Anex

SilverStone GM400 1U Bronze

Lab ID#: SL40001976
Receipt Date: -
Test Date: Feb 11, 2022

Report: 22PS1976A
Report Date: Feb 11, 2022

DUT INFORMATION

Brand	SilverStone
Manufacturer (OEM)	TC Sure Star Computer Co.
Series	Gemini
Model Number	SST-GM400-1UB
Serial Number	DXGM40BU22070001
DUT Notes	

DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	6-3
Rated Frequency (Hz)	47-63
Rated Power (W)	400
Type	1U
Cooling	40mm Magnetic Levitation Bearing Fan (FD124020SB-N)
Semi-Passive Operation	✗
Cable Design	Fixed cables

TEST EQUIPMENT

Electronic Loads	Chroma 63601-5 x4 Chroma 63600-2 x2 63640-80-80 x20 63610-80-20 x2
AC Sources	Chroma 6530, Keysight AC6804B
Power Analyzers	N4L PPA1530 x2
Sound Analyzer	Bruel & Kjaer 2270 G4
Microphone	Bruel & Kjaer Type 4955-A
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2
Tachometer	UNI-T UT372 x2
Digital Multimeter	Keysight U1273AX, Fluke 289, Keithley 2015 - THD
UPS	CyberPower OLS3000E 3kVA x2
Transformer	3kVA x2

www.cybenetics.com -info@cybenetics.com
CYBENETICS LTD. 15, Elpinikis Str. 4100 Agios Athanasios, Limassol, Cyprus

Anex

SilverStone GM400 1U Bronze

RESULTS

Temperature Range (°C /°F)	30-32 / 86-89.6
ErP Lot 3/6 Ready	✗
(EU) No 617/2013 Compliance	

230V

Average Efficiency	82.694%
Average Efficiency 5VSB	49.513%
Standby Power Consumption (W)	3.4084700
Average PF	0.903
Avg Noise Output	- dB(A)
Efficiency Rating (ETA)	BRONZE
Noise Rating (LAMBDA)	None

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	NaN	NaN	32	2.5	NaN
	Watts	NaN		384	12.5	NaN
Total Max. Power (W)		400				

HOLD-UP TIME & POWER OK SIGNAL (230V)

Hold-Up Time (ms)	14.8
AC Loss to PWR_OK Hold Up Time (ms)	9.7
PWR_OK Inactive to DC Loss Delay (ms)	5.1

Anex

SilverStone GM400 1U Bronze

CABLES AND CONNECTORS

Captive Cables

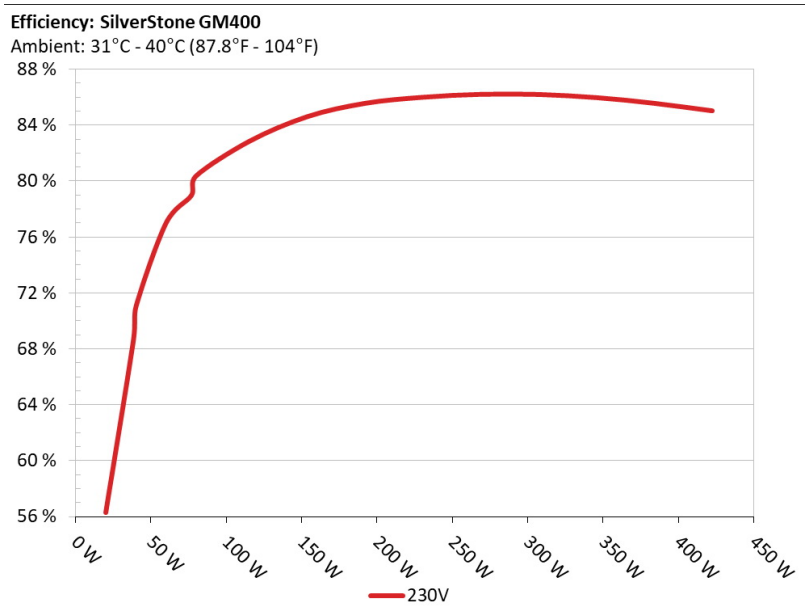
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (500mm)	1	1	18-20AWG	No
4 pin EPS12V (500mm)	1	1	18AWG	No
8 pin EPS12V (500mm)	1	1	18AWG	No
SATA (500mm+160mm+160mm)	1	3	18AWG	No
4-pin Molex (500mm+150mm+150mm)	1	3	18AWG	No
4-pin Molex (500mm+150mm) / FDD (+150mm)	1	2 / 1	18-22AWG	No

www.cybenetics.com -info@cybenetics.com
CYBENETICS LTD. 15, Elpinikis Str. 4100 Agios Athanasios, Limassol, Cyprus

Anex

SilverStone GM400 1U Bronze

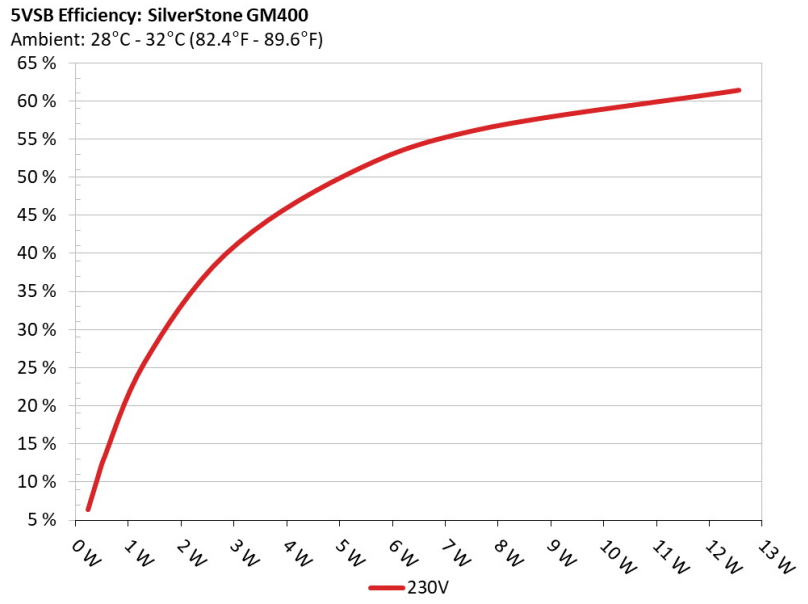
EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE



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

Anex

SilverStone GM400 1U Bronze

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.236W	6.358%	0.102
	5.238V	3.712W		230.27V
2	0.09A	0.47W	11.731%	0.11
	5.224V	4.006W		230.27V
3	0.55A	2.837W	39.863%	0.181
	5.158V	7.118W		230.24V
4	1A	5.121W	50.271%	0.237
	5.12V	10.187W		230.24V
5	1.5A	7.629W	56.212%	0.285
	5.085V	13.571W		230.24V
6	2.5A	12.552W	61.373%	0.35
	5.02V	20.453W		230.24V

www.cybenetics.com -info@cybenetics.com
CYBENETICS LTD. 15, Elpinikis Str. 4100 Agios Athanasios, Limassol, Cyprus

Anex

SilverStone GM400 1U Bronze

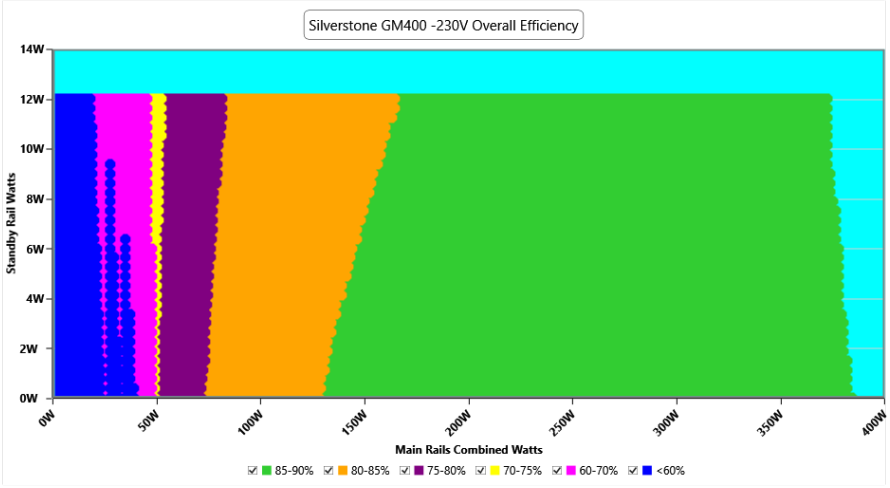
230V

www.cybenetics.com -info@cybenetics.com
CYBENETICS LTD. 15, Elpinikis Str. 4100 Agios Athanasios, Limassol, Cyprus

Anex

SilverStone GM400 1U Bronze

EFFICIENCY GRAPH 230V



INFO

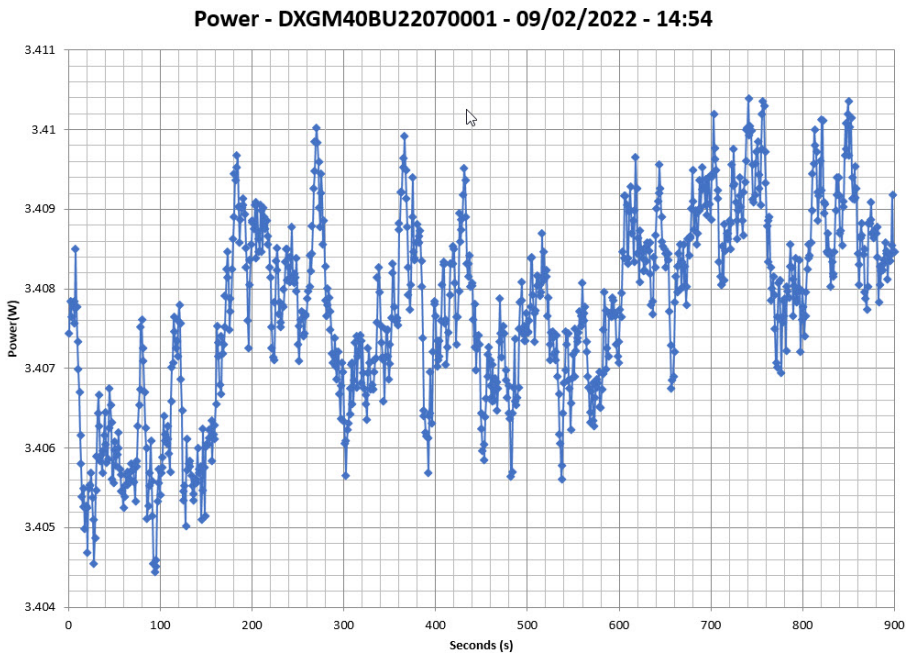
This graph depicts the PSU's efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

www.cybenetics.com -info@cybenetics.com
CYBENETICS LTD. 15, Elpinikis Str. 4100 Agios Athanasios, Limassol, Cyprus

Anex

SilverStone GM400 1U Bronze

VAMPIRE POWER -230V



INFO

This graph is generated by the PPA Standby Power Analysis software which takes full control of the power analyzer during the whole procedure. This application features all of the EN50564 & IEC62301 test limits for standby power software testing

www.cybenetics.com -info@cybenetics.com
CYBENETICS LTD. 15, Elpinikis Str. 4100 Agios Athanasios, Limassol, Cyprus

Anex

SilverStone GM400 1U Bronze

10-110% LOAD TESTS 230V

Test	Main Rail	Standby Rail	DC/AC (Watts)	Efficiency	Temps (In/Out)	PF/AC Volts
10%	2.756A	0.982A	38.408	68.681%	34.56°C	0.683
	12.123V	5.093V	55.922		38.73°C	230.24V
20%	5.845A	1.183A	76.819	78.986%	34.57°C	0.818
	12.117V	5.07V	97.256		39.01°C	230.24V
30%	8.939A	1.387A	115.188	82.852%	35.2°C	0.892
	12.102V	5.048V	139.029		39.89°C	230.24V
40%	12.045A	1.592A	153.641	84.614%	35.57°C	0.928
	12.091V	5.026V	181.579		40.51°C	230.25V
50%	15.154A	1.798A	192.023	85.57%	35.96°C	0.947
	12.077V	5.006V	224.403		41.52°C	230.25V
60%	18.281A	2A	230.447	86.006%	36.42°C	0.96
	12.060V	4.985V	267.943		42.72°C	230.25V
70%	21.412A	2.217A	268.858	86.216%	36.9°C	0.965
	12.043V	4.964V	311.842		44.24°C	230.25V
80%	24.596A	2.324A	307.298	86.202%	37.43°C	0.968
	12.026V	4.95V	356.486		45.85°C	230.25V
90%	27.808A	2.432A	345.841	85.975%	38.57°C	0.973
	12.005V	4.935V	402.256		47.58°C	230.25V
100%	30.977A	2.539A	383.913	85.572%	39.01°C	0.975
	11.990V	4.924V	448.641		49.44°C	230.25V
110%	34.224A	2.541A	422.287	85.035%	40.45°C	0.975
	11.974V	4.919V	496.605		51.71°C	230.24V

www.cybenetics.com -info@cybenetics.com
CYBENETICS LTD. 15, Elpinikis Str. 4100 Agios Athanasios, Limassol, Cyprus

Anex

SilverStone GM400 1U Bronze

20-80W LOAD TESTS 230V

Test	Main Rail	Standby Rail	DC/AC (Watts)	Efficiency	Temps (In/Out)	PF/AC Volts
20W	1.566A	0.193A	20.001	56.274%	31.36°C	0.569
	12.128V	5.175V	35.542		34.4°C	230.22V
40W	3.176A	0.291A	40.007	71.01%	32.65°C	0.686
	12.126V	5.156V	56.339		35.83°C	230.22V
60W	4.785A	0.389A	60.005	77.005%	33.55°C	0.763
	12.123V	5.141V	77.924		36.98°C	230.22V
80W	6.392A	0.488A	79.95	80.372%	33.62°C	0.826
	12.116V	5.127V	99.476		37.31°C	230.23V

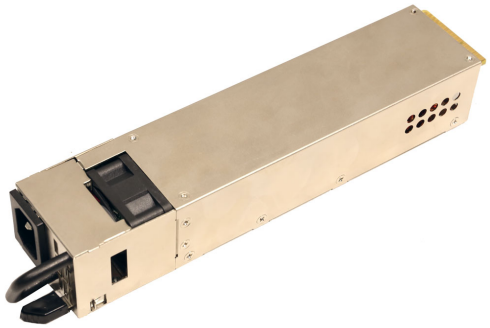
RIPPLE MEASUREMENTS 230V

Test	Main Rail	Standby Rail	Pass/Fail
10% Load	14.7 mV	6.2 mV	Pass
20% Load	16.2 mV	6.4 mV	Pass
30% Load	17.0 mV	6.9 mV	Pass
40% Load	24.8 mV	7.7 mV	Pass
50% Load	23.6 mV	8.1 mV	Pass
60% Load	22.7 mV	8.4 mV	Pass
70% Load	23.7 mV	9.4 mV	Pass
80% Load	26.4 mV	10.9 mV	Pass
90% Load	28.5 mV	11.9 mV	Pass
100% Load	32.2 mV	13.5 mV	Pass
110% Load	35.3 mV	14.6 mV	Pass

www.cybenetics.com -info@cybenetics.com
CYBENETICS LTD. 15, Elpinikis Str. 4100 Agios Athanasios, Limassol, Cyprus

Anex

SilverStone GM400 1U Bronze



Top side

Power specifications label

CERTIFICATIONS 230V

CYBENETICS
REDUNDANT
BRONZE
230v