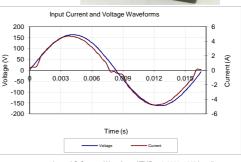
80 PLUS Verification and Testing Report

TYPICAL EFFICIENCY (50% Load):	87.27%	
AVERAGE EFFICIENCY :	85.58%	
80 PLUS COMPLIANT:	YES	



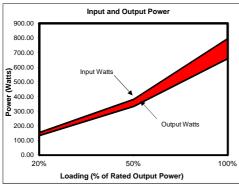
3306
Powercool
PCB-650BK
NA
2012
ATX12V
10/12/12

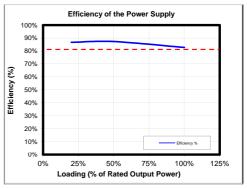
Rated Specifications	Value	Units	
Input Voltage	110-220	Volts	
Input Current	NA	Amps	
Input Frequency	60/50	Hz	
Rated Output Power	650	Watts	
Note: All measurements were taken with input volta	age at 115 V nominal at 6	0 Hz.	



Input AC Current Waveform (ITHD = 9.08%, 50% Load)

PF	I _{THD} (%)	Load	Input	DC Terminal Voltage (V)/ DC Load Current (A)					Output	Efficiency
		(%)	Watts	12V (cumulative of 12V1, 12V2, etc.)	-12V	3.3V	5V	5Vsb	Watts	%
0.98	6.87%	10%	80.43	12.2/4.3	11.6/0	3.4/1.4	5.1/1.4	5.1/0.2	66.61	82.81%
0.97	19.19%	20%	153.32	12.2/8.6	11.6/0.1	3.4/2.8	5.1/2.8	5.1/0.5	132.90	86.68%
0.99	9.08%	50%	379.80	12.2/21.6	11.6/0.2	3.4/7	5.1/7	5.1/1.1	331.44	87.27%
1.00	7.90%	100%	796.00	12.2/43.2	11.6/0.5	3.4/14	5/13.9	5/2.2	658.91	82.78%
	0.98 0.97 0.99	0.98 6.87% 0.97 19.19% 0.99 9.08%	IIII (%) 0.98 6.87% 10% 0.97 19.19% 20% 0.99 9.08% 50%	(%) Watts 0.98 6.87% 10% 80.43 0.97 19.19% 20% 153.32 0.99 9.08% 50% 379.80	(%) Watts 12V (cumulative of 12V1, 12V2, etc.) 0.98 6.87% 10% 80.43 12.2/4.3 0.97 19.19% 20% 153.32 12.2/8.6 0.99 9.08% 50% 379.80 12.2/21.6	(%) Watts 12V (cumulative of 12V1, 12V2, etc.) -12V 0.98 6.87% 10% 80.43 12.2/4.3 11.6/0 0.97 19.19% 20% 153.32 12.2/8.6 11.6/0.1 0.99 9.08% 50% 379.80 12.2/21.6 11.6/0.2	(%) Watts 12V (cumulative of 12V1, 12V2, etc.) -12V 3.3V 0.98 6.87% 10% 80.43 12.2/4.3 11.6/0 3.4/1.4 0.97 19.19% 20% 153.32 12.2/8.6 11.6/0.1 3.4/2.8 0.99 9.08% 50% 379.80 12.2/21.6 11.6/0.2 3.4/7	(%) Watts 12V (cumulative of 12V1, 12V2, etc.) -12V 3.3V 5V 0.98 6.87% 10% 80.43 12.2/4.3 11.6/0 3.4/1.4 5.1/1.4 0.97 19.19% 20% 153.32 12.2/8.6 11.6/0.1 3.4/2.8 5.1/2.8 0.99 9.08% 50% 379.80 12.2/21.6 11.6/0.2 3.4/7 5.1/7	(%) Watts 12V (cumulative of 12V1, 12V2, etc.) -12V 3.3V 5V 5Vsb 0.98 6.87% 10% 80.43 12.2/4.3 11.6/0 3.4/1.4 5.1/1.4 5.1/0.2 0.97 19.19% 20% 153.32 12.2/8.6 11.6/0.1 3.4/2.8 5.1/2.8 5.1/0.5 0.99 9.08% 50% 379.80 12.2/21.6 11.6/0.2 3.4/7 5.1/7 5.1/1.1	(%) Watts 12V (cumulative of 12V1, 12V2, etc.) -12V 3.3V 5V 5Vsb Watts 0.98 6.87% 10% 80.43 12.2/4.3 11.6/0 3.4/1.4 5.1/1.4 5.1/0.2 66.61 0.97 19.19% 20% 153.32 12.2/8.6 11.6/0.1 3.4/2.8 5.1/2.8 5.1/0.5 132.90 0.99 9.08% 50% 379.80 12.2/21.6 11.6/0.2 3.4/7 5.1/7 5.1/1.1 331.44







PLUG LOAD Solutions These tests were conducted by a third party independent testing firm on behalf of the 80 PLUS Program. 80 PLUS is a certification program to promote highly-efficient power supplies (greater than 80% efficiency in the active mode) in technology applications. *http://www.80plus.org/*

