

Testing Report - Performance - Efficiency

Date 28/01/2019

Efficiency Load 50%

95.89

Everange Efficiency Load 10% - 100%

94.46

General Evaluation

87.44/100

Manufacturer	ThermalTake
Model	TPG-1250DH3FCT iRGBPlus 1250W
Serial	-
Type	ATX 12V 2.31 & SSI EPS 12V 2.92
PFC	Active

Specification		Value		
Input Voltage (Volt AC)		100-240		
Input Current (Ampere)		15A		
Input Frequency (Hz)		47-63		
Output Power (Watt)		1250		
	Ampere	Watt	Watt Tot	
Output +12V	104A	1248W	1250W	
Output +5V	20A	100W		
Output +3.3V	20A	15W		
Output +5Vsb	3A	3.6W		
Output -12V	0.3A	3.6W		

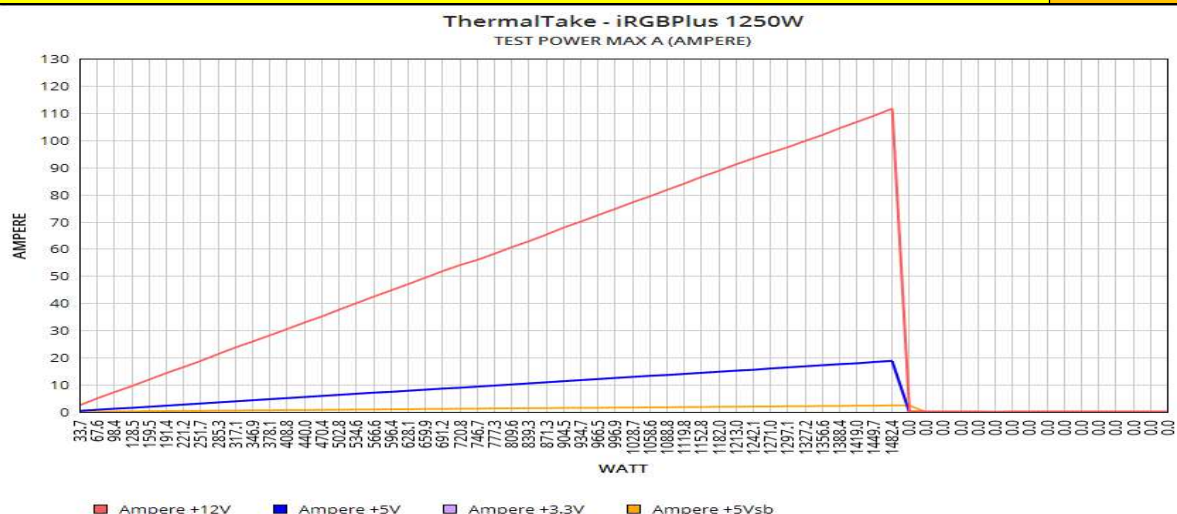


Measurement conditions (pure sine wave):

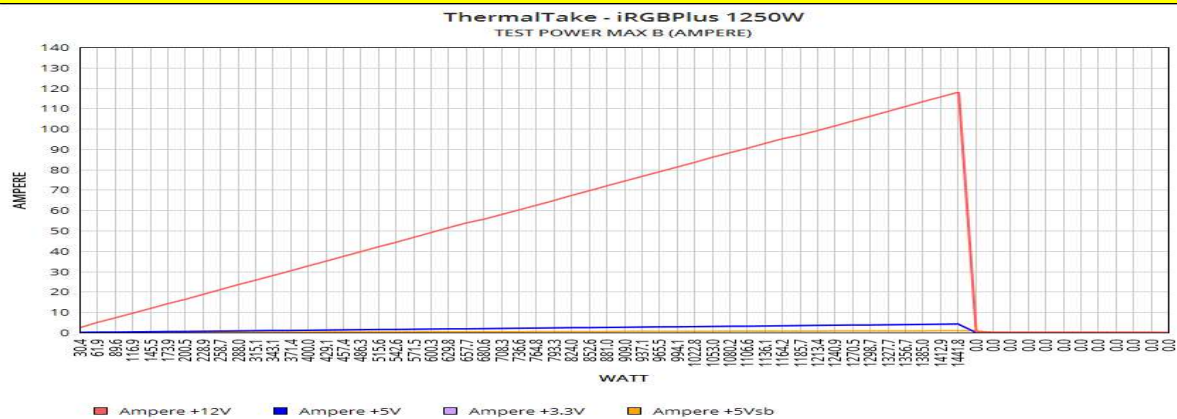
220V / 50Hz

Power Max Ampere A - Value [+12V-150A]-[+5V-25A]-[+3.3V-25A]-[+5Vsb-3A]

Rating: 6.93

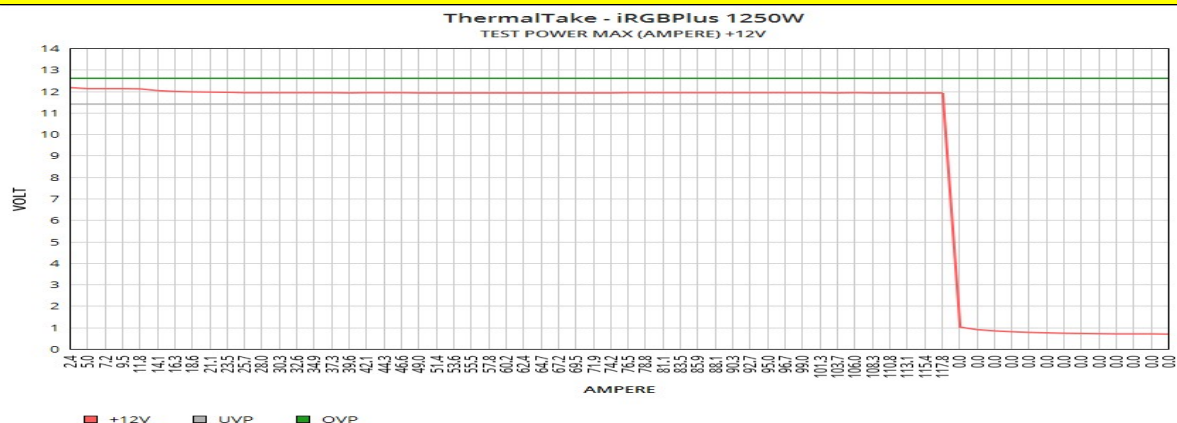


Power Max Ampere B - Value [+12V-150A]-[+5V-5A]-[+3.3V-5A]-[+5Vsb-1A]



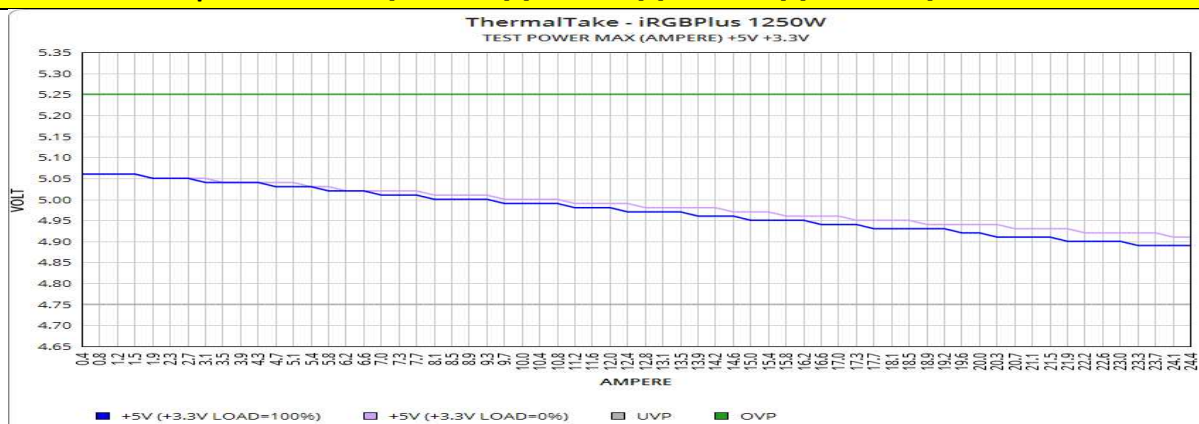
www.digitalelab.it

Power Max Ampere 12V - Value [+12V-150A]-[+5V-0A]-[+3.3V-0A]-[+5Vsb-0A]



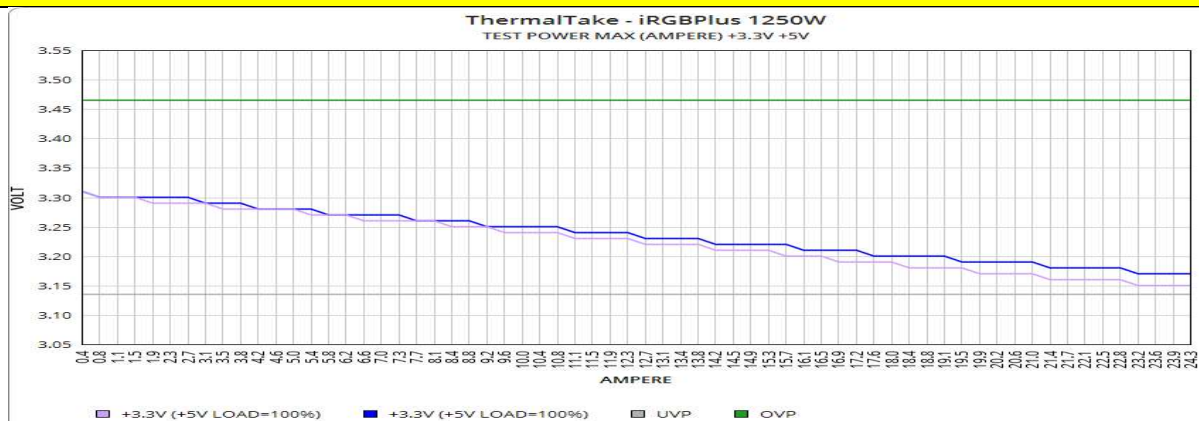
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Power Max Ampere 5V - Value [+12V-0A]-[+5V-25A]-[+3.3V-0A]-[+5Vsb-0A]



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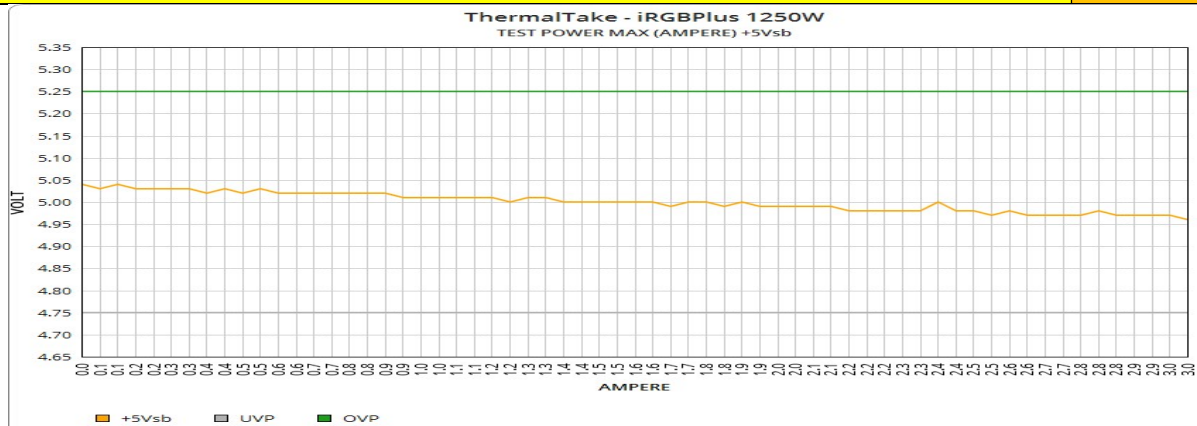
Power Max Ampere 3.3V - Value [+12V-0A]-[+5V-0A]-[+3.3V-25A]-[+5Vsb-0A]



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Power Max Ampere 5Vsb - Value [+12V-0A]-[+5V-0A]-[+3.3V-0A]-[+5Vsb-3.0A]

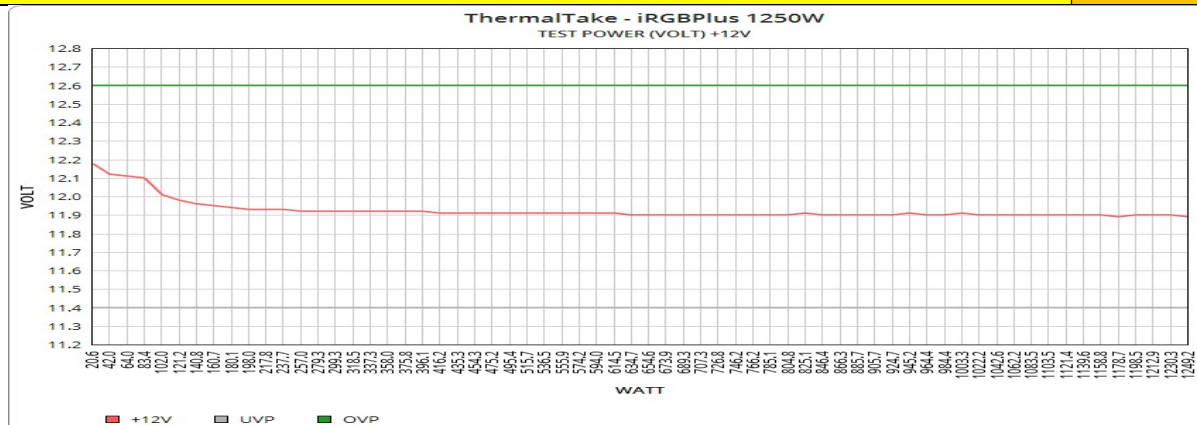
Rating: 8.28



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Power (Voltage 12V) - Value [+12V-100A]-[+5V-8A]-[+3.3V-8A]-[+5Vsb-2A]

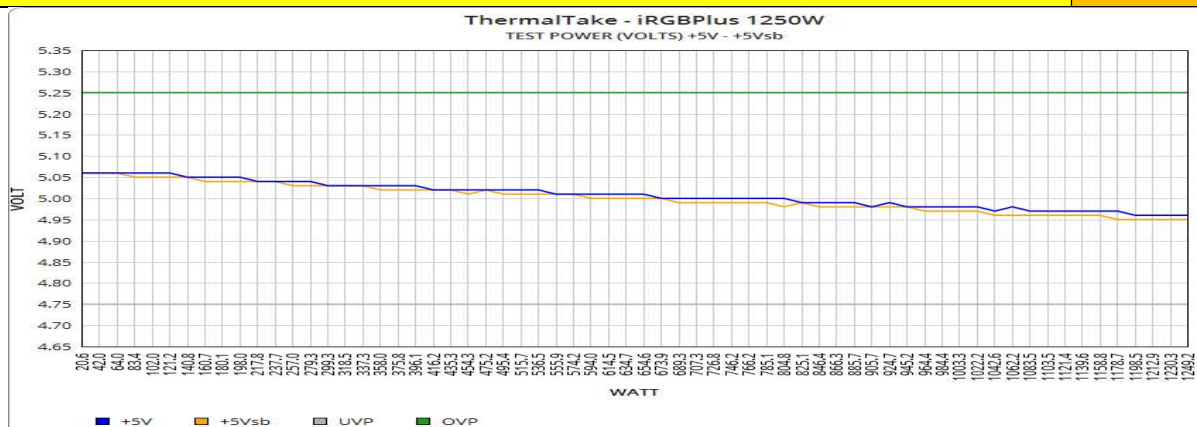
Rating: 9.22



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Power (Voltage 5V + 5Vsb) - Value [+12V-100A]-[+5V-8A]-[+3.3V-8A]-[+5Vsb-2A]

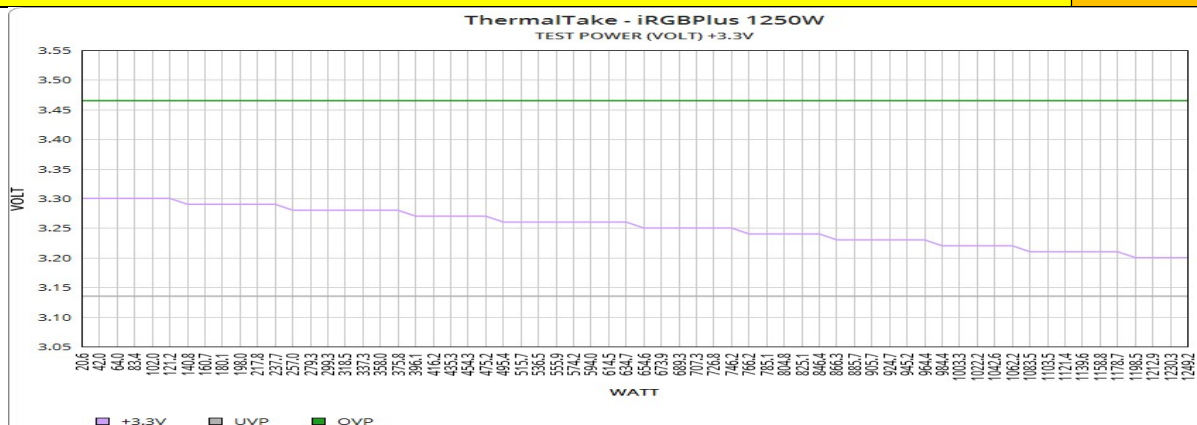
Rating: 9.29



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Power (Voltage 3.3V) - Value [+12V-100A]-[+5V-8A]-[+3.3V-8A]-[+5Vsb-2A]

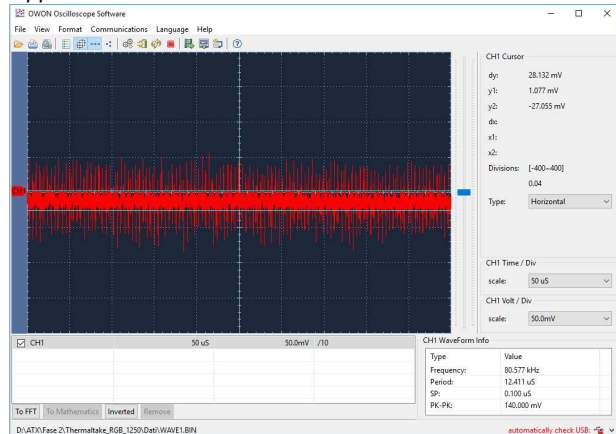
Rating: 8.96



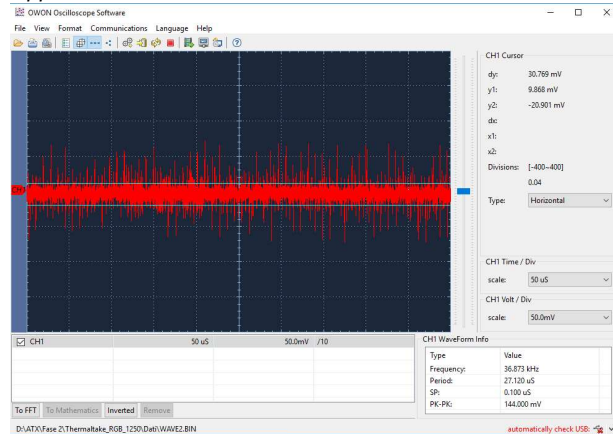
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Ripple (Voltage Pk-Pk) - Value [+12V-50A]-[+5V-4A] - [+3.3V-4A]-[+5Vsb-0.1A]

Ripple +12V – 28.13 mV

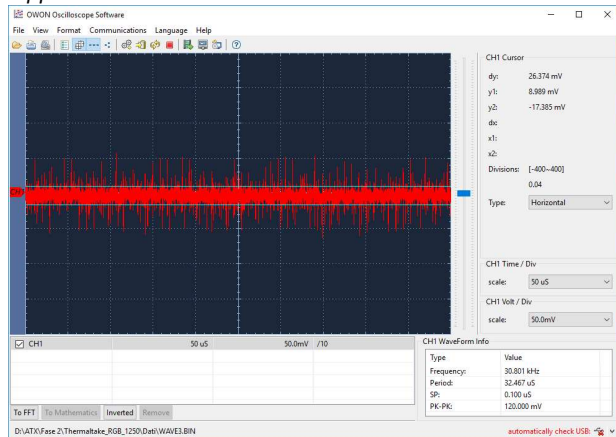


Ripple +5V – 30.76 mV

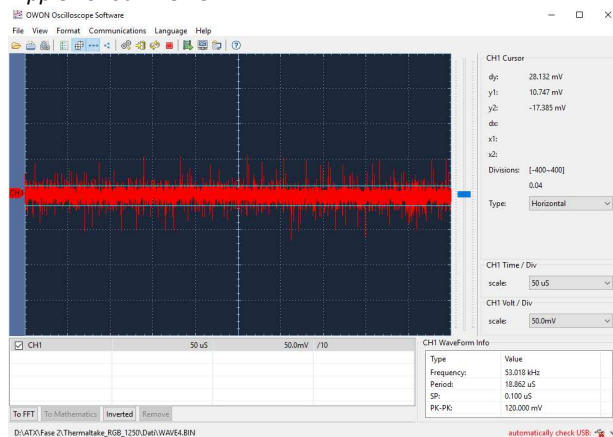


Ripple (Voltage Pk-Pk) - Value [+12V-50A]-[+5V-4A] - [+3.3V-4A]-[+5Vsb-0.1A]

Ripple +3.3V – 26.37 mV

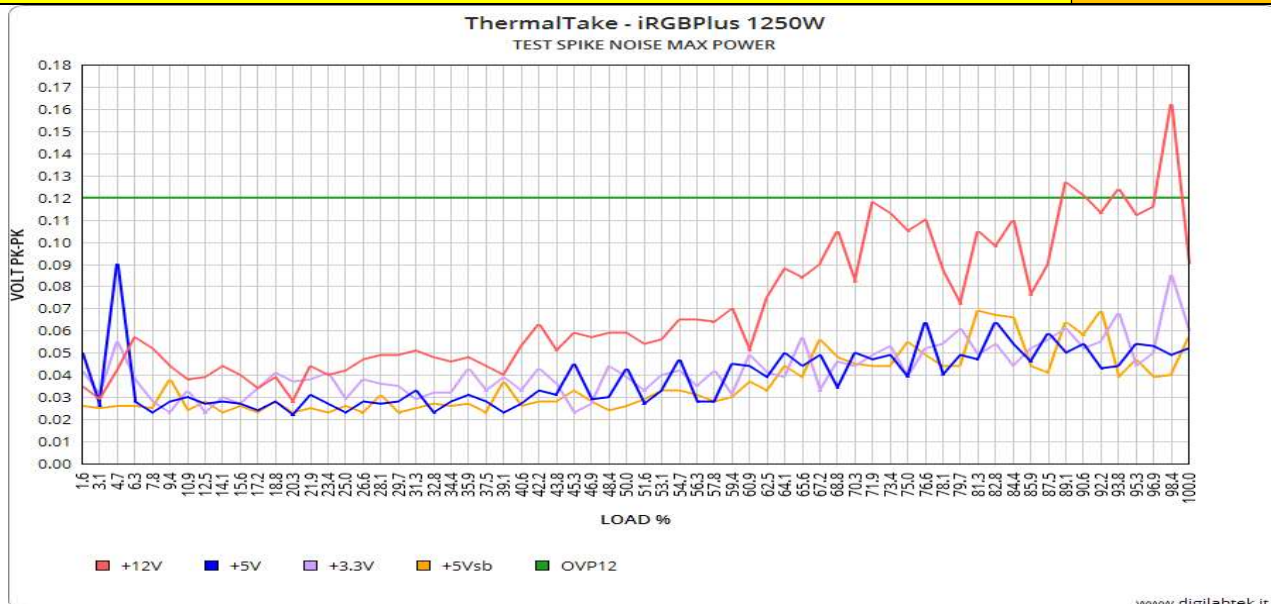


Ripple +5Vsb – 28.13 mV



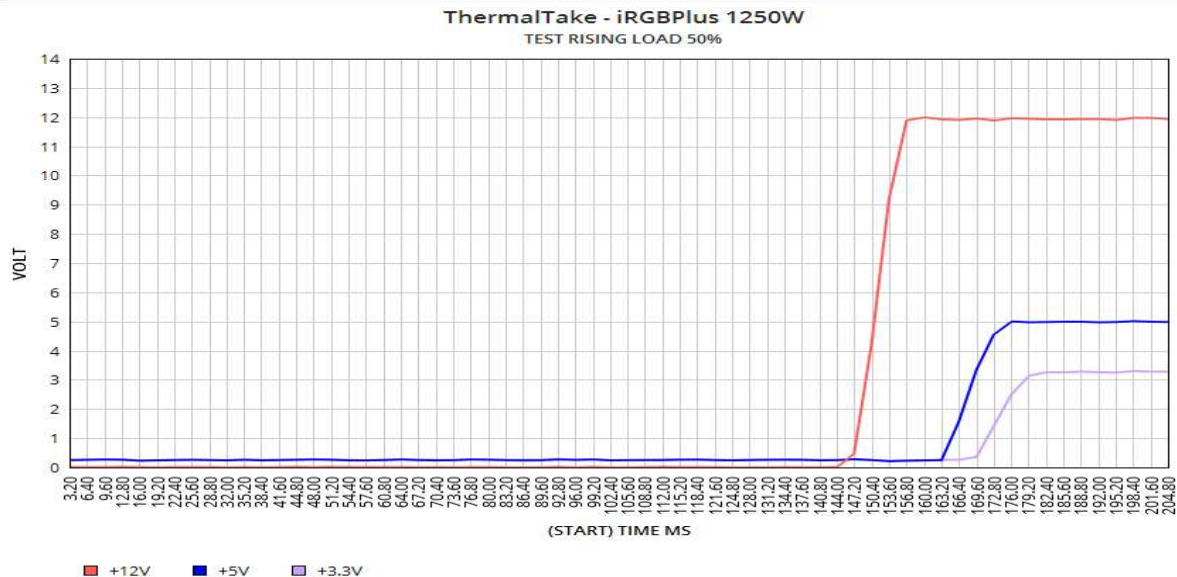
Spike noise (Voltage Pk-Pk) - Value [+12V-100A]-[+5V-8A]-[+3.3V-8A]-[+5Vsb-0.1A]

Rating: 8.77



Rising (Voltage) - Value [+12V-50A]-[+5V-4A]-[+3.3V-4A]-[+5Vsb-1A]

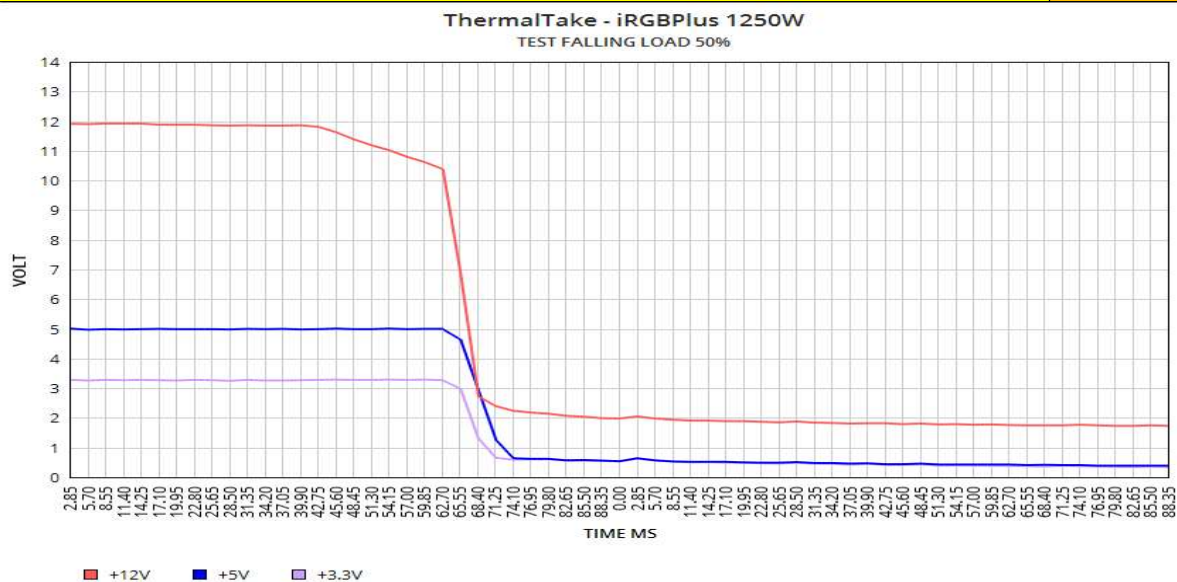
Rating: 8.13



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Falling (Voltage) - Value [+12V-50A]-[+5V-4A]-[+3.3V-4A]-[+5Vsb-1A]

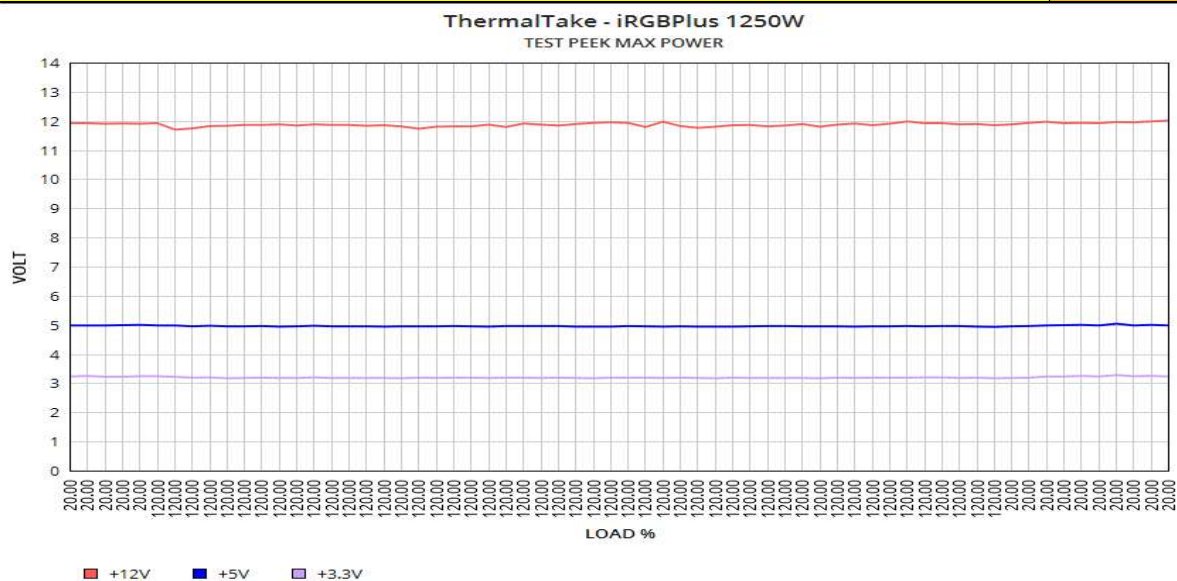
Rating: 8.08



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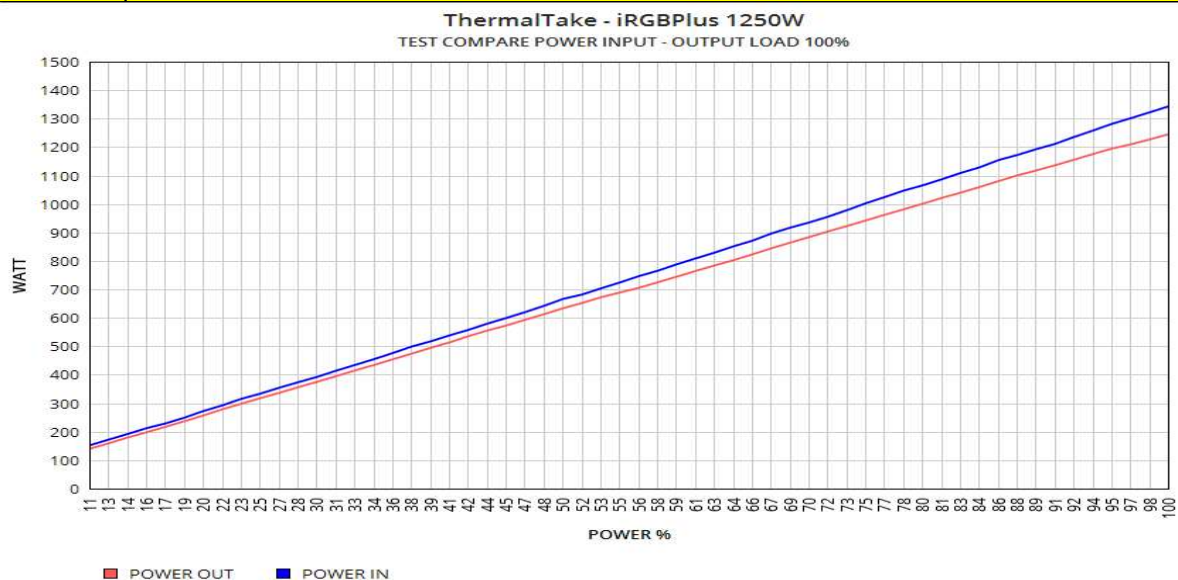
Peek (Voltage) - Value [+12V-100A]-[+5V-8A]-[+3.3V-8A]-[+5Vsb-1A]

Rating: 9.36



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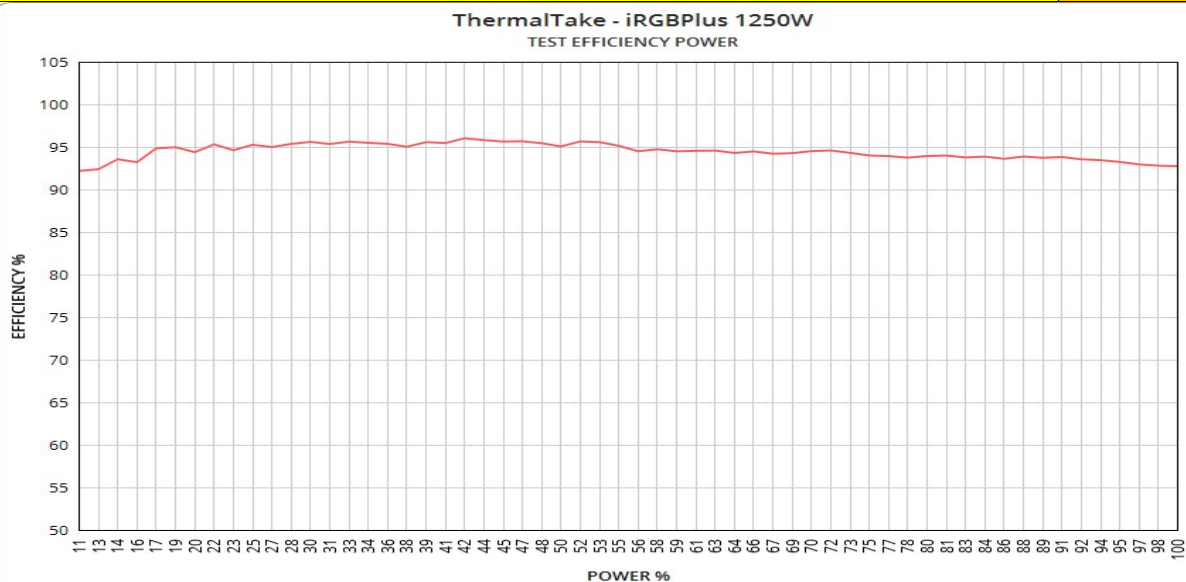
Compare Input and Output Power



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Efficiency Power Supply

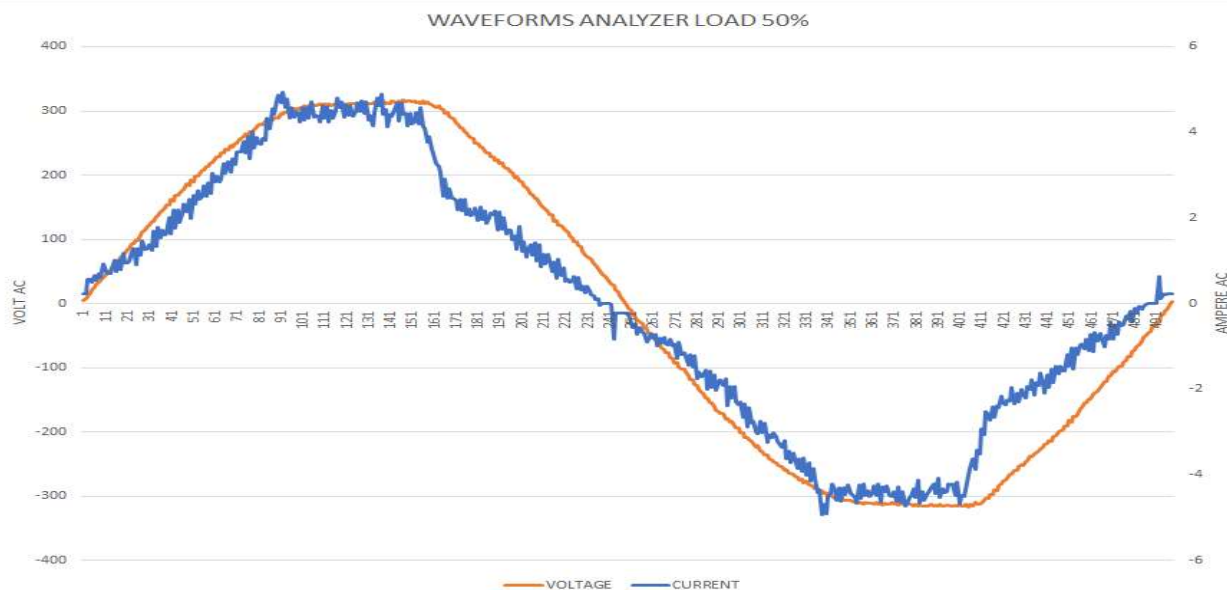
Rating: 9



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Current and Voltage Waveforms Value [+12V-50A]-[+5V-4A]-[+3.3V-4A]-[+5Vsb-1A]

Rating:



Efficiency Report 220V AC / 50Hz

Watt In	I-rms	PF	Load %	+12V/A	+5V/A	+3.3V/A	+5Vsb/A	Watt Out	Efficiency
138.67	0.694	0.85	10%	12.0/10.17	5.0/0.78	3.3/0.80	5.0/0.22	129.68	93.52%
266.49	1.219	0.94	20%	12.0/19.96	5.0/1.50	3.3/1.48	5.0/0.55	253.87	95.26%
660.06	2.943	0.98	50%	11.9/49.87	5.0/4.05	3.2/4.02	5.0/1.08	632.90	95.89%
1333.94	5.983	0.99	100%	11.9/98.05	5.0/8.02	3.2/8.01	4.9/2.12	1241.96	93.10%

Watt In	I-rms	PF	Load %	Standby Efficiency +5Vsb/A				Watt Out	Efficiency
4.25	0.155	-	20%	5.07/0.65				3.25	76.47%
9.94	0.188	0.22	50%	5.04/1.61				8.12	81.69%
20.46	0.227	0.38	100%	4.93/3.11				15.31	74.83%

Standby Power IEC62301-2011 (MAX 0.5W)

PASS

0.373W

Conclusions

Positive notes:

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-
-

Negative notes:

-
-
-