SILVERSTONE

SilverStone GM600 2U Gold

DXGM62GU21340099

Lab ID SL60001940

Certification ID 251940

Test Result Report ID: 21PS1940A

Certificate Issue Date: Nov 19, 2021

230V

Scheme: ETA-EMI PSU





Aristeidis Bitziopoulos, Certification Body General Manager

General Information

Test Equipment

Electronic Loads	Chroma 63601-5 x2 Chroma 63600-2 Chroma 63640-80-80 x10 Chroma 63610-80-20
AC Sources	Chroma 6530, APM SP300VAC4000W-P, GW Instek ASR-3500
Power Analyzers	Rohde & Schwarz HMC8015 & NPA701
Oscilloscopes	Picoscope 4444, Siglent SDS2104X PLUS
Sound Analyzer	Bruel & Kjaer 2270 G4
Microphone	Bruel & Kjaer Type 4955-A
Temperature Logger	Picoscope TC-08
Tachometer	UNI-T UT372
Multimeters	Keysight 34465A
EMI Analyzer	TekBox TBMR-110M-EU
Isolation Transformer	4kVA
UPS	FSP Champ Tower 3kVA, CyberPower OLS3000E 3kVA
Testing Methodology	Cybenetics PSU Test Protocol

DUT Information(Non-accredited measurements)

Product Identification Details	
Brand	SilverStone
Model	GM600 2U Gold
OEM/ODM	TC Sure Star Computer Co.
Serial Number	DXGM62GU21340099
Product Specifications	
Manufacturer-Provided Information	
□□□□ (Vrms)	100-240
□□□□ (Arms)	13-6
□□□□ (Hz)	47-63

□□□□ (W)	600
Operating Temperature (Continuous Full Load) (°C)	
□□	2U
□□□□	Fixed cables
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
□□	40mm Double Ball Bearing Fan (04028DA-12S-AUG)
□□□□□	✗
Cybenetics Testing Information	
Lab ID	SL60001940
Date of receipt	Sep 17, 2021
Testing Date	Nov 18, 2021
Report Issued Date	Nov 19, 2021
□□□□□	SST-2M0600FCGD-A
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

□□□□

□		12V	5VSB
□□□□	□□	50	3.5
	□	600	17.5
□□□□□ (W)		600	

Test Results

Temperature & Compliance Info

□□□□ (°C /°F)	28-32 / 82.4-89.6

Performance Summary 230V

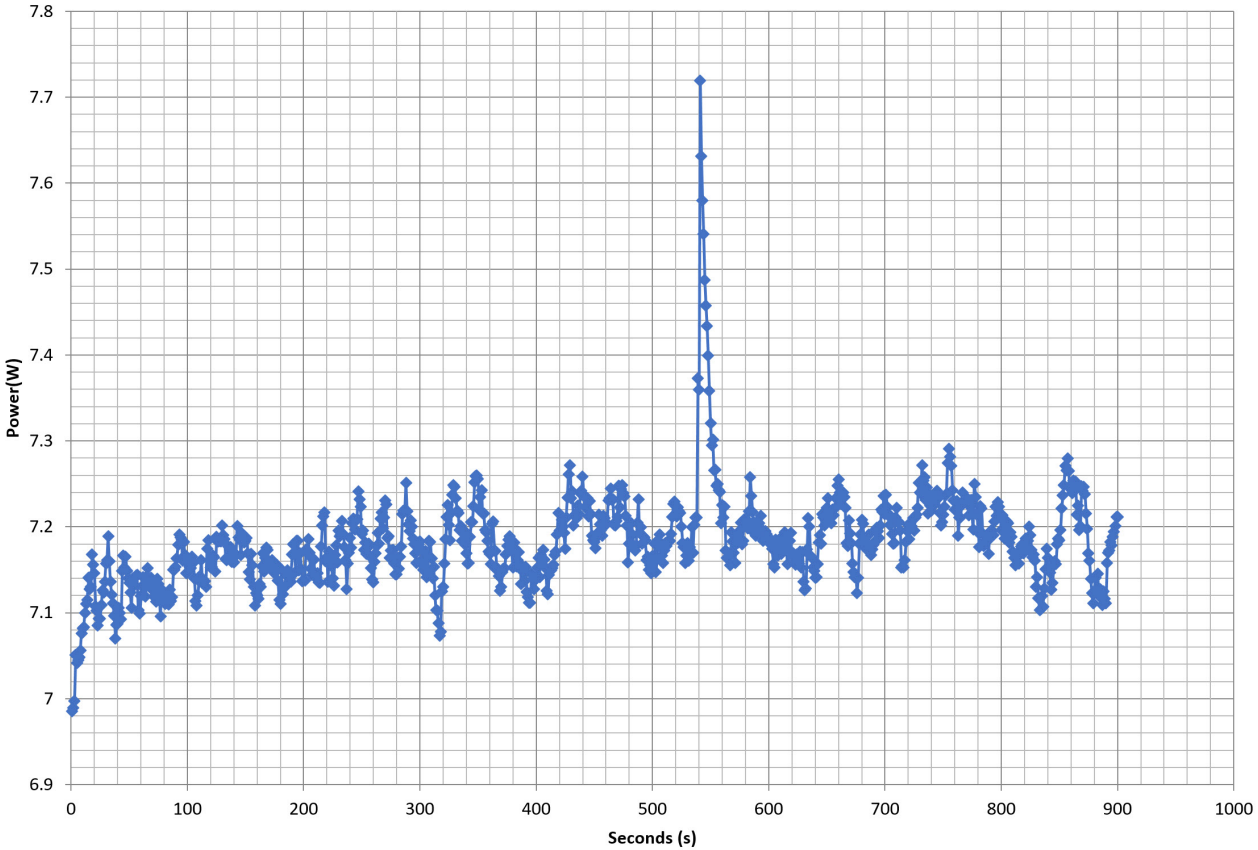
Accredited		
□□□□ (>1450 load combinations)		89.318%
PF□□□ (>1450 Load Combinations)		0.934
Efficiency With 10W (≤500W) or 2% (>500W) Load		-
□□□□□□		7.2112W
Non-Accredited		
12V Ripple (Full Load)		144.95mV
5VSB Ripple (Full Load)		45.74mV
12V Load Regulation		1.31%
5VSB Load Regulation		6.08%
Inrush Current		90.730A
□□□□ & PG□□		7.20ms
AC Loss to PWR_OK Hold Up Time		19.00ms
PWR_OK Inactive to DC Loss Delay		-11.80ms
PSU Timings: T1 (20% / 100%)	193.0ms	195.0ms
PSU Timings: T3 (20% / 100%)	255.0ms	255.0ms

□□□□ & PG□□

Hold-Up Time (ms)	7.2
AC Loss to PWR_OK Hold Up Time (ms)	19
PWR_OK Inactive to DC Loss Delay (ms)	-11.8

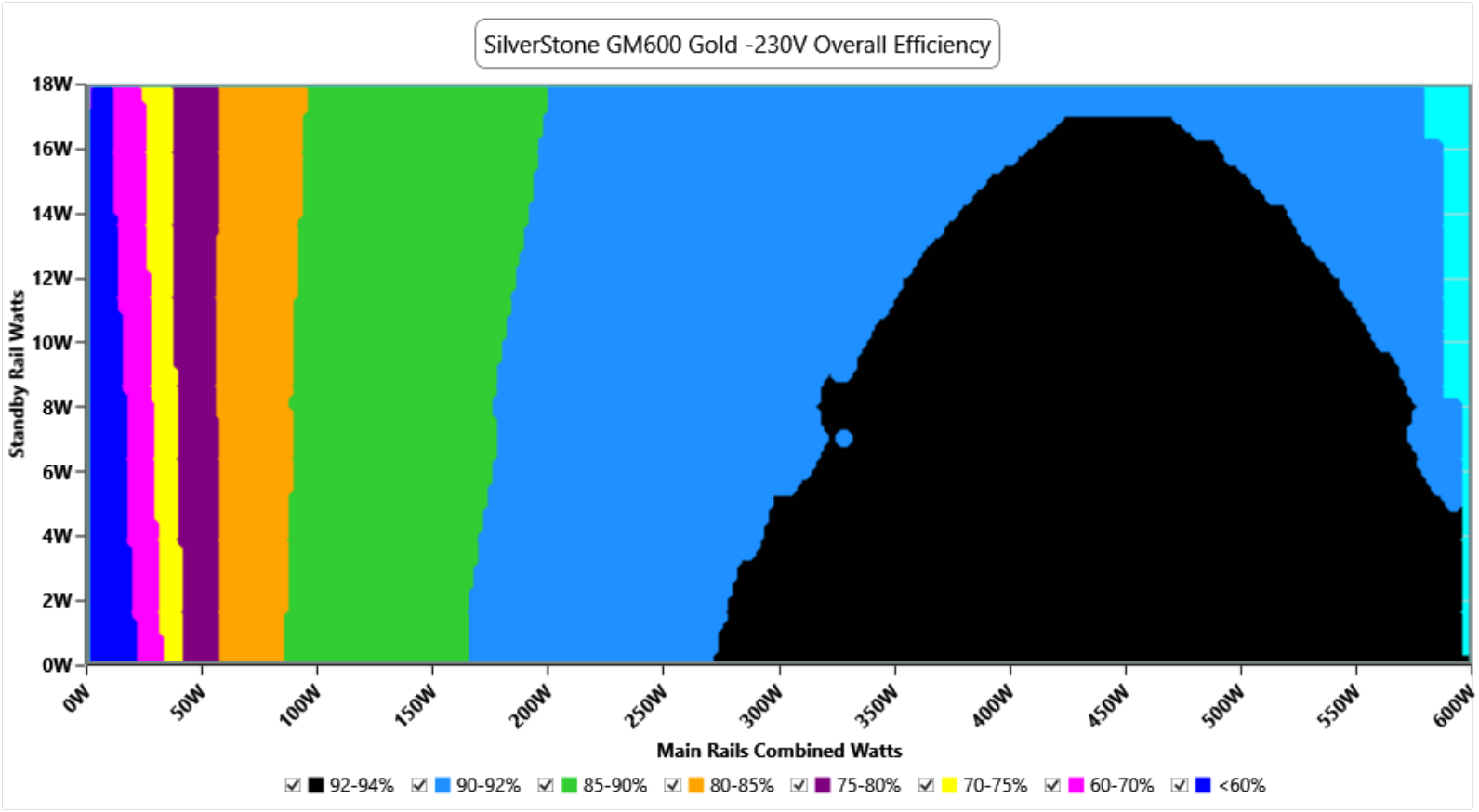
Graphs 230V

Power - DXGM62GU21340099 - 15/11/2021 - 09:03



□□□□□□

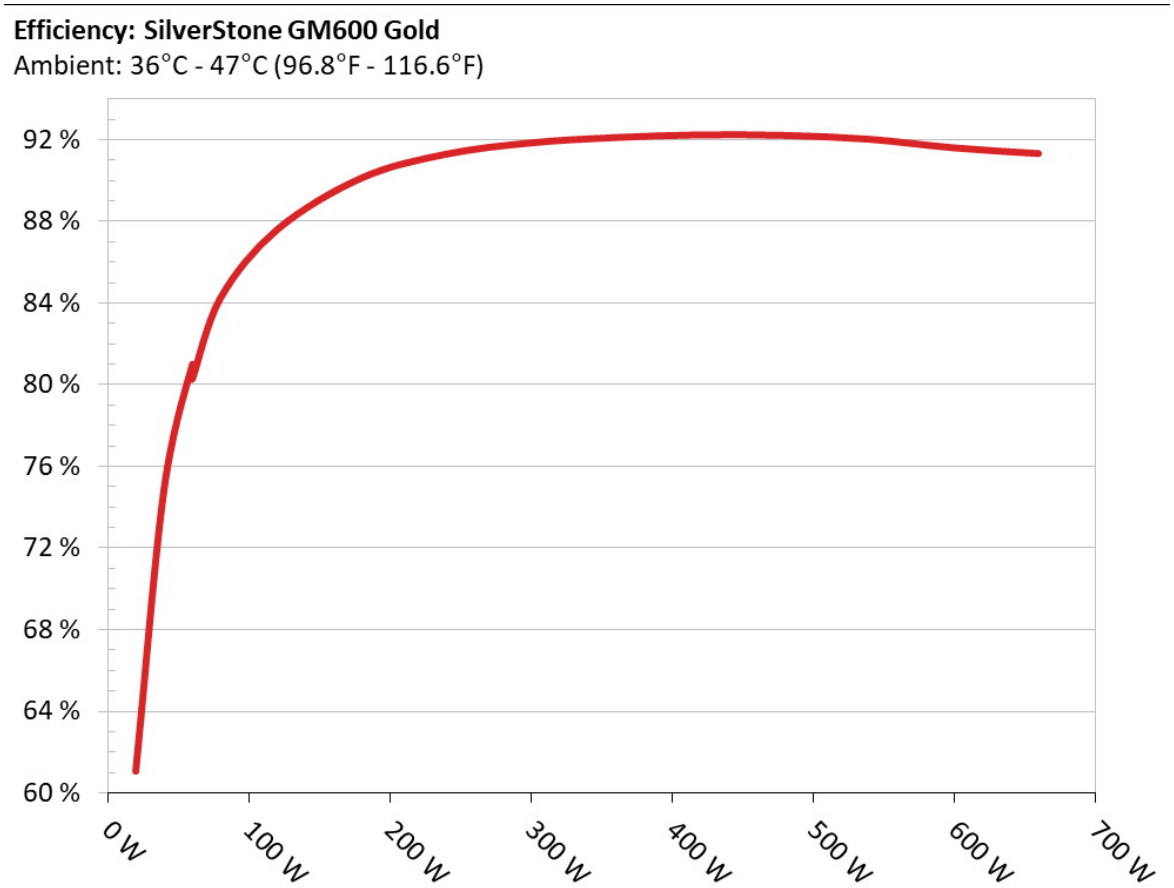
230V



□□

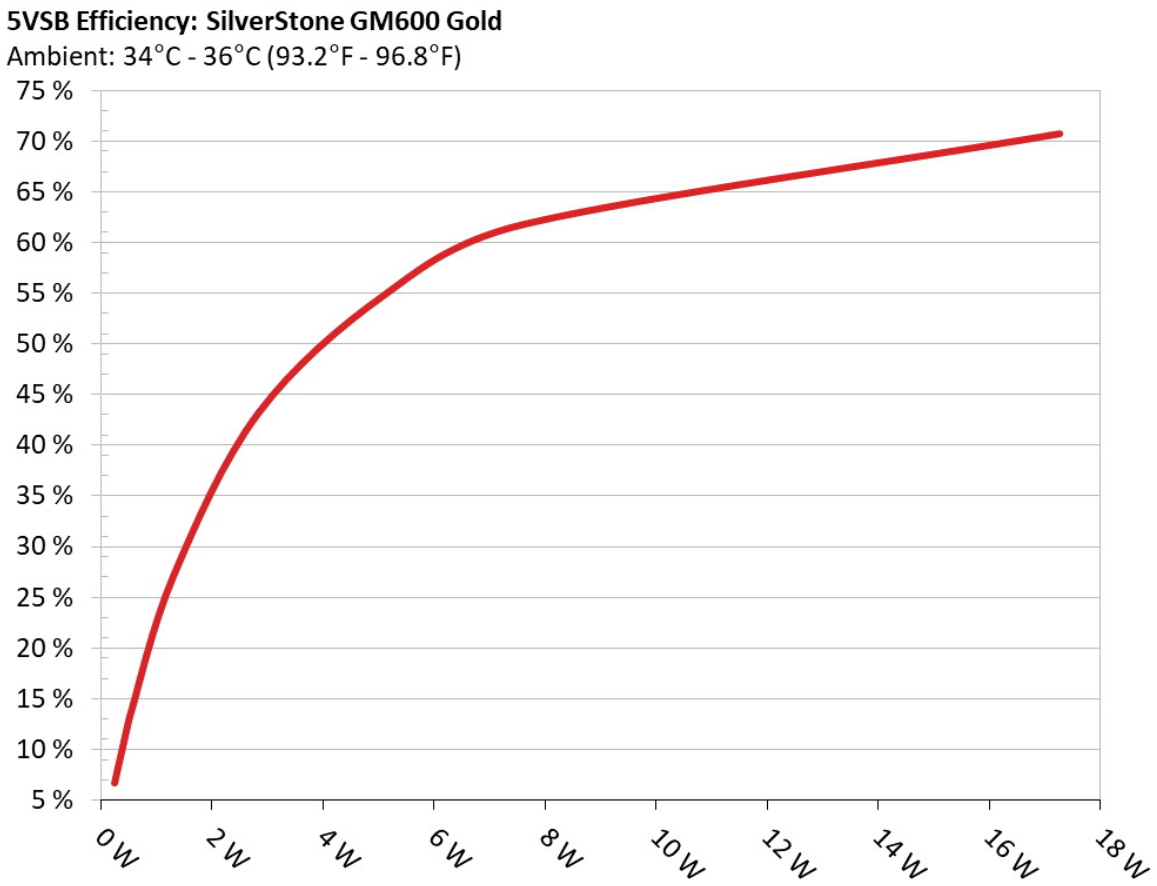
This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

Indicative Performance



The PSU`s efficiency under high ambient temperatures with 115V and 230V input. For this graph the results of the 10-110% load regulation table are used

5Vsb□□□□



□□

This graph depicts the efficiency levels of the 5VSB rail with 115V and 230V input

□□□□ □□ 5Vsb □□ (ErP Lot3/6 & CEC) 230V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	0.045A	0.235W	6.683%	0.086
	5.22V	3.516W		230.27V

2	0.09A	0.468W	12.348%	0.092
	5.201V	3.79W		230.27V
3	0.55A	2.822W	43.167%	0.143
	5.133V	6.538W		230.28V
4	1A	5.097W	54.852%	0.182
	5.098V	9.293W		230.28V
5	1.5A	7.608W	61.806%	0.213
	5.073V	12.31W		230.28V
6	3.499A	17.254W	70.739%	0.276
	4.931V	24.392W		230.28V

Supplementary Tests (For Reference)

10-110%□□□□ 230V

□□	Main □	□□ □	DC/AC (□)	□□	□□ (□□ /□□)	PF/AC □□
10%	4.544A	0.986A	59.992	80.266%	38.58°C	0.817
	12.101V	5.071V	74.742		42.13°C	230.27V
20%	9.430A	1.182A	119.976	87.568%	39.3°C	0.897
	12.087V	5.073V	137.009		43.21°C	230.27V
30%	14.325A	1.385A	179.937	90.105%	40.24°C	0.933
	12.072V	5.054V	199.697		44.42°C	230.27V
40%	19.236A	1.589A	239.975	91.276%	40.69°C	0.947
	12.059V	5.034V	262.91		45.25°C	230.27V
50%	24.153A	1.794A	299.94	91.828%	41.29°C	0.958
	12.045V	5.015V	326.631		46.31°C	230.29V
60%	29.053A	2A	359.433	92.089%	42.04°C	0.967
	12.028V	4.996V	390.312		47.64°C	230.29V
70%	34.007A	2.208A	419.583	92.219%	43.05°C	0.972
	12.015V	4.978V	454.986		49.27°C	230.3V
80%	38.999A	2.314A	479.332	92.194%	43.65°C	0.975
	11.996V	4.968V	519.919		50.47°C	230.29V

90%	44.073A	2.419A	539.871	92.007%	44.65°C	0.978
	11.977V	4.958V	586.774		52.33°C	230.29V
100%	48.712A	3.592A	599.78	91.587%	45.95°C	0.98
	11.953V	4.871V	654.875		54.54°C	230.29V
110%	53.860A	3.597A	659.83	91.307%	46.76°C	0.983
	11.926V	4.864V	722.652		56.2°C	230.29V

The results above are not used in the certification process

20-80□□□□□ 230V

□□	Main □	□□ □	DC/AC (□)	□□	□□ (□□ /□□)	PF/AC □□
10W	1.568A	0.194A	19.988	61.054%	35.67°C	0.608
	12.110V	5.167V	32.739		36.87°C	230.27V
20W	3.180A	0.291A	39.993	74.849%	36.26°C	0.747
	12.104V	5.149V	53.432		37.69°C	230.27V
30W	4.793A	0.39A	59.992	80.936%	36.6°C	0.816
	12.100V	5.131V	74.122		38.52°C	230.27V
40W	6.400A	0.488A	79.916	84.212%	37.23°C	0.854
	12.095V	5.122V	94.898		39.52°C	230.27V

The results above are not used in the certification process

□□□□ 230V

Test	Main Rail	Standby Rail	Pass/Fail
10% Load	32.9 mV	18.5 mV	Pass
20% Load	30.4 mV	29.1 mV	Pass
30% Load	32.6 mV	31.0 mV	Pass
40% Load	39.6 mV	31.0 mV	Pass
50% Load	46.5 mV	33.0 mV	Pass
60% Load	51.9 mV	36.7 mV	Pass
70% Load	71.4 mV	39.0 mV	Pass
80% Load	82.2 mV	42.0 mV	Pass





90% Load	96.3 mV	45.2 mV	Pass
100% Load	145.0 mV	45.7 mV	Fail
110% Load	198.6 mV	47.1 mV	Fail

The results above are not used in the certification process

SilverStone GM600 2U Gold

Top side

Power specifications label

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在任何情况下都应提供原始测试结果文档的网站链接

CYBENETICS LTD Syrou 6, Latsia, 2231, Nicosia Cyprus
www.cybenetics.com - info@cybenetics.com