



SilverStone GM800 Silver

DXGM80SU22070001

Lab ID SL80001977

Certification ID 251977

Test Result Report ID: 22PS1977A

Certificate Issue Date: Feb 14, 2022

115V

230V

Scheme: ETA-EMI PSU



A handwritten signature in black ink, appearing to read "A. Bitziopoulos", enclosed within a large, loopy oval.

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	
□□□□ (Vrms)	100-240
□□□□ (Arms)	12-6
□□□□ (Hz)	47-63

□□□□ (W)	800
Operating Temperature (Continuous Full Load) (°C)	
□□	1U
□□□□	Fixed cables
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
□□	40mm Magnetic Levitation Bearing Fan (FD124020UB-N)
□□□□	X
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	

□□□□ (Non-accredited measurements)

□□□□				
□□	□□□□	□□□□□	Gauge	In Cable Capacitors
ATX □□ 20+4 pin (490mm)	1	1	18-20AWG	□
8 pin EPS 12V □□ (490mm)	2	2	18AWG	□
6 pin PCIe (490mm)	1	1	18AWG	□
6 pin PCIe (430mm)	1	1	18AWG	□
4-pin Molex (490mm+150mm+150mm)	3	9	18AWG	□
4-pin Molex (490mm+150mm+150mm) / FDD (+150mm)	1	3 / 1	18-22AWG	□

□□□□

□		12V	12VSB
□□□□	□□	65	3.5
	□	780	17.5
□□□□ (W)		800	

Test Results

Temperature & Compliance Info

□□□□ (°C / °F)	28-32 / 82.4-89.6
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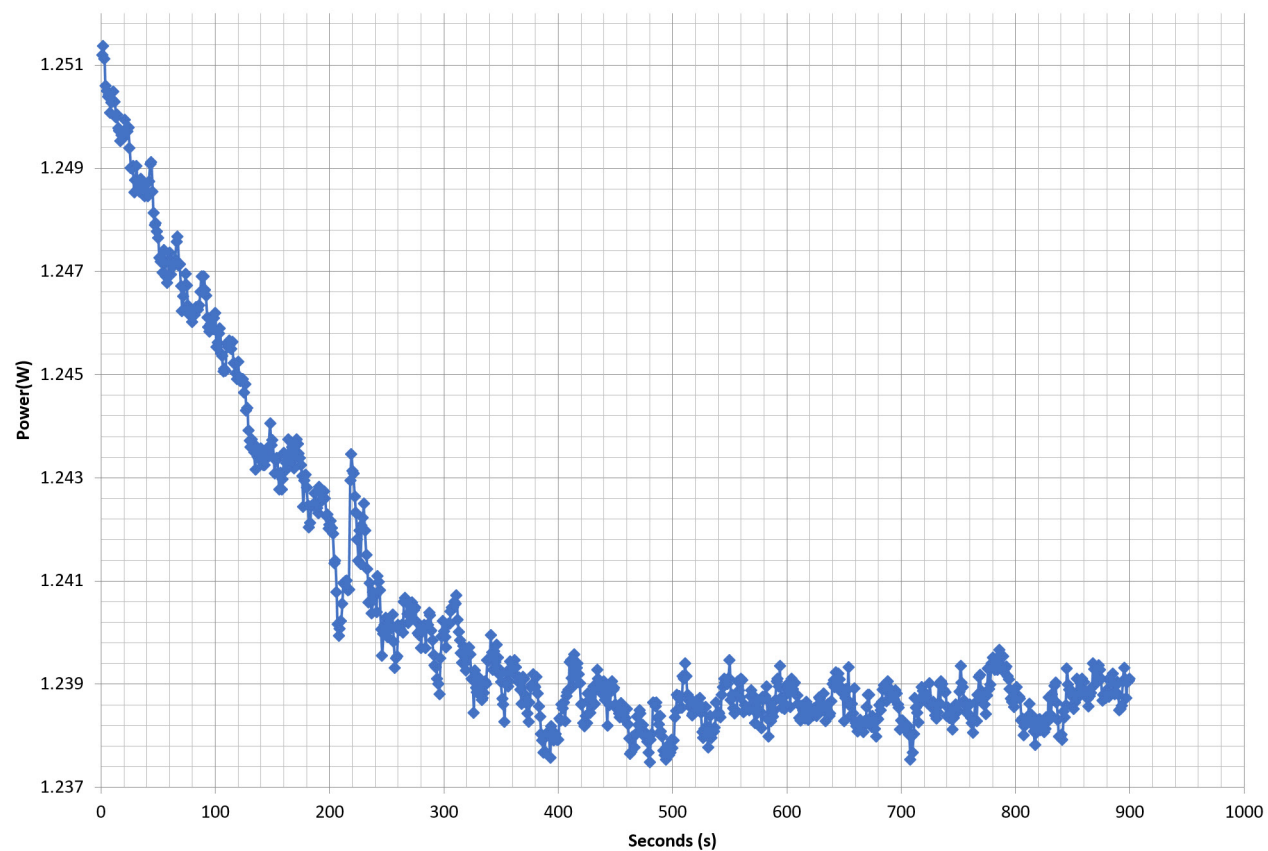
Performance Summary 230V

Accredited		
PF _{avg} (>1450 load combinations)	86.392%	
PF _{min} (>1450 Load Combinations)	0.926	
Efficiency With 10W (≤500W) or 2% (>500W) Load	-	
η _{avg}	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	
η _{min} & PG _{min}	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 (ms)	14.7
AC Loss to PWR_OK Hold Up Time (ms)	12.7
PWR_OK Inactive to DC Loss Delay (ms)	2

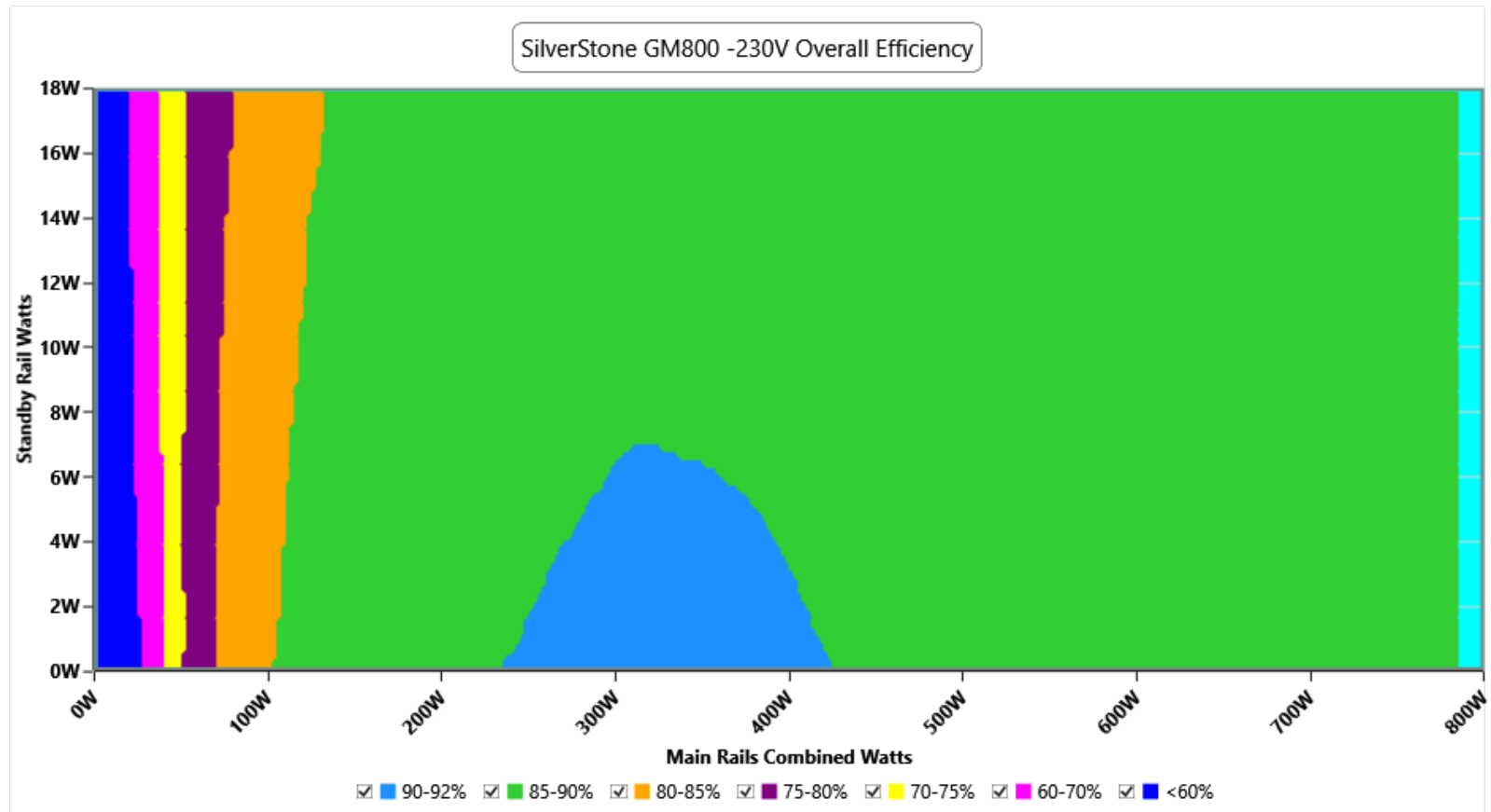
Graphs 230V

Power - DXGM80SU22070001 - 10/02/2022 - 15:02





230V



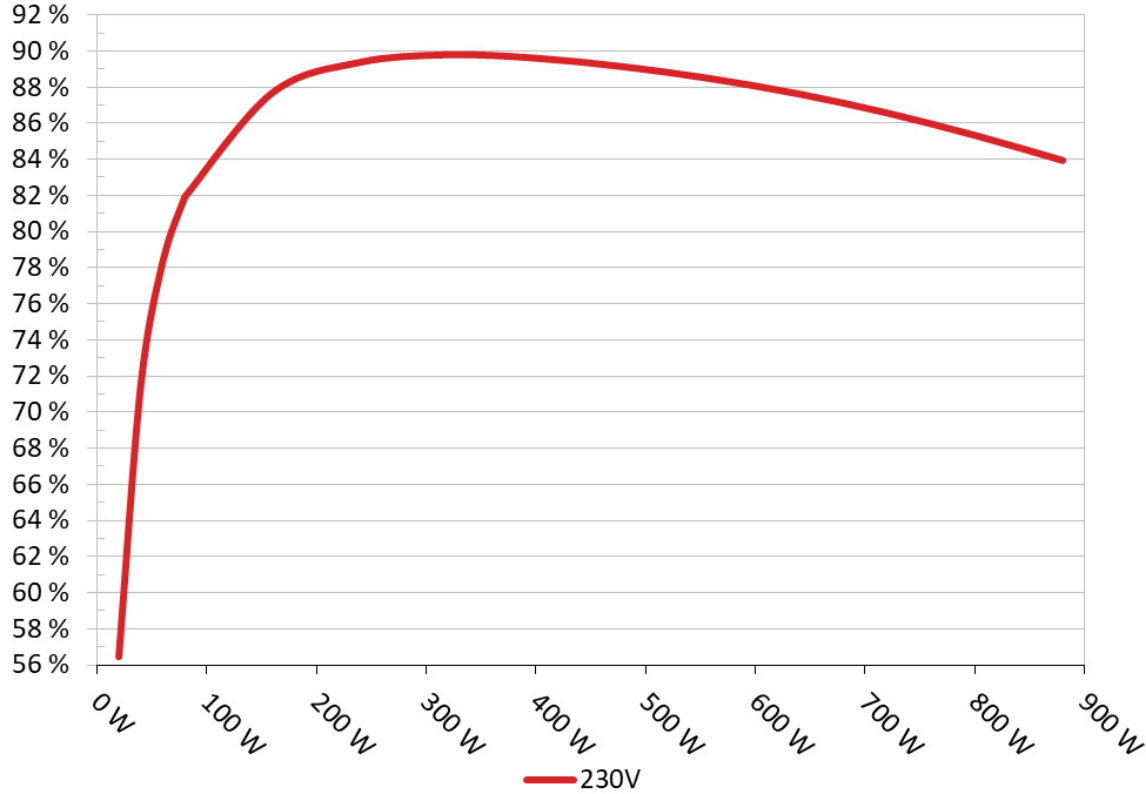
This graph depicts the PSU's efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

Indicative Performance



Efficiency: SilverStone GM800

Ambient: 36°C - 46°C (96.8°F - 114.8°F)

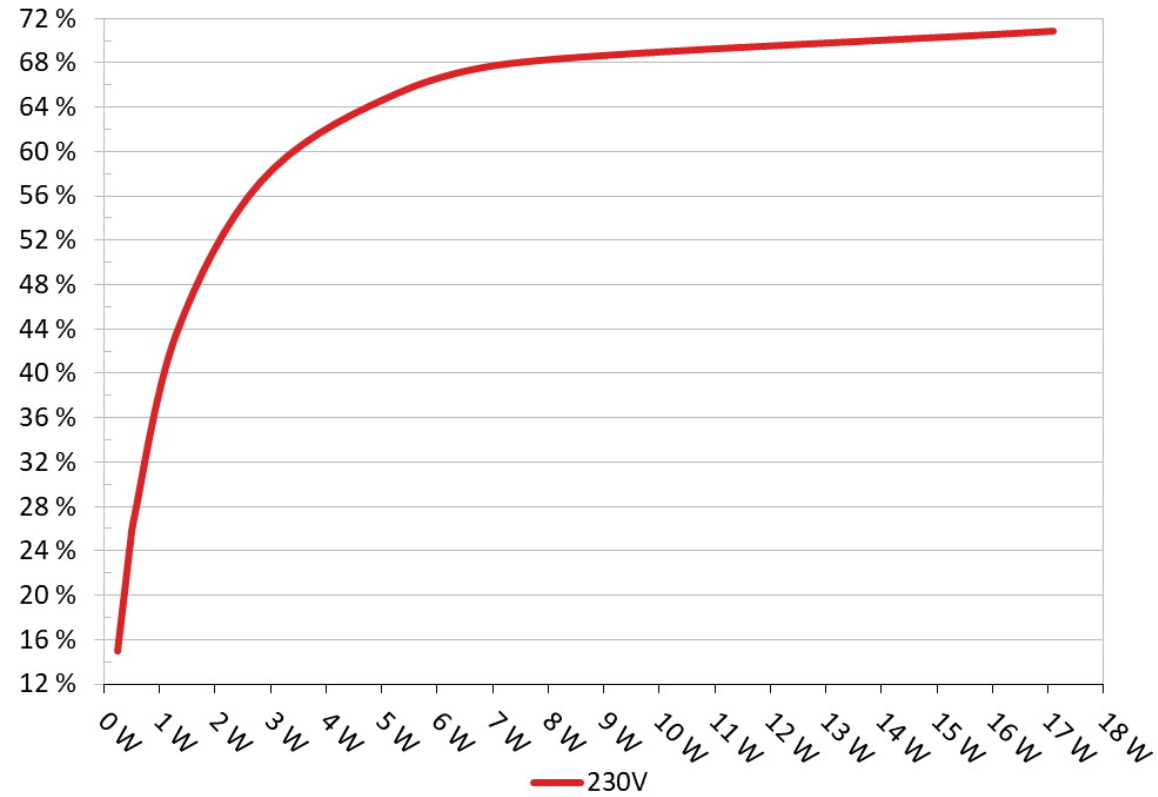


The PSU`s efficiency under high ambient temperatures with 115V and 230V input. For this graph the results of the 10-110% load regulation table are used

5Vsb

5VSB Efficiency: SilverStone GM800

Ambient: 34°C - 36°C (93.2°F - 96.8°F)



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	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)

10-110%

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 230V

□□	Main □	□□ □	DC/AC (□)	□□	□□ (□□ /□□)	PF/AC □□
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

20-80 230V

□□	Main □	□□ □	DC/AC (□ □)	□□	□□ (□□ /□□)	PF/AC □□
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

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

