



**FEATURES**

- 1U Form Factor
- Complies with ATX12V and EPS 1U 2.0
- Meets Intel Haswell Power Requirements
- 5,000 Meters Operating Altitude
- 80 Plus Gold Efficiency
- IEC/EN/UL 60601-1 Edition 3.1 Approved



**INPUT SPECIFICATIONS**

Input Voltage Range .....	90-264 VAC
Input Frequency .....	47-63 Hz
Input Current .....	8A max. @ 115 VAC 4A max. @ 230 VAC
Inrush Current .....	50A @ 115 VAC, 100A @ 230 VAC, at 25°C cold start
Earth Leakage Current .....	150 µA max. @264 VAC. 63 Hz

**OUTPUT SPECIFICATIONS**

Output Power Ratings .....	See Rating Chart
Load Regulation .....	See Rating Chart
Ripple & Noise .....	See Rating Chart
Hold-up Time .....	17 ms min. @ full load & nominal input voltage
Over Load Protection .....	150% max.
Over Voltage Protection .....	3.7-4.8V for 3.3V 5.7-7.0V for 5V 13.4-16.0V for 12V
Power Turn-on Signal Delay .....	100-500 ms
Power Fail Signal Delay .....	1 ms min.
Temperature Coefficient .....	0.01%/°C max.

OUTPUT VOLTAGE & CURRENT RATING CHART				
Output Voltage	Minimum Load	*Maximum Load	Load Regulation	Ripple & Noise P-P (Max.)
+3.3V	0A	18A	±5%	50mV
+5V	0A	18A	±5%	50mV
+12V1	0A	16A (18A peak)	±5%	120mV
+12V2	0A	16A (18A peak)	±5%	120mV
+12V3	0.1A	16A (18A peak)	±5%	120mV
-5V	0A	0.2A	±10%	100mV
-12V	0A	0.5A	±10%	120mV
+5Vsb	0A	3A	±5%	50mV

\*Maximum overall output is 400W.  
 \*Maximum load for +3.3V and +5V is 100W.  
 \*Combined maximum load for +12V1, +12V2 & +12V3 is 32A.

**GENERAL SPECIFICATIONS**

Efficiency .....	87% min. at full load
Operating Altitude .....	5,000 meters max.
Operating Temperature .....	0°C to +60°C
Power Derating .....	None
Storage Temperature .....	-40°C to +80°C
Operating Humidity .....	5% to 85% RH non-condensing
Storage Humidity .....	5% to 95% RH non-condensing
Withstand Voltage .....	4,000 VAC, Input-Output (2MOPP) 1,500 VAC, Input-PE (1MOPP)
MTBF .....	>138,200 hours at full load, 25°C ambient, calculated per MIL-HDBK-217

**STANDARDS & COMPLIANCE**

IEC 60601-1-2:2014 .....	EMC & Immunity Performance
EN 60601-1-2:2015 .....	EMC & Immunity Performance
EN 55011, CISPR 11 .....	Class B, conducted & radiated
FCC, VCCI .....	Class B, conducted & radiated
EN 61000-3-2 .....	Harmonic distortion, Class D
EN 61000-3-3 .....	Line flicker
EN 61000-4-2 .....	ESD, ±15 KV air and ±8 KV contact
EN 61000-4-3 .....	Radiated immunity, 3 V/m
EN 61000-4-4 .....	Fast transient/burst, ±2 KV
EN 61000-4-5 .....	Surge, ±1 KV diff., ±2 KV com.
EN 61000-4-6 .....	Conducted immunity, 3 Vms.
EN 61000-4-8 .....	Magnetic field immunity, 30 A/m
EN 61000-4-11 .....	Voltage dip immunity, 30% reduction for 500ms, 50% reduction for 100ms, 100% reduction for 10ms
Safety Standards .....	UL/IEC/EN 60601-1 Edition 3.1, ANSI/AAMI ES 60601-1:2012, CSA C22.2 No. 60601-1:2014
Agency Approvals .....	UL, cUL, TUV, CB, CE
Other Compliance .....	RoHS, 80 Plus Gold, Intel Haswell

### MECHANICAL SPECIFICATIONS

