 92% | HDS3000PS48 |
| 3000 W | 60.0 VDC | 0.0 A | 50.0 A | 300 mV | 93% | HDS3000PS60 |

Notes

1. Measured with 230 VAC input and full load.

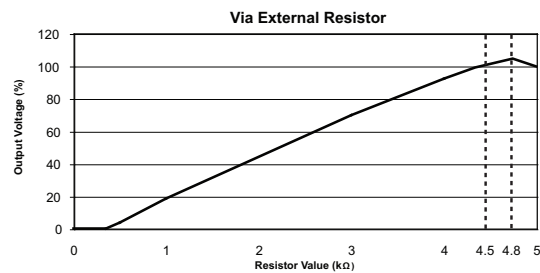
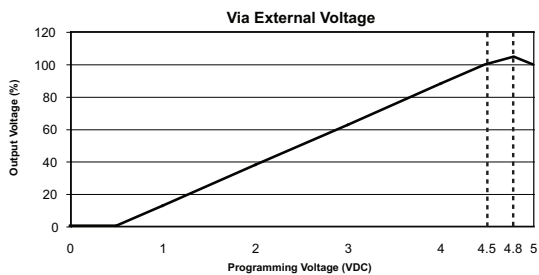
Input

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|-----------------------|-------------------------------|-----------|-----------|-------|-----------------------|
| Input Voltage | 90 | | 264 | VAC | See derating curve |
| Input Frequency | 47 | | 63 | Hz | |
| Power Factor | | 0.99/0.98 | | | 115/230 VAC full load |
| Input Current | | | 36.0/18.0 | A | 115/230 VAC |
| Inrush Current | | | 60.0/90/0 | A | 115/230 VAC |
| Earth Leakage Current | | | 2.5 | mA | 264 VAC/60 Hz |
| Input Protection | 2 x F20 A/250 V internal fuse | | | | |

Output

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|----------------------------|--|---------|------------------------|----------|---|
| Output Voltage | 12 | | 60 | VDC | See Models and Ratings table |
| Output Trim | | ±5.0 | | % | By potentiometer |
| Output Voltage Program | 0 | | 105 | % | Of rated output |
| Output Current Program | 0 | | 105 | % | Of rated output |
| Initial Set Accuracy | | | ±1 | % | |
| Minimum Load | 0 | | | A | |
| Start Up Delay | | | 1 | s | |
| Start Up Rise Time | | | 120 | ms | At full load |
| Hold Up Time | 8 | | | ms | |
| Line Regulation | | | ±1.0 | % | |
| Load Regulation | | | ±1 ^(V1) /±3 | % | 0-100% load. V1/5 V Standby |
| Transient Response | | <1 | | % | For a 25% step load change |
| Ripple & Noise | 150 | | 300 | mV pk-pk | See models and ratings table. Measured with 20 MHz bandwidth and using 12" twisted pair wire terminated with 0.1 µF ceramic capacitor and 47 µF electrolytic. |
| Overvoltage Protection | | | | | Tracks output voltage, see application notes Recycle AC to reset |
| Overtemperature Protection | | | | | Primary and secondary heatsinks, monitored Output shuts down, auto recovers |
| Overload Protection | | 105 | | % | Rated power, constant current |
| Short Circuit Protection | | | | | Auto recovery |
| Temperature Coefficient | | ±0.02 | | %/°C | 0-50 °C |
| Remote Sense | Compensates for 0.5 V max voltage drop, if remote sense is not required, local sense must be used | | | | |
| Enable | Output must be enabled, see application notes, power supply is shipped with enable links fitted | | | | |
| Current Share | 5 supplies can share within 5% | | | | |
| Standby Output | 5 V at 0.5 A, present whenever AC is applied (9 V at 0.3 A, user selectable, by connecting 'VSET', Pin 18 of CN2 to GND) | | | | |

Output Voltage Programming



Output Current Programming

