SILVERSTONE

SilverStone GM800 Silver

Serial Number DXGM80SU22070001

Lab ID SL80001977

Certification ID 251977

Test Result Report ID: 22PS1977A

Certificate Issue Date: Feb 14, 2022

115V 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	GM800 Silver
OEM/ODM	TC Sure Star Computer Co.
Serial Number	DXGM80SU22070001
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	12-6
Rated Frequency (Hz)	47-63

Rated Power (W)	800
Operating Temperature (Continuous Full Load) (°C)	
Type	1U
Cable Design	Fixed cables
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	40mm Magnetic Levitation Bearing Fan (FD124020UB-N)
Semi-Passive Operation	✗
Cybenetics Testing Information	
Lab ID	SL80001977
Date of receipt	-
Testing Date	Feb 14, 2022
Report Issued Date	Feb 14, 2022
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors(Non-accredited measurements)

Captive Cables				
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (490mm)	1	1	18-20AWG	No
8 pin EPS12V (490mm)	2	2	18AWG	No
6 pin PCIe (490mm)	1	1	18AWG	No
6 pin PCIe (430mm)	1	1	18AWG	No
4-pin Molex (490mm+150mm+150mm)	3	9	18AWG	No
4-pin Molex (490mm+150mm+150mm) / FDD (+150mm)	1	3 / 1	18-22AWG	No

Power Specifications

Rail		12V	12VSB
Max. Power	Amps	65	3.5
	Watts	780	17.5
Total Max. Power (W)		800	

Test Results

Temperature & Compliance Info

Temperature Range (°C /°F)	28-32 / 82.4-89.6

Performance Summary 230V

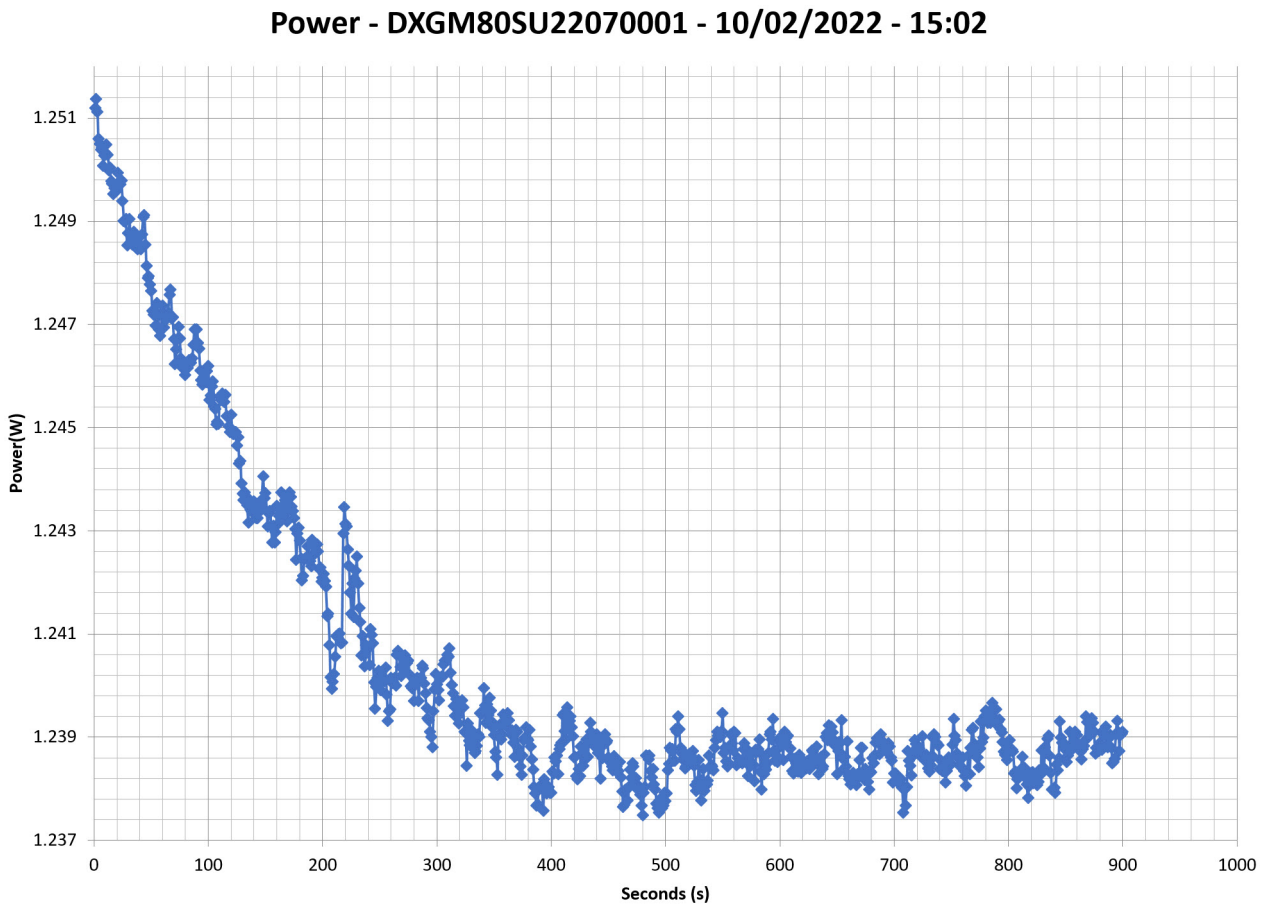
Accredited		
Average Efficiency (>1450 load combinations)		86.392%
Average PF (>1450 Load Combinations)		0.926
Efficiency With 10W (≤500W) or 2% (>500W) Load		-
Standby Power Consumption		1.2391W
Non-Accredited		
12V Ripple (Full Load)		54.90mV
5VSB Ripple (Full Load)		17.10mV
12V Load Regulation		1.20%
5VSB Load Regulation		8.53%
Inrush Current		54.950A
Hold-Up Time & PWR_OK Signal		14.70ms
AC Loss to PWR_OK Hold Up Time		12.70ms
PWR_OK Inactive to DC Loss Delay		2.00ms
PSU Timings: T1 (20% / 100%)	123.0ms	121.0ms
PSU Timings: T3 (20% / 100%)	261.0ms	268.0ms

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	14.7
AC Loss to PWR_OK Hold Up Time (ms)	12.7
PWR_OK Inactive to DC Loss Delay (ms)	2

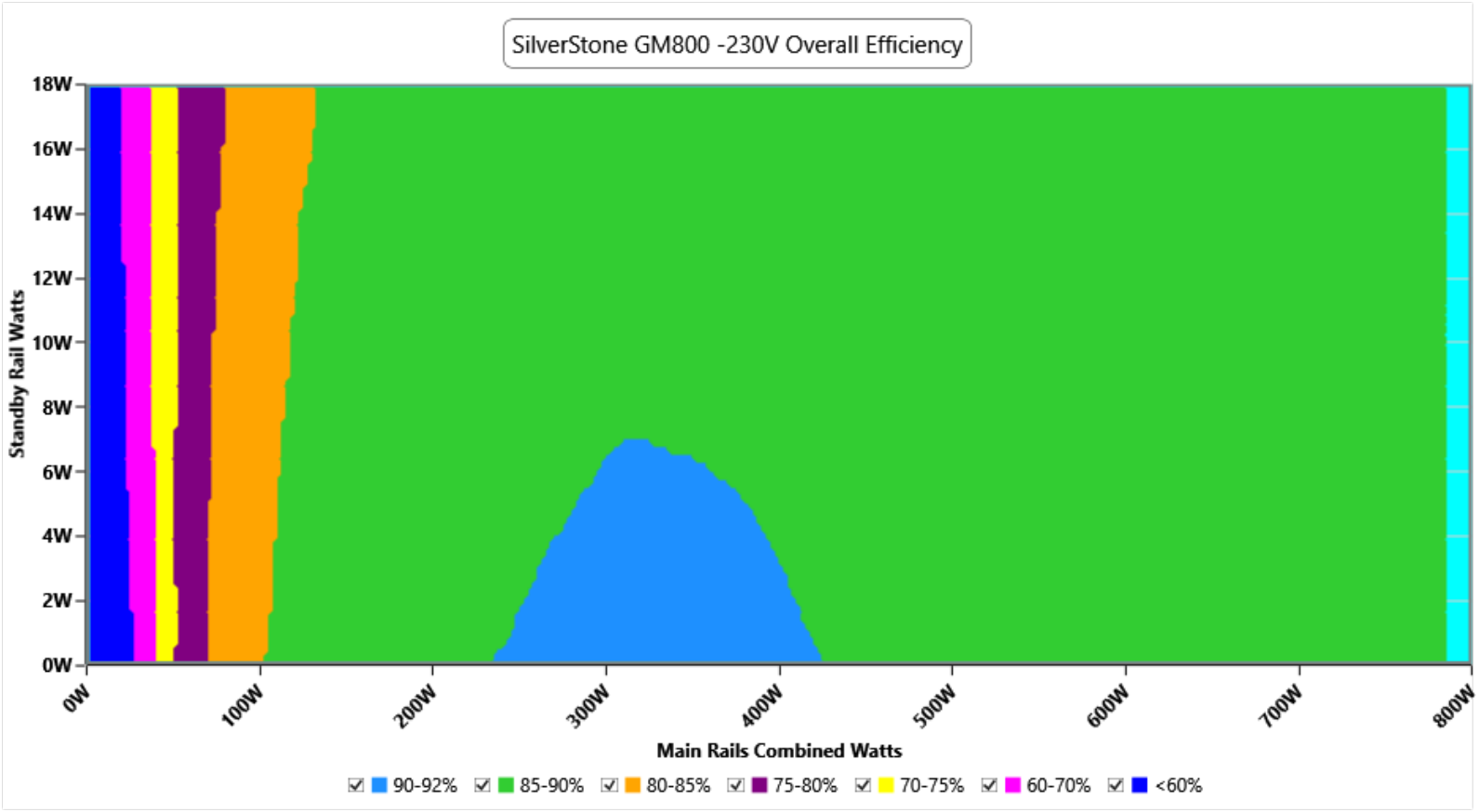
Vampire Power

Graphs 230V



Efficiency Graph

230V

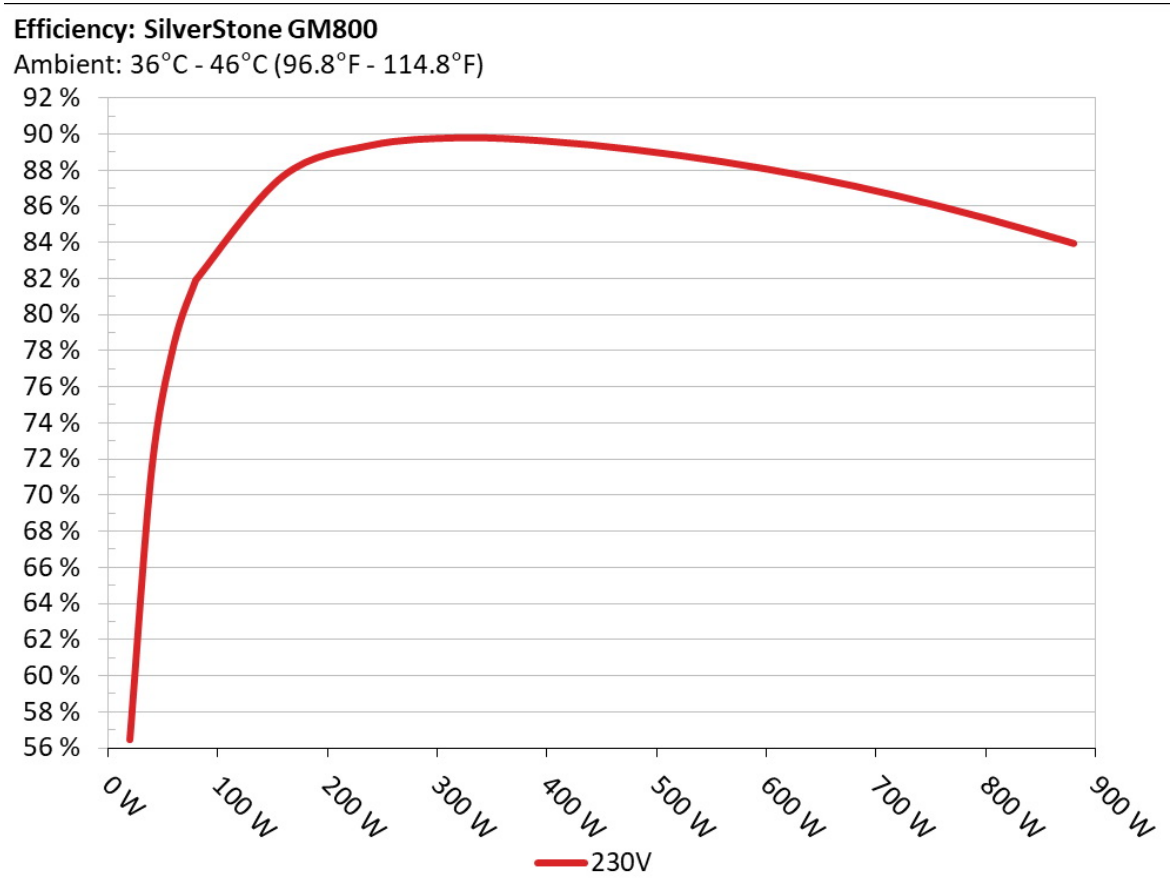


INFO

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

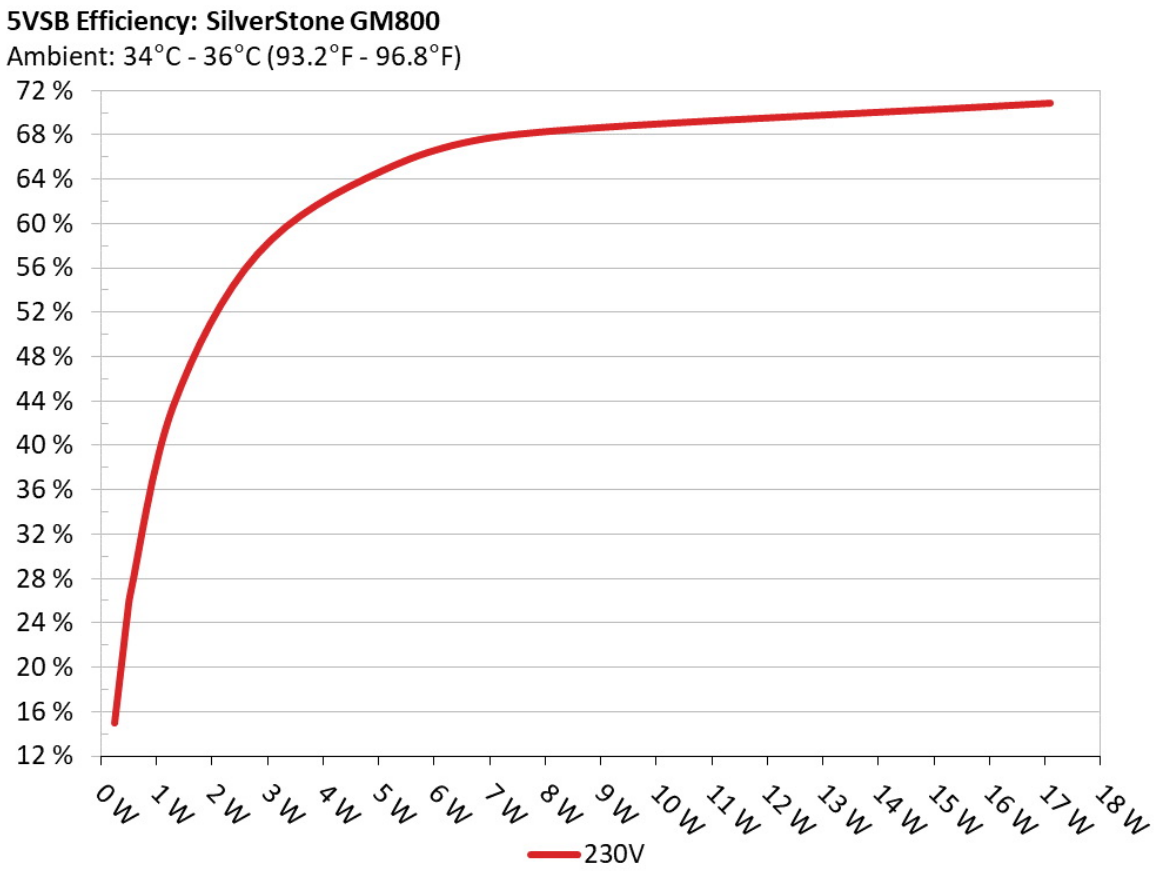
Efficiency under high ambient temperature



INFO

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 Efficiency



INFO

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

5VSB Efficiency (ERP LOT 3/6 & CEC) 230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.235W	14.988%	0.049
	5.231V	1.568W		230.32V

2	0.09A	0.47W	24.985%	0.058
	5.224V	1.881W		230.34V
3	0.55A	2.811W	57.301%	0.14
	5.112V	4.905W		230.29V
4	1A	5.055W	64.794%	0.201
	5.055V	7.801W		230.28V
5	1.5A	7.531W	68.111%	0.253
	5.021V	11.056W		230.27V
6	3.499A	17.1W	70.898%	0.361
	4.887V	24.119W		230.26V

Supplementary Tests (For Reference)

Typical Load Tests 230V

Test	Main Rail	Standby Rail	DC/AC (Watts)	Efficiency	Temps (In/Out)	PF/AC Volts
10%	6.220A	0.984A	79.935	81.43%	40.18°C	0.816
	12.048V	5.081V	98.165		44.97°C	230.31V
20%	12.798A	1.187A	159.966	87.69%	40.67°C	0.865
	12.030V	5.053V	182.421		45.8°C	230.3V
30%	19.380A	1.392A	239.928	89.374%	40.77°C	0.91
	12.019V	5.027V	268.453		46.38°C	230.28V
40%	25.987A	1.6A	319.971	89.79%	41.3°C	0.943
	12.005V	5V	356.357		47.31°C	230.28V
50%	32.541A	1.809A	399.145	89.607%	42.55°C	0.958
	11.989V	4.973V	445.44		49.24°C	230.27V
60%	39.194A	2A	479.257	89.134%	43.13°C	0.969
	11.975V	4.948V	537.682		50.27°C	230.27V
70%	45.866A	2.234A	559.586	88.465%	43.43°C	0.972
	11.961V	4.92V	632.555		51.18°C	230.27V
80%	52.558A	2.345A	639.333	87.624%	43.71°C	0.975
	11.945V	4.901V	729.633		51.97°C	230.27V

90%	59.334A	2.457A	719.867	86.567%	44.71°C	0.976
	11.930V	4.882V	831.576		53.8°C	230.27V
100%	65.662A	3.665A	799.782	85.336%	45.3°C	0.977
	11.914V	4.774V	937.219		55.1°C	230.27V
110%	72.476A	3.675A	879.778	83.944%	46.07°C	0.976
	11.898V	4.76V	1048.063		56.77°C	230.27V

The results above are not used in the certification process

Light Load Tests 230V

Test	Main Rail	Standby Rail	DC/AC (Watts)	Efficiency	Temps (In/Out)	PF/AC Volts
20W	1.575A	0.193A	19.991	56.488%	36.36°C	0.6
	12.056V	5.181V	35.389		39.54°C	230.32V
40W	3.194A	0.291A	39.995	71.497%	37.18°C	0.718
	12.053V	5.161V	55.94		40.62°C	230.32V
60W	4.812A	0.389A	59.992	78.33%	37.78°C	0.783
	12.051V	5.145V	76.589		41.64°C	230.33V
80W	6.426A	0.487A	79.932	81.909%	38.35°C	0.814
	12.049V	5.132V	97.587		42.61°C	230.33V

The results above are not used in the certification process

Ripple Measurements 230V

Test	Main Rail	Standby Rail	Pass/Fail
10% Load	10.9 mV	8.8 mV	Pass
20% Load	12.2 mV	9.1 mV	Pass
30% Load	14.0 mV	8.2 mV	Pass
40% Load	17.2 mV	9.0 mV	Pass
50% Load	23.3 mV	9.1 mV	Pass
60% Load	28.0 mV	10.8 mV	Pass
70% Load	34.6 mV	10.4 mV	Pass
80% Load	39.6 mV	11.3 mV	Pass

90% Load	46.4 mV	12.1 mV	Pass
100% Load	54.9 mV	17.1 mV	Pass
110% Load	60.4 mV	16.2 mV	Pass

The results above are not used in the certification process

SilverStone GM800 Silver

Top side

Power specifications label

All data and graphs included in this test report can be used by any individual on the following conditions:
› It should be mentioned that the test results are provided by Cybenetics
› The link to the original test results document should be provided in any case

Cybenetics runs voluntary certification programs for power supplies - ETA for efficiency, LAMBDA for noise and SAFE for safety and correct operation - and for cooling products, with DELTA for chassis soundproofing and PHI for fan airflow and static pressure. THETA rates cooler performance on AMD AM5 and Intel LGA1851 outside ISO 17065 and accreditation scope

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