

**Testing Report - Performance - Efficiency**

Date 03/12/2018

**Efficiency Load 50%**

**96.04**

**Everange Efficiency Load 10% - 100%**

**94.74**

**General Evaluation**

**91.60/100**

Manufacturer	Seasonic
Model	SSR-850TR - PRIME TITANIUM
Serial	-
Type	ATX 12V
PFC	Active

Specification		Value	
Input Voltage (Volt AC)		100-240	
Input Current (Ampere)		11A - 5.5A	
Input Frequency (Hz)		50/60	
Output Power (Watt)		850	
	Ampere	Watt	Watt Tot
Output +12V	70A	840W	850W
Output +5V	20A	100W	
Output +3.3V	20A		
Output +5Vsb	3A	15W	
Output -12V	0.3A	3.6W	



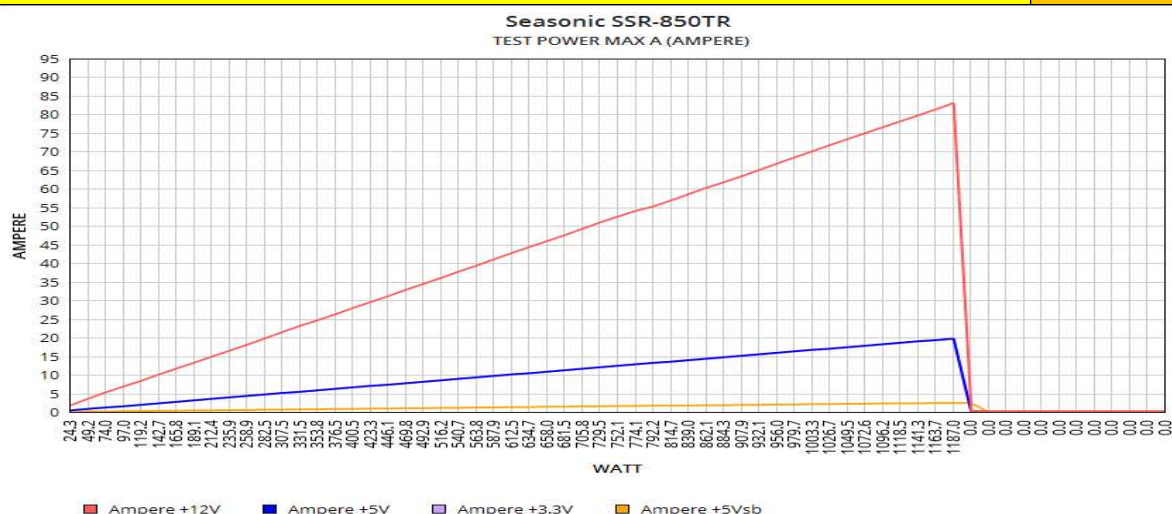
850 W

**Measurement conditions (pure sine wave):**

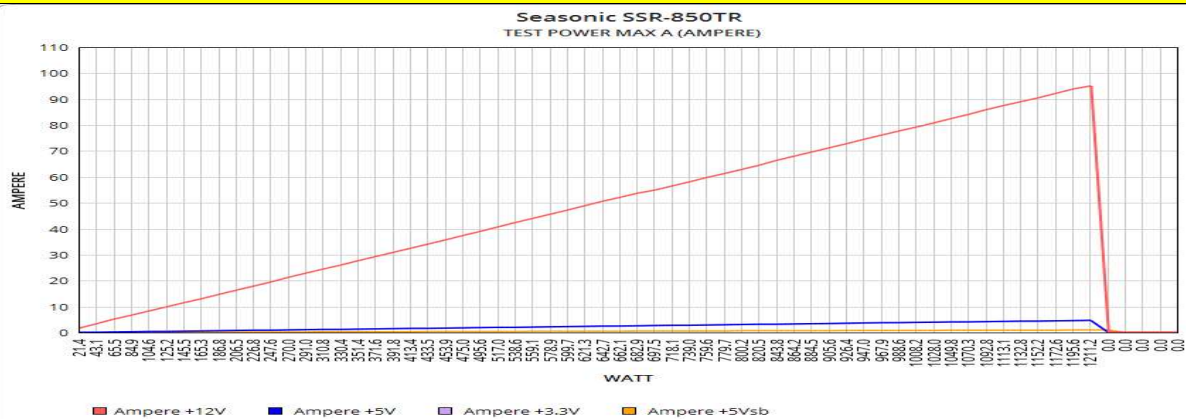
**220V / 50Hz**

**Power Max Ampere A - Value [+12V-105A]-[+5V-25A]-[+3.3V-25A]-[+5Vsb-3A]**

**Rating: 8.12/10**

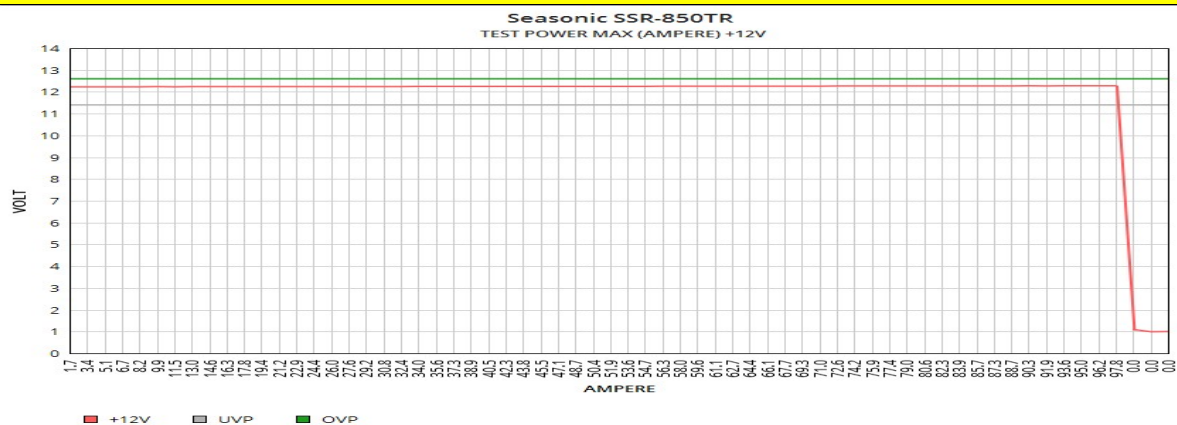


## Power Max Ampere B - Value [+12V-105A]-[+5V-5A]-[+3.3V-5A]-[+5Vsb-1A]



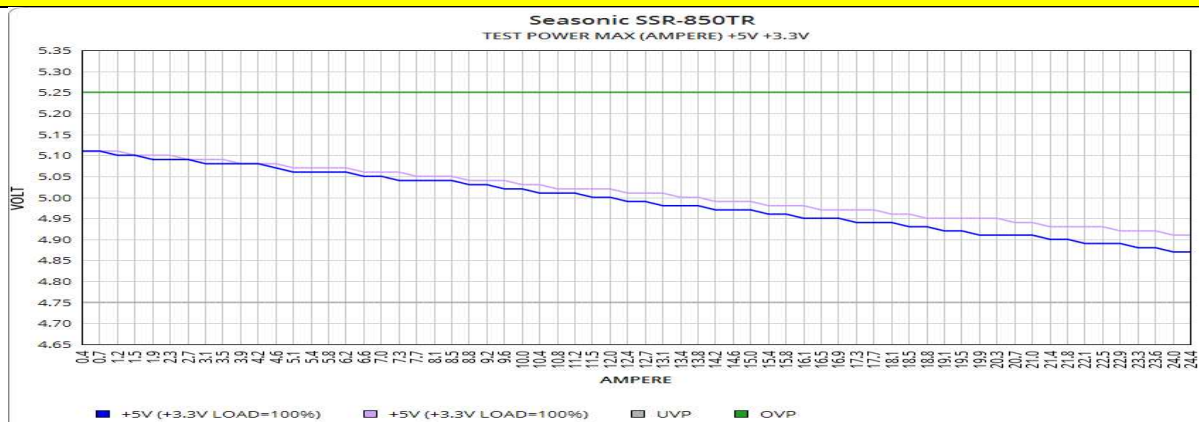
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## Power Max Ampere 12V - Value [+12V-105A]-[+5V-0A]-[+3.3V-0A]-[+5Vsb-0A]



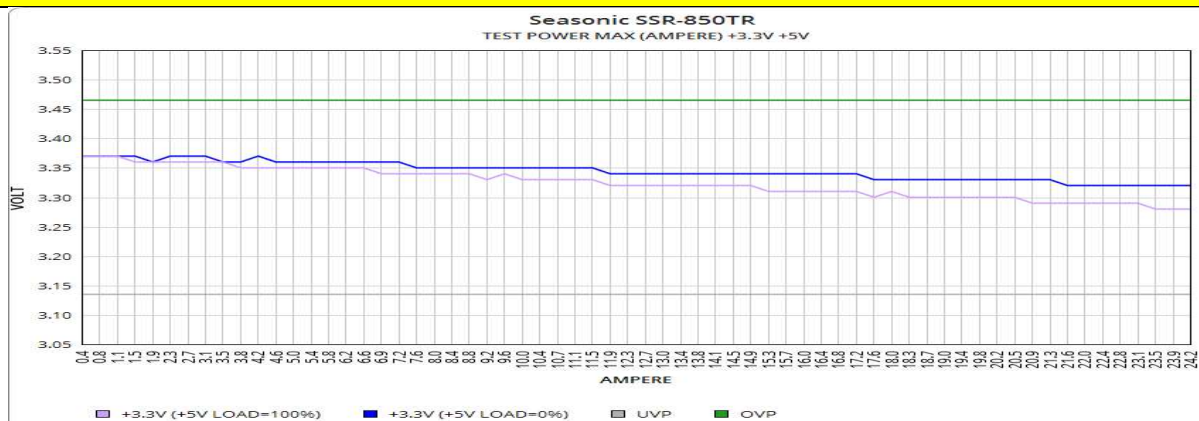
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## Power Max Ampere 5V - Value [+12V-0A]-[+5V-25A]-[+3.3V-0A]-[+5Vsb-0A]



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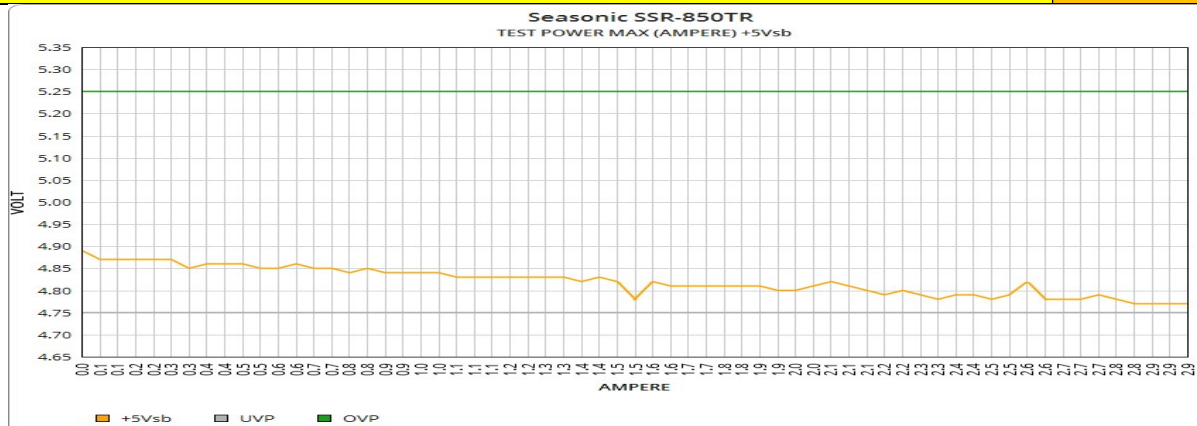
## Power Max Ampere 3.3V - Value [+12V-0A]-[+5V-0A]-[+3.3V-25A]-[+5Vsb-0A]



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

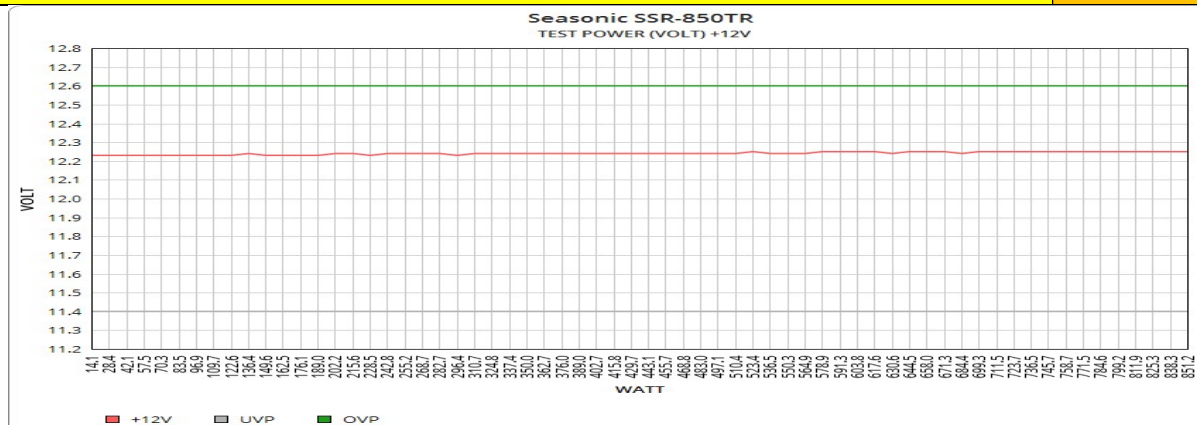
Rating: 8.63/10



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Power (Voltage 12V) - Value [+12V-63A]-[+5V-10A]-[+3.3V-10A]-[+5Vsb-2A]

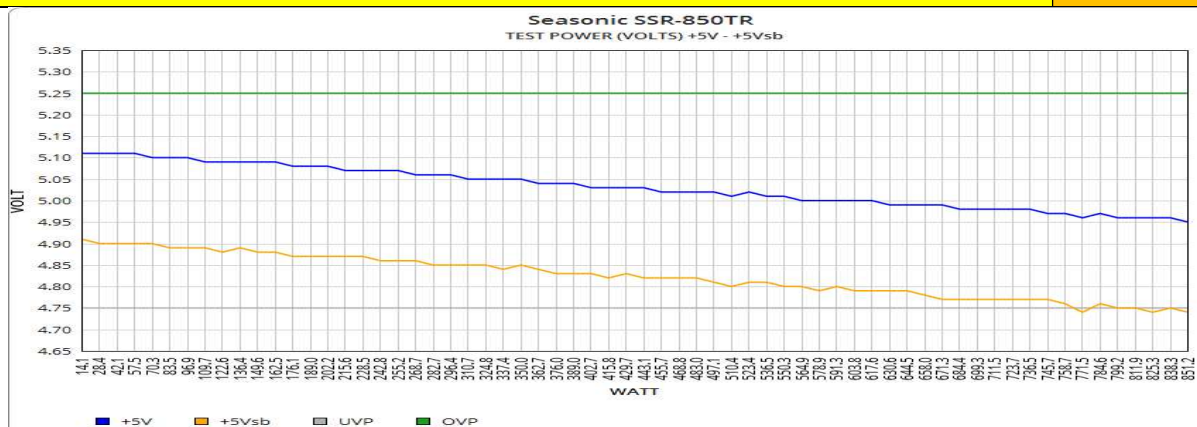
Rating: 9.95/10



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Power (Voltage 5V + 5Vsb) - Value [+12V-63A]-[+5V-10A]-[+3.3V-10A]-[+5Vsb-2A]

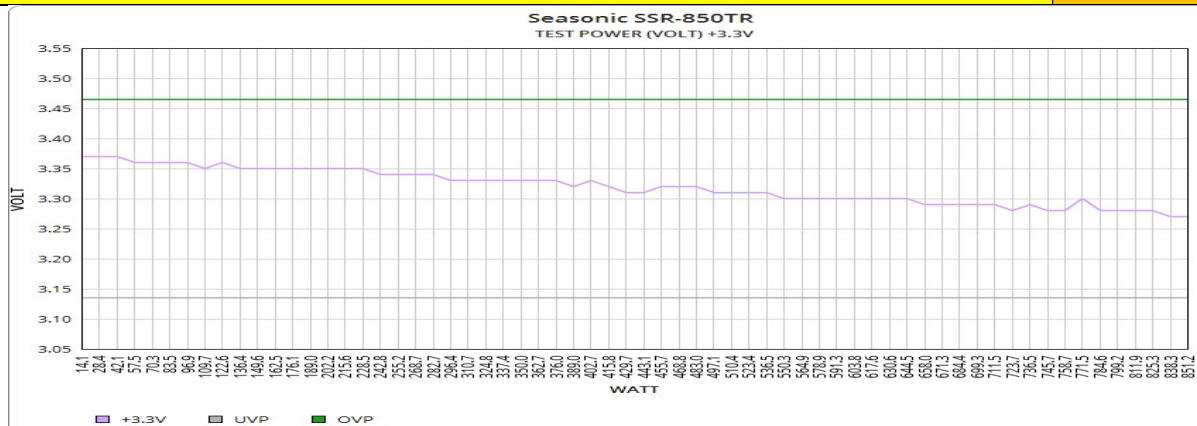
Rating: 8.97/10



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Power (Voltage 3.3V) - Value [+12V-63A]-[+5V-10A]-[+3.3V-10A]-[+5Vsb-2A]

Rating: 8.98/10

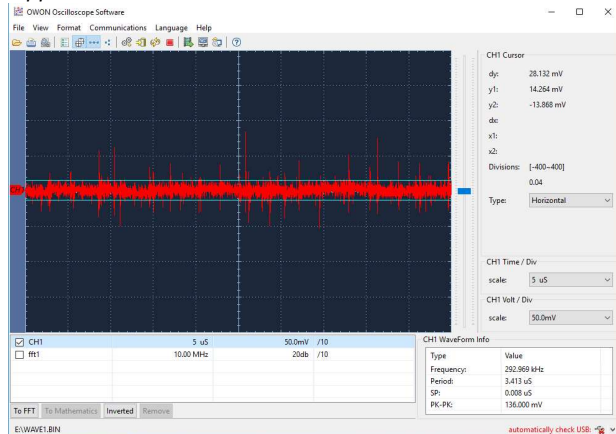


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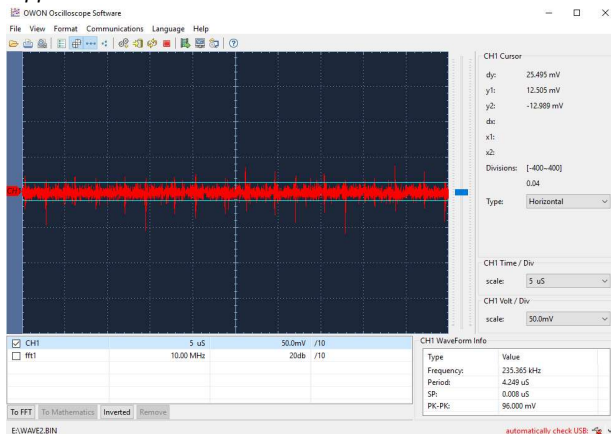


## Ripple (Voltage Pk-Pk) - Value [+12V-32A]-[+5V-5A] - [+3.3V-5A]-[+5Vsb-0.1A]

### Ripple +12V – 28.13 mV

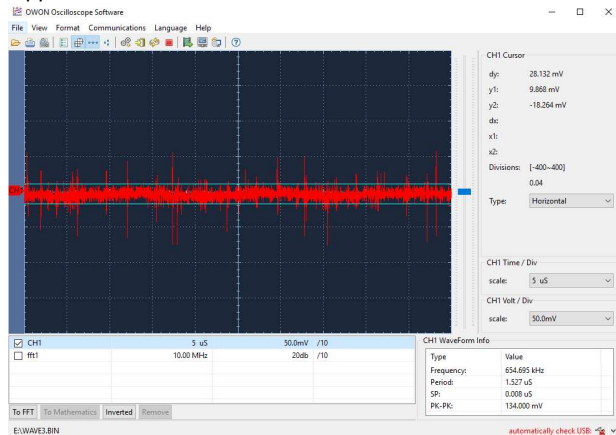


### Ripple +5V – 25.49 mV

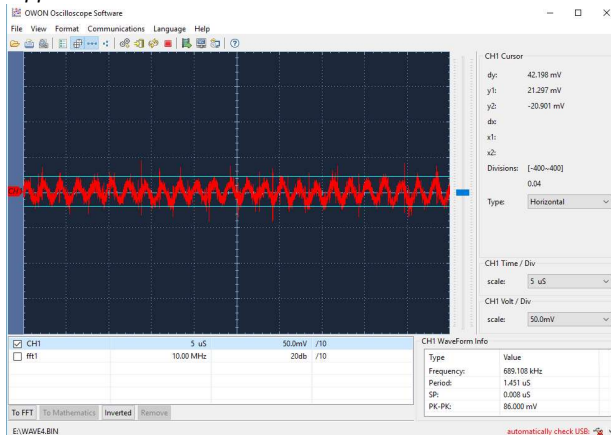


## Ripple (Voltage Pk-Pk) - Value [+12V-32A]-[+5V-5A] - [+3.3V-5A]-[+5Vsb-0.1A]

### Ripple +3.3V – 28.13 mV

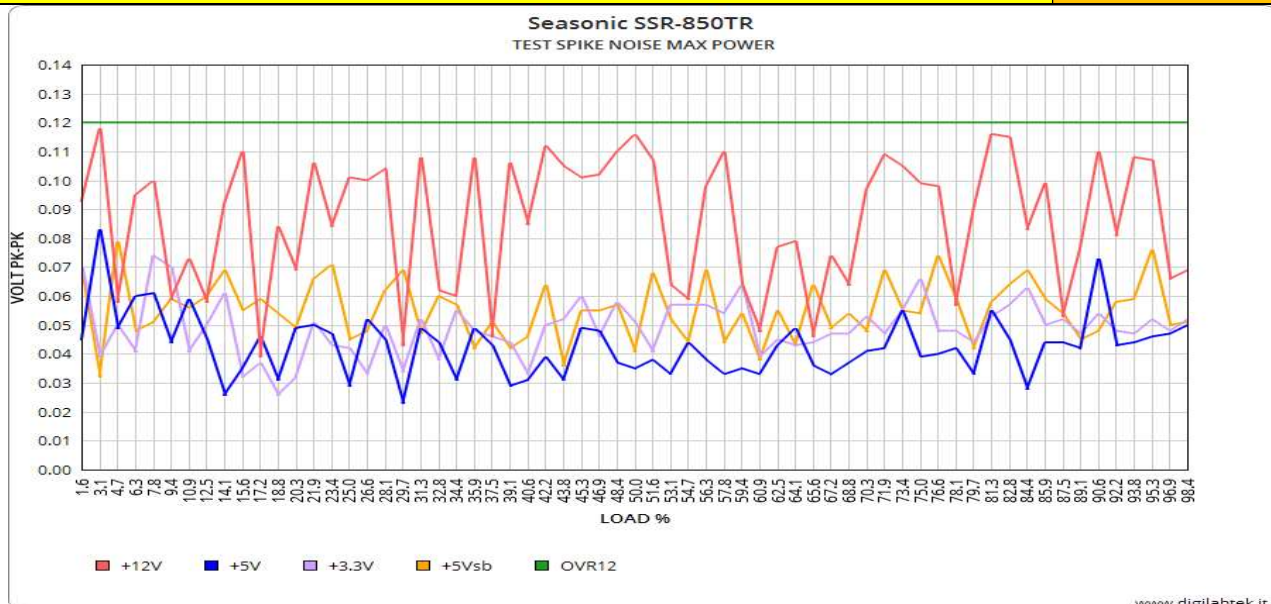


### Ripple +5Vsb – 42.19 mV



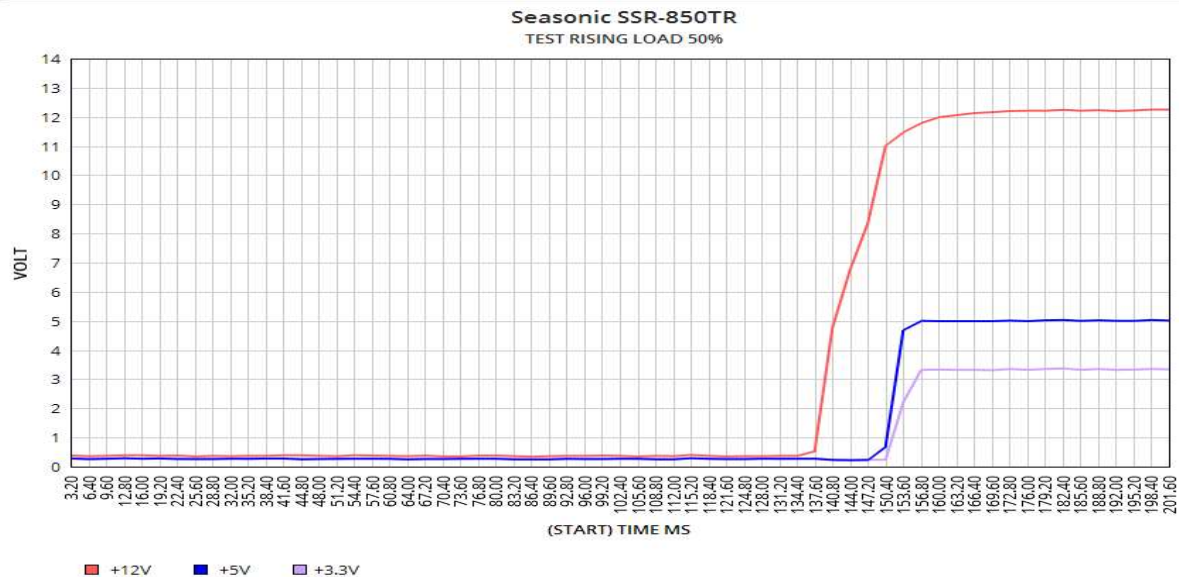
## Spike noise (Voltage Pk-Pk) - Value [+12V-63A]-[+5V-10A]-[+3.3V-10A]-[+5Vsb-0.1A]

Rating: 8.74/10



**Rising (Voltage) - Value [+12V-32A]-[+5V-5A]-[+3.3V-5A]-[+5Vsb-1A]**

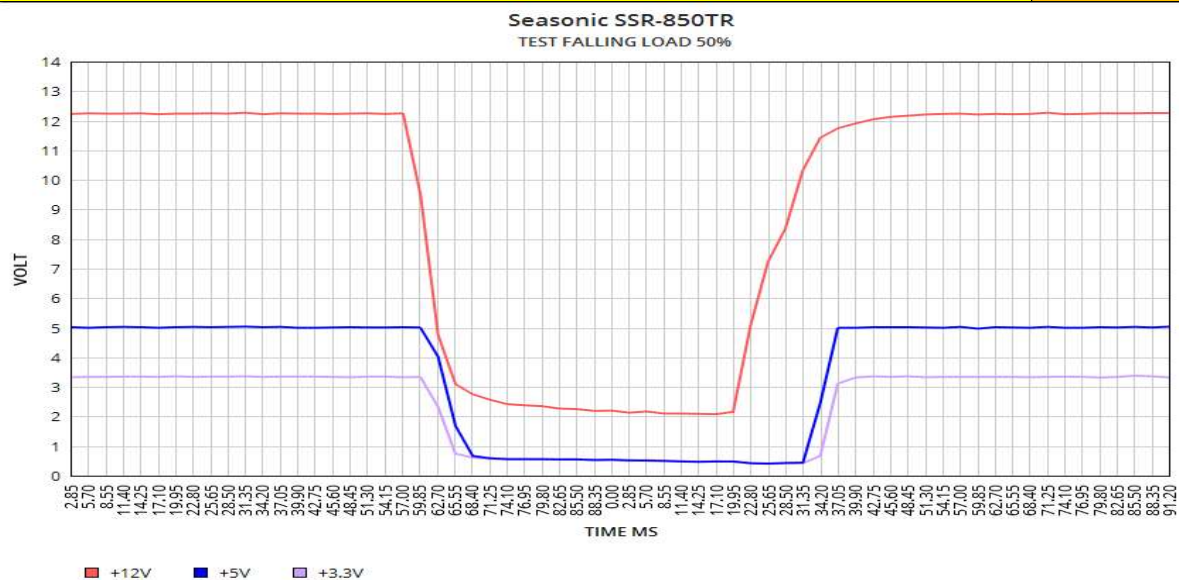
**Rating: 2.25/10**



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**Falling (Voltage) - Value [+12V-32A]-[+5V-5A]-[+3.3V-5A]-[+5Vsb-1A]**

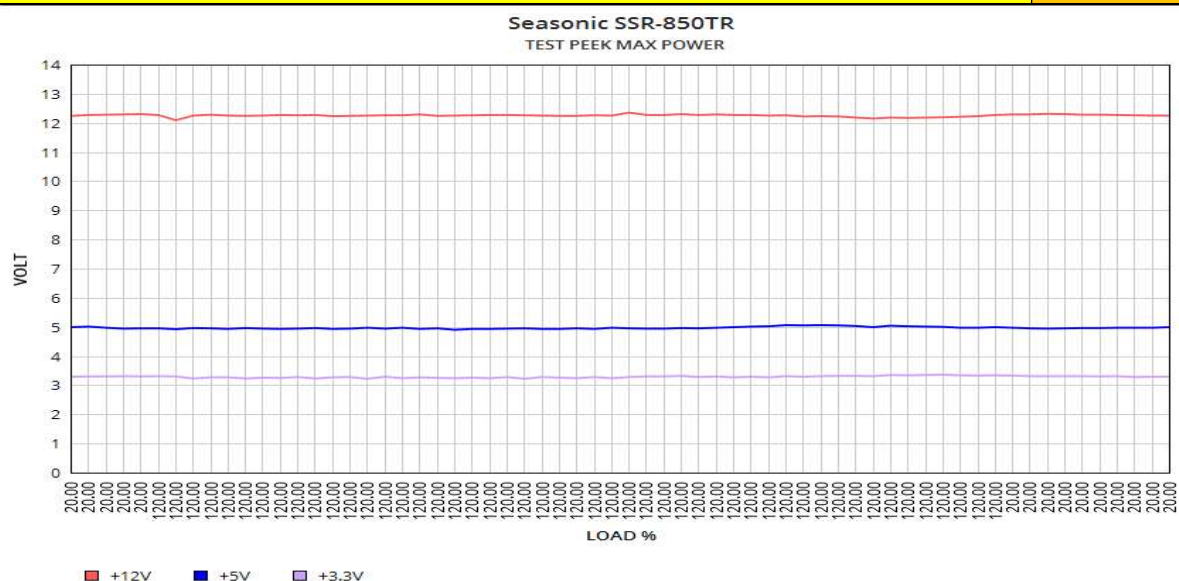
**Rating: 9.75/10**



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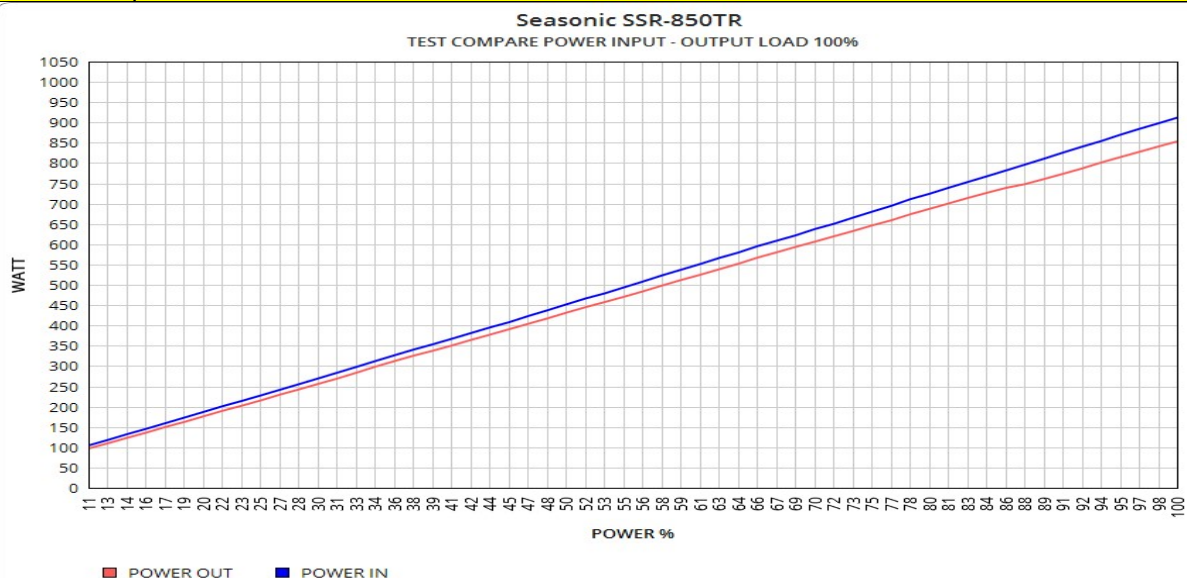
**Peek (Voltage) - Value [+12V-63A]-[+5V-10A]-[+3.3V-10A]-[+5Vsb-2A]**

**Rating: 9.58/10**



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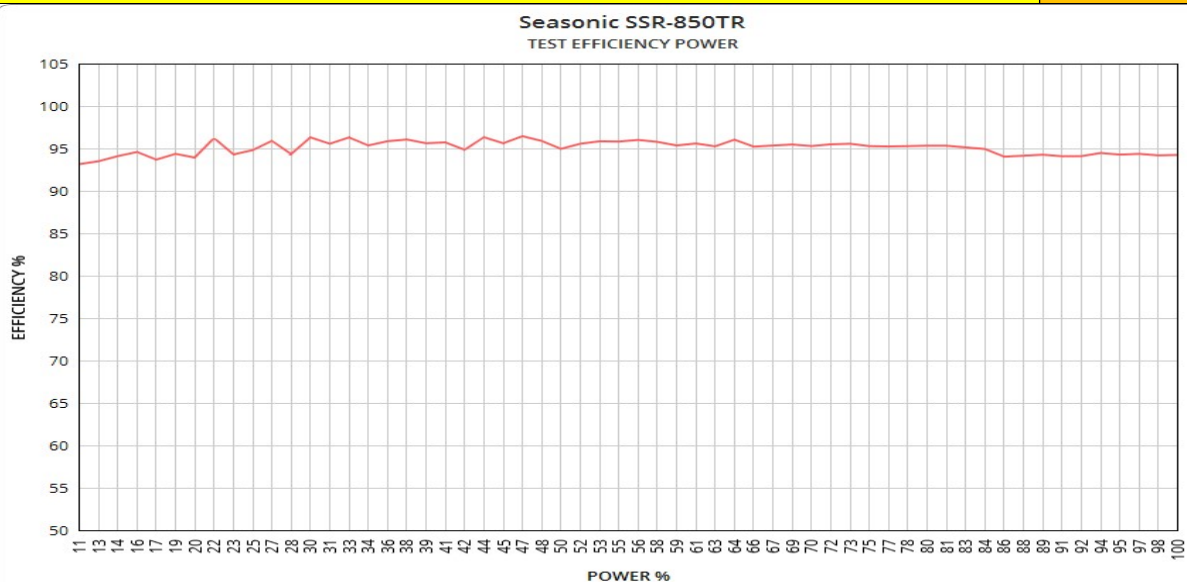
## Compare Input and Output Power



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## Efficiency Power Supply

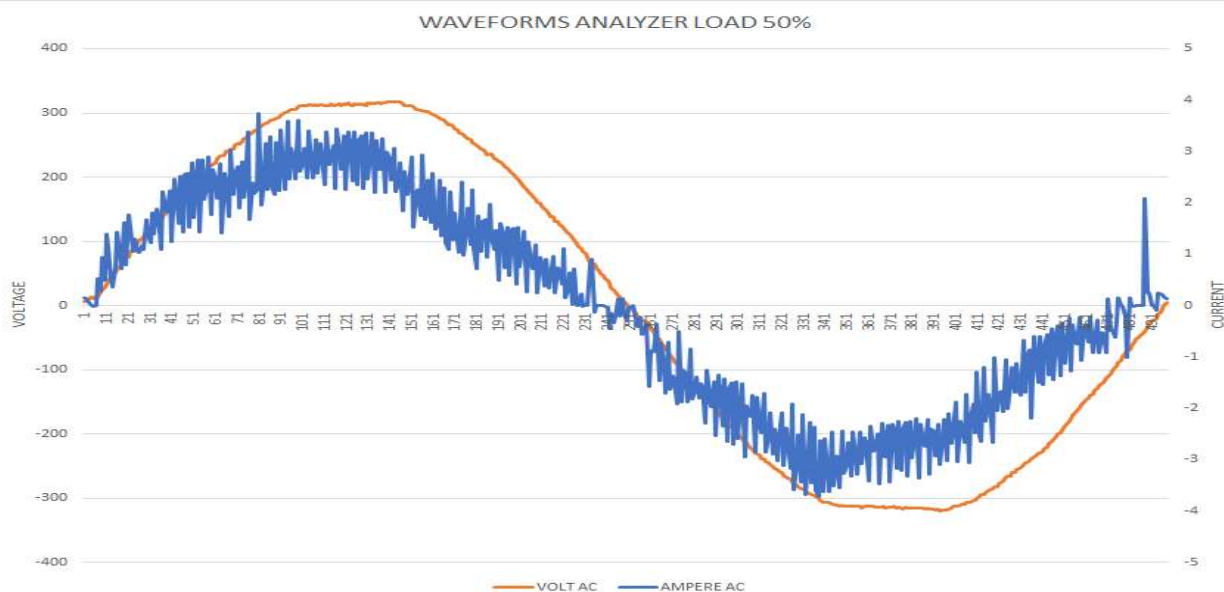
Rating: 10/10



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## Current and Voltage Waveforms Value [+12V-32A]-[+5V-5A]-[+3.3V-5A]-[+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
92.17	0.493	0.80	10%	12.2/6.20	5.1/0.96	3.3/0.96	4.9/0.11	84.51	91.69%
186.03	0.876	0.90	20%	12.2/13.0	5.1/1.96	3.3/1.96	4.9/0.21	176.69	94.98%
442.21	1.937	0.97	50%	12.2/31.8	5.0/3.99	3.3/3.95	4.9/0.53	424.69	96.04%
908.46	3.998	0.99	100%	12.3/64.0	5.0/7.92	3.3/7.92	4.8/1.05	854.65	94.04%

Watt In	I-rms	PF	Load %	Standby Efficiency +5Vsb/A				Watt Out	Efficiency
3.35	0.158	-	20%	5.14/0.54				2.78	82.98%
10.30	0.185	0.23	50%	5.13/1.60				8.21	79.70%
19.85	0.246	0.34	100%	4.99/3.09				15.45	77.83%

Standby Power IEC62301-2011 (MAX 0.5W)

PASS

0.170W

### Conclusions

#### Positive notes:

-  
-  
-

#### Negative notes:

-  
-  
-