



Powerstax plc

N-03751 Series

1U High Ultra Compact AC-DC Power Supply 375W

- 375W AC-DC / 3.3" X 5" FOOTPRINT
- CONVECTION COOLED 260W
- HIGH POWER DENSITY: > 15W/in³
- 93% EFFICIENCY
- ACTIVE CURRENT SHARING
- REMOTE ON / OFF
- 5V STANDBY AND 12V AUX.

POWER SUPPLY DESIGN EXCELLENCE

Powerstax is a leader in the power density race with its high efficiency N-03751 Series AC-DC power supplies. The advanced technology yields a very small footprint, reduces wasted power and offers among the highest power density in its class. This efficient design means reduced energy costs, a greater return on your investment, greater reliability and longer product life.

UNMATCHED POWER DENSITY

With an overall height of 1.5" and a 3.3"x 5" footprint, the N-03751 Series delivers a power density over 15 watts per cubic inch. It is ideally suited for OEMs using the industry standard 1U chassis.



COMPLETE PROTECTION

The main output is enabled whenever all of the required startup conditions are met and is shut down upon command, loss of input power or whenever excessive loads or temperatures are sensed. It provides the host system with advanced warning of an impending shutdown to enable it to perform housekeeping before power is lost. The OR-ing board option allows the main outputs of up to four N-03751s to be operated in parallel. It also provides hot swappable N+1 configurations.

AC-DC SERIES

MODEL	OUTPUT	VOLTAGE	REGULATION (%)	MAXIMUM CURRENT (A)		RIPPLE & NOISE (P-P)
				CS	CC	
N-03751-PFC-120-00CS*	V1	12	±3	30.0	21.6	100mV
	V2	12	±5	1.0	1.0	80mV
N-03751-PFC-120-CCCS*	V3	5sb	±5	1.0	1.0	50mV
N-03751-PFC-240-00CS*	V1	24	±3	15	10.8	200mV
	V2	12	±5	1.0	1.0	80mV
N-03751-PFC-240-CCCS*	V3	5sb	±5	1.0	1.0	50mV
N-03751-PFC-280-00CS*	V1	28	±3	12.8	9.2	200mV
	V2	12	±5	1.0	1.0	80mV
N-03751-PFC-280-CCCS*	V3	5sb	±5	1.0	1.0	50mV
N-03751-PFC-360-00CS*	V1	36	±3	10.0	7.2	200mV
	V2	12	±5	1.0	1.0	80mV
N-03751-PFC-360-CCCS*	V3	5sb	±5	1.0	1.0	50mV
N-03751-PFC-400-00CS*	V1	40	±3	9.0	6.5	200mV
	V2	12	±5	1.0	1.0	80mV
N-03751-PFC-400-CCCS*	V3	5sb	±5	1.0	1.0	50mV
N-03751-PFC-480-00CS*	V1	48	±3	7.5	5.4	200mV
	V2	12	±5	1.0	1.0	80mV
N-03751-PFC-480-CCCS*	V3	5sb	±5	1.0	1.0	50mV
N-03751-PFC-540-00CS*	V1	54	±3	6.7	4.8	200mV
	V2	12	±5	1.0	1.0	80mV
N-03751-PFC-540-CCCS*	V3	5sb	±5	1.0	1.0	50mV
N-03751-PFC-560-00CS*	V1	56	±3	6.4	4.6	200mV
	V2	12	±5	1.0	1.0	80mV
N-03751-PFC-560-CCCS*	V3	5sb	±5	1.0	1.0	50mV

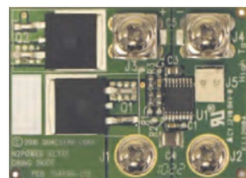
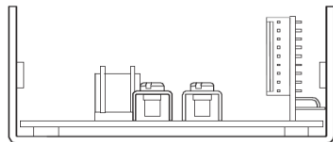
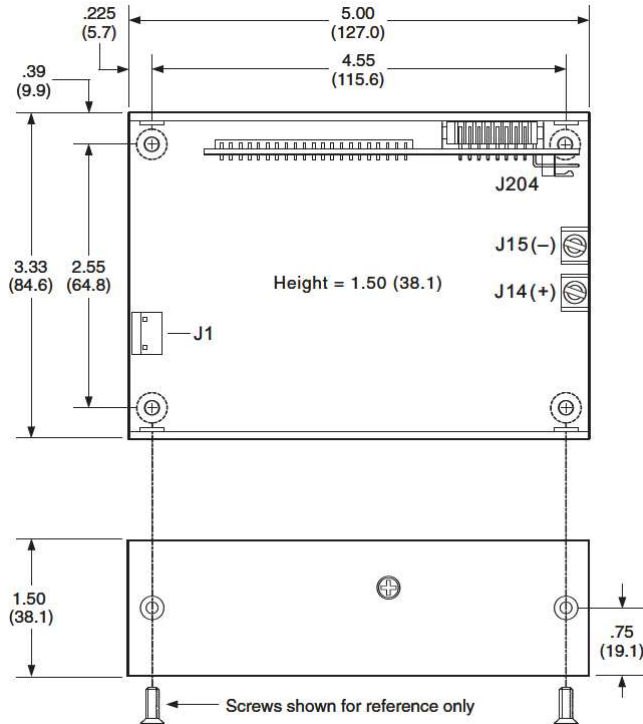
CS = Current Sharing
CC = Convection Cooled

*N+1 operation requires optional OR-ing Board, see below
sb = standby



Typical Mechanical Drawing:

Inches (mm)



Or-ing Board Option

Safety

UL 60950-1:2007 (2nd Edition) / C22.2 No. 60950-1-07 Safety of Information Technology Equipment (ITE)
 2006/95/EC - "Low Voltage (Safety) Directive"
 IEC 60950-1:2005 (2nd Edition) Safety of Information Technology Equipment (ITE)

EMC

FCC part 15, subpart B
 2004/108/EC "Electromagnetic Compatibility (EMC) Directive"
 EN 61204-3 Class B

INPUT SPECIFICATIONS

Nominal Input Voltage	100 – 240 VAC
Input Frequency Range	47 - 63Hz
Input Current	4.3A @ 100 VAC
Input Protection	6.3A fuse
Safety Isolation	3000 VAC input to output 1500 VAC input to ground
Inrush Current	14A @ 240 VAC
Leakage Current	0.75mA @ 240 VAC/60Hz
Power Factor Correction	Active PFC circuitry, meets EN61000-3-2

OR-ING BOARD OPTION

Output Voltage:	Or-ing Board P/N:
12 V	N-03751-12-ORING
24 V	N-03751-24-ORING
28 V – 48 V	N-03751-28-ORING
54 V – 56 V	N-03751-54-ORING

PROTECTION

Overvoltage	V1 (latches off)
Overpower	Protected/ Auto recovery
Short Circuit	Auto recovery of all outputs
Thermal Shutdown	Auto recovery protection against over temperature conditions

OPERATING SPECIFICATIONS

Operating Temperature	-25°C to +50°C
Temperature Derating	2.5% / degree 50°C to 70°C
Storage Temperature	-40°C to +85°C
Forced Air Cooling	10 CFM minimum
Convection Cooling Option	260W maximum output
MTBF (Bellcore, SR-332, Issue 2)	376,644 hours @ 25°C

SIGNALS

Remote Sense	V1 and Return
Current Sharing	V1 using active circuitry
Passive Redundancy	V2 and V3 outputs may be wire OR-ed
Power Good (PG) Output	High-true CMOS logic and LED drive outputs
Remote Enable Input	Low-true input enables V1 output
Onboard LED Indicators	AC On Power Good
Trim Input	±5%

OUTPUT SPECIFICATIONS

Total Output	375W (260W with CC Option)
Hold-up Time	Minimum 22 mS
Efficiency	Up to 93%
Min Load	No load
Over/Under Shoot	Maximum 10% at turn-on

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