

Anex

DUT Notes

EFFICIENCY AND NOISE LEVEL CERTIFICATIONS

Vetroo 1000G5

Lab ID#: VT10002164 Receipt Date: Mar 23, 2023 Test Date: Apr 3, 2023

Report: 23PS2164A

Report Date: Mar 31, 2023

DUT INFORMATION	
Brand	Vetroo
Manufacturer (OEM)	Andyson
Series	
Model Number	1000G5
Serial Number	

DUT SPECIFICATIONS				
Rated Voltage (Vrms)	100-240			
Rated Current (Arms)	12-6			
Rated Frequency (Hz)	50-60			
Rated Power (W)	1000			
Туре	ATX12V			
Cooling	120mm Fluid Dynamic Bearing Fan (HA1225M12F-Z)			
Semi-Passive Operation	✓ (selectable)			
Cable Design	Fully Modular			

TEST EQUIPMENT

Electronic Loads	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, APM SP300VAC4000W-P
Power Analyzers	RS HMC8015, N4L PPA1530, N4L PPA5530
Oscilloscopes	Picoscope 4444, Rigol DS7014, 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, Keithley 2015 - THD
UPS	FSP Champ Tower 3kVA, CyberPower OLS3000E 3kVA
Isolation Transformer	4KVA

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Vetroo 1000G5

RESULTS	
Temperature Range (°C /°F)	30-32 / 86-89.6
ErP Lot 3/6 Ready	J
(EU) No 617/2013 Compliance	1
ALPM (Alternative Low Power Mode) compatible	1
ATX v3.0 PSU Power Excursion	✓

115V		230V		
Average Efficiency	89.571%	Average Efficiency	91.495%	
Efficiency With 10W (≤500W) or 2% (>500W)	78.899	Average Efficiency 5VSB	80.134%	
Average Efficiency 5VSB	81.274%	Standby Power Consumption (W)	0.1242000	
Standby Power Consumption (W)	0.0607000	Average PF	0.949	
Average PF	0.980	Avg Noise Output	21.73 dB(A)	
Avg Noise Output	21.67 dB(A)	Efficiency Rating (ETA)	PLATINUM	
Efficiency Rating (ETA)	PLATINUM	Noise Rating (LAMBDA)	А	
Noise Rating (LAMBDA)	А			

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	25	83.3	3	0.3
	Watts	125		999.6	15	3.6
Total Max. Power (W)		1000				

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

Hold-Up Time (ms)	22.5
AC Loss to PWR_OK Hold Up Time (ms)	17.4
PWR_OK Inactive to DC Loss Delay (ms)	5.1

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CABLES AND CONNECTORS

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Modular Cables				
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (600mm)	1	1	18AWG	No
4+4 pin EPS12V (700mm)	2	2	18AWG	No
6+2 pin PCle (500mm+150mm)	2	4	18AWG	No
6+2 pin PCle (500mm)	2	2	18AWG	No
12+4 pin PCle (610mm) (600W)	1	1	16-26AWG	No
SATA (455mm+150mm+150mm+150mm)	2	8	18AWG	No
4-pin Molex (455mm+150mm+150mm)	2	6	18AWG	No
FDD Adapter (+100mm)	1	1	20AWG	No
AC Power Cord (1400mm) - C13 coupler	1	1	18AWG	-

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General Data	
Manufacturer (OEM)	Andyson
PCB Type	Double- Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	NTC Thermistor SCK205R0 & Relay HF46F-G
Bridge Rectifier(s)	2x HY2110
APFC MOSFETs	2x Infineon IPP50R140CP (550V, 15A @ 100°C, Rds(on): 0.140hm)
APFC Boost Diode	1x CREE C3D08060A(600V, 8A @ 152°C)
Bulk Cap(s)	2x Nippon Chemi-Con (420V, 470uF, 2000h @ 105°C, KMQ)
Main Switchers	4x Infineon IPP60R190P6 (600V, 12.7A @ 100°C, Rds(on): 0.190hm)
APFC Controller	Champion CM6500UNX
Resonant Controller	Champion CU6901VPA
Topology	Primary side: APFC, Half-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	8x Infineon BSC014N04LS (40V, 100A @ 100°C, Rds(on): 1.4mOhm)
5V & 3.3V	DC-DC Converters: 4x Infineon BSC018NE2LS (25V, 97A @ 100°C, Rds(on): 1.4mOhm) PWM Controller(s): ANPEC APW7160A
Filtering Capacitors	Electrolytic: 7x Nichicon (4-10,000h @ 105°C, HE) 3x Rubycon (6-10,000h @ 105°C, ZLH) 2x Chemi-Con (4-10,000h @ 105°C, KY) Polymer: 7x Polycap (470µf 16V 105°C), 12 x FPcap, 5x Chemi-Con
Supervisor IC	Weltrend WT7527RA (OCP, OVP, UVP, SCP, PG)
Fan Model	120mm Fluid Dynamic Bearing Fan (HA1225M12F-Z) DC12V 0.45A
5VSB Circuit	
Rectifier	1x PFR10V45CT SBR (45V, 10A)
Standby PWM Controller	Excelliance MOS Corp EM8569C

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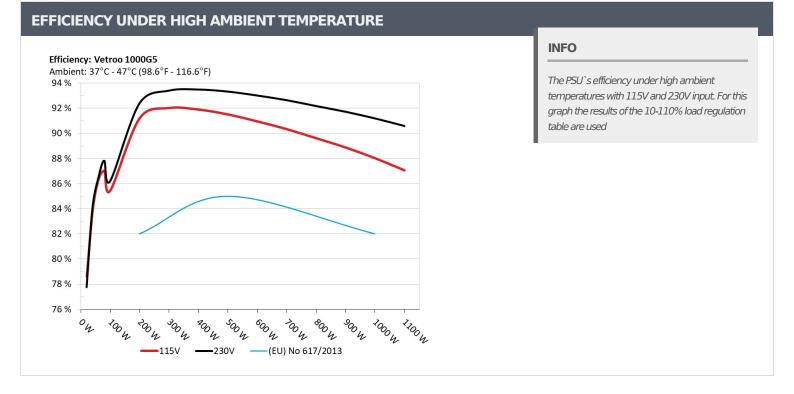
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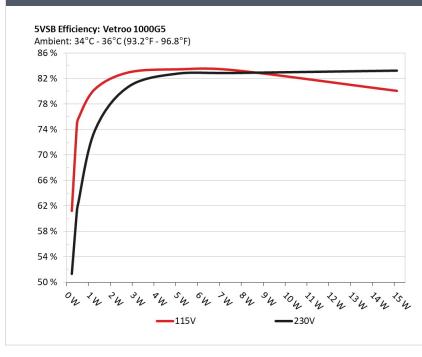


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5VSB EFFICIENCY



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INFO

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

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5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)					
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts	
1	0.045A	0.231W		0.049	
1	5.143V	0.38W	60.757%	114.88V	
2	0.09A	0.463W	741000/	0.08	
2	5.141V	0.624W	74.188%	114.88V	
	0.55A	2.819W	22 420 ² /	0.307	
3	5.126V	3.42W	82.438%	114.88V	
4	1A	5.111W	02 02 02 0/	0.396	
4	5.111V	6.164W	82.923%	114.87V	
-	1.5A	7.641W	02 7000/	0.436	
5	5.094V	9.229W	82.798%	114.87V	
6	ЗА	15.123W	70 5520/	0.498	
6	5.042V	19.009W	79.553%	114.87V	

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

5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts	
1	0.045A	0.231W	F0 0070/	0.018
	5.142V	0.455W	50.827%	229.78V
2	0.09A	0.463W	C0 C050/	0.029
2	5.141V	0.764W	60.665%	229.77V
2	0.55A	2.819W	00.170%	0.127
3 5.126V	5.126V	3.516W	80.179%	229.77V
	1A	5.111W	02.2000/	0.202
4	5.111V	6.212W	82.266%	229.77V
-	1.5A	7.641W	02.25%	0.265
5	5.094V	9.279W	82.35%	229.77V
6	ЗА	15.128W	0.358	
6	5.043V	18.289W	82.717%	229.77V

Test

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115V

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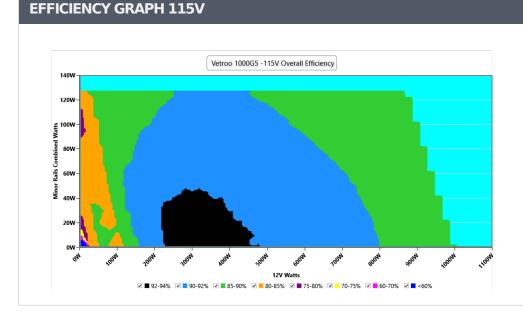
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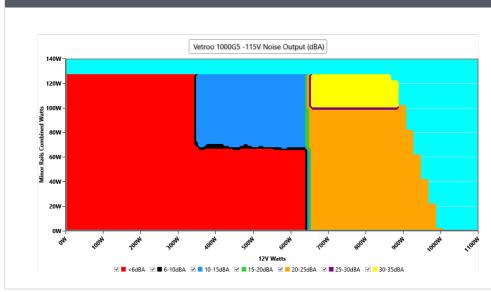
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INFO

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

NOISE GRAPH 115V



INFO

The PSU's noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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VAMPIRE POWER -115V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.90 V	114.82 V	113.85 V	114.97 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.02 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.419	1.417	1.340	1.422	1.490	PASS
Mains Voltage THD:	0.22 %	0.17 %	N/A	0.30 %	2.00 %	PASS
Real Power:	0.061 W	-0.005 W	N/A	0.089 W	N/A	N/A
Apparent Power:	7.955 W	7.922 W	N/A	8.001 W	N/A	N/A
Power Factor:	0.007	N/A	N/A	N/A	N/A	N/A

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

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Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1.00/	6.423A	1.993A	1.985A	0.981A	99.968	QE 4400/		-6.0	44.39°C	0.962
10%	12.202V	5.017V	3.324V	5.094V	116.993	85.448%	0	<6.0	40.29°C	114.83V
20%	13.848A	2.991A	2.98A	1.182A	199.904	01 2160/	0	-60	45.29°C	0.976
20%	12.204V	5.014V	3.321V	5.077V	219.158	91.216%		<6.0	40.95°C	114.8V
30%	21.650A	3.491A	3.479A	1.383A	299.943	02.0260/	0	<6.0	45.99°C	0.979
50%	12.189V	5.012V	3.32V	5.06V	325.933	92.026%	92.02076 0	<0.0	41.37°C	114.77V
400/	29.390A	3.992A	3.978A	1.586A	399.418	01.0070/	470	-6.0	41.7°C	0.982
40%	12.188V	5.01V	3.318V	5.044V	434.588	91.907%	473	<6.0	46.74°C	114.73V
E00/	36.812A	4.993A	4.976A	1.79A	499.143	01 5100/	792	14.5	42.43°C	0.982
50%	12.187V	5.007V	3.316V	5.027V	545.395	91.519%	192		47.89°C	114.71V
c00/	44.293A	5.996A	5.976A	1.996A	599.682	00.0610/	788	14.4	42.91°C	0.983
60%	12.189V	5.003V	3.313V	5.01V	659.275	90.961%		14.4	48.93°C	114.66V
700/	51.690A	7.001A	6.978A	2.203A	699.43	00.2450/	783	14.2	43.4°C	0.985
70%	12.194V	4.999V	3.31V	4.993V	774.176	90.345%	785	14.3	50.49°C	114.63V
000/	59.160A	8A	7.98A	2.309A	799.433	00 6220/	1242	31.9	43.84°C	0.986
80%	12.197V	4.997V	3.308V	4.979V	891.993	89.623%	1342		51.94°C	114.59V
000/	66.934A	8.506A	8.469A	2.416A	899.24	00.0060/	1242	21.0	44.98°C	0.987
90%	12.203V	4.995V	3.306V	4.965V	1011.68	88.886%	1343	31.9	54.12°C	114.54V
1000/	74.468A	9.01A	8.989A	3.04A	999.253	00 0010/	1341	21.0	45.9°C	0.988
100%	12.214V	4.993V	3.304V	4.934V	1135.11	88.031%	1341	31.9	56.22°C	114.51V
1100/	81.930A	10.017A	10.086A	3.047A	1099.887	07.0620/	1501	24.7	46.55°C	0.989
110%	12.225V	4.99V	3.301V	4.922V	1263.335	87.062%	1501	34.7	57.41°C	114.46V
	0.113A	15.081A	15.009A	0A	126.291	00.05.00/	704	14 5	41.39°C	0.97
CL1	12.246V	4.993V	3.305V	5.108V	156.001	80.956%	794	14.5	46.84°C	114.82V
с р	0.113A	25.039A	0A	0A	126.249	70.0110/	1254	22.0	40.31°C	0.971
CL2	12.228V	4.987V	3.314V	5.114V	159.791	79.011%	1354	32.0	47.33°C	114.81V
	0.113A	0A	24.966A	0A	83.897	70.0500/	1051	22.0	40.29°C	0.963
CL3	12.217V	5.009V	3.305V	5.115V	118.4	70.859%	1351	32.0	49.39°C	114.83V
	81.983A	0A	0A	0A	999.844	00.0000/	1500	24.7	45.37°C	0.988
CL4						88.698%	1500	34.7	56.31°C	

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20-80W LOAD TESTS 115V										
Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
2014	1.240A	0.5A	0.5A	0.2A	20.264	70 0000/			39.57°C	0.81
20W	12.155V	5.023V	3.328V	3.328V 5.129V 25.779 78.606% 0	U	<6.0	36.52°C	114.86V		
40144	2.720A	0.7A	0.7A	0.3A	40.434	02.0420/	0	<6.0	40.77°C	0.912
40W	12.155V	5.022V	3.328V	5.124V 48.169 83.942% 0	0	<0.0	37.43°C	114.85V		
6011	4.224A	0.9A	0.9A	0.4A	60.876	06 4010/	1% 0	<6.0	42.33°C	0.94
60W	12.151V	5.021V	3.327V	5.118V	70.457	86.401%			38.58°C	114.85V
	5.622A	1.095A	1.091A	0.489A	79.92	07.0000/	0	<6.0	43.09°C	0.952
80W	12.148V	5.019V	3.326V	5.113V	91.861	87.003%			39.18°C	114.84V

RIPPLE MEASUREMENTS 115V

12V				
	5V	3.3V	5VSB	Pass/Fail
9.46mV	13.23mV	12.53mV	14.94mV	Pass
9.98mV	13.34mV	12.28mV	15.29mV	Pass
11.30mV	13.59mV	12.69mV	16.47mV	Pass
10.90mV	17.98mV	14.22mV	15.86mV	Pass
11.10mV	14.92mV	12.94mV	17.59mV	Pass
10.49mV	14.92mV	13.10mV	18.77mV	Pass
11.67mV	15.28mV	14.38mV	19.69mV	Pass
12.69mV	16.20mV	18.31mV	46.49mV	Pass
10.69mV	16.35mV	15.75mV	21.79mV	Pass
14.86mV	17.22mV	16.27mV	24.54mV	Pass
15.50mV	18.33mV	16.71mV	28.41mV	Pass
11.02mV	15.51mV	17.23mV	13.59mV	Pass
11.66mV	21.45mV	13.40mV	13.40mV	Pass
10.79mV	13.69mV	20.36mV	12.22mV	Pass
15.47mV	17.72mV	14.80mV	14.83mV	Pass
	9.98mV 11.30mV 10.90mV 11.10mV 10.49mV 11.67mV 12.69mV 14.86mV 15.50mV 11.02mV 11.02mV 11.66mV 10.79mV	9.98mV 13.34mV 11.30mV 13.59mV 10.90mV 17.98mV 11.10mV 14.92mV 10.49mV 14.92mV 11.67mV 15.28mV 12.69mV 16.20mV 14.86mV 17.22mV 15.50mV 18.33mV 11.02mV 15.51mV 11.02mV 15.51mV 11.66mV 21.45mV	9.98mV 13.34mV 12.28mV 11.30mV 13.59mV 12.69mV 10.90mV 17.98mV 14.22mV 11.10mV 14.92mV 12.94mV 10.49mV 14.92mV 13.10mV 10.49mV 14.92mV 13.10mV 11.67mV 15.28mV 14.38mV 12.69mV 16.20mV 18.31mV 12.69mV 16.35mV 15.75mV 14.86mV 17.22mV 16.27mV 15.50mV 18.33mV 16.71mV 15.50mV 15.51mV 17.23mV 11.02mV 13.69mV 20.36mV	9.98mV 13.34mV 12.28mV 15.29mV 11.30mV 13.59mV 12.69mV 16.47mV 10.90mV 17.98mV 14.22mV 15.86mV 11.10mV 14.92mV 12.94mV 17.59mV 10.49mV 14.92mV 12.94mV 17.59mV 11.10mV 14.92mV 13.10mV 18.77mV 11.67mV 15.28mV 14.38mV 19.69mV 12.69mV 16.20mV 18.31mV 46.49mV 12.69mV 16.35mV 15.75mV 21.79mV 14.86mV 17.22mV 16.27mV 24.54mV 15.50mV 18.33mV 16.71mV 28.41mV 11.02mV 15.51mV 17.23mV 13.59mV 11.66mV 21.45mV 13.40mV 13.40mV

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230V

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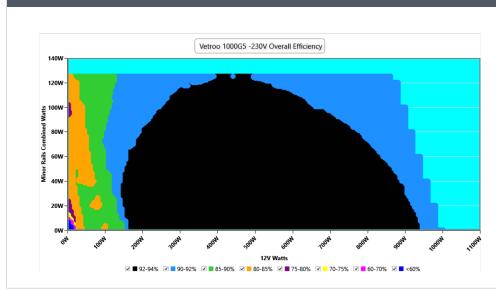
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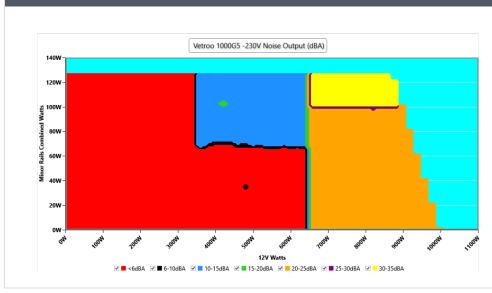
EFFICIENCY GRAPH 230V



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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

NOISE GRAPH 230V



INFO

The PSU's noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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VAMPIRE POWER -230V

Detailed Results										
	Average	Min	Limit Min	Max	Limit Max	Result				
Mains Voltage RMS:	229.76 V	229.70 V	227.70 V	229.83 V	232.30 V	PASS				
Mains Frequency:	50.00 Hz	49.99 Hz	49.50 Hz	50.01 Hz	50.50 Hz	PASS				
Mains Voltage CF:	1.417	1.416	1.340	1.418	1.490	PASS				
Mains Voltage THD:	0.16 %	0.13 %	N/A	0.20 %	2.00 %	PASS				
Real Power:	0.124 W	0.079 W	N/A	0.175 W	N/A	N/A				
Apparent Power:	27.332 W	27.295 W	N/A	27.371 W	N/A	N/A				
Power Factor:	0.003	N/A	N/A	N/A	N/A	N/A				

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

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Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100/	6.420A	1.993A	1.985A	0.982A	99.974	06 20 40/	0	<6.0	44.45°C	0.852
10%	12.208V	5.016V	3.324V	5.092V	115.974	86.204%			40.23°C	229.75V
200/	13.844A	2.991A	2.98A	1.182A	199.908	02 2040/	0	-6.0	45.39°C	0.923
20%	12.208V	5.014V	3.321V	5.075V	216.365	92.394%	0	<6.0	40.74°C	229.74V
200/	21.646A	3.492A	3.479A	1.384A	299.944	02 4010/	0	-6.0	46.51°C	0.948
30%	12.192V	5.011V	3.319V	5.058V	321.136	93.401%	0	<6.0	41.37°C	229.72V
400/	29.390A	3.992A	3.978A	1.587A	399.413	02 4070/	702	145	41.85°C	0.96
40%	12.188V	5.009V	3.318V	5.042V	427.239	93.487%	793	14.5	47.46°C	229.71V
-00/	36.828A	4.993A	4.976A	1.791A	499.133	02 2200/	701	14.5	42.38°C	0.966
50%	12.182V	5.006V	3.315V	5.025V	534.817	93.328%	791		48.43°C	229.69V
500/	44.316A	5.997A	5.976A	1.997A	599.665	02.0120/	700	14.4	42.75°C	0.97
50%	12.182V	5.002V	3.313V	5.008V	644.713	93.012%	788		49.38°C	229.67V
700/	51.720A	7.002A	6.978A	2.204A	699.413	02 (120/	782	14.0	43.44°C	0.973
70%	12.187V	4.998V	3.31V	4.99V	754.966	92.642%		14.3	50.48°C	229.65V
2007	59.190A	8A	7.98A	2.311A	799.407	00 1750/	1040	31.9	43.78°C	0.975
30%	12.190V	4.996V	3.308V	4.976V	867.265	92.175%	1343		51.87°C	229.64V
200/	66.978A	8.508A	8.469A	2.418A	899.235	01 7000/	1242	21.0	44.82°C	0.976
90%	12.194V	4.994V	3.306V	4.962V	980.38	91.723%	1343	31.9	53.89°C	229.61V
1000/	74.532A	9.012A	8.988A	3.043A	999.246	01 1040/	1242	21.0	45.73°C	0.978
100%	12.204V	4.992V	3.304V	4.929V	1095.739	91.194%	1342	31.9	55.76°C	229.6V
1100/	82.006A	10.02A	10.086A	3.05A	1099.868	00 5000/	1500	24.7	46.65°C	0.979
110%	12.213V	4.989V	3.302V	4.918V	1214.142	90.588%	1500	34.7	57.47°C	229.58V
	0.113A	15.085A	15.006A	0A	126.291	01 6000/	702	145	40.64°C	0.891
CL1	12.245V	4.991V	3.306V	5.107V	154.598	81.689%	793	14.5	45.99°C	229.75V
~ ~	0.113A	25.047A	0A	0A	126.248	70 60 40/	1050	22.0	40.08°C	0.894
CL2	12.217V	4.985V	3.314V	5.114V	158.434	79.684%	1352	32.0	47.13°C	229.75V
	0.113A	0A	24.96A	0A	83.895	71 4670/	1050	22.0	42.06°C	0.853
CL3	12.215V	5.009V	3.306V	5.115V	117.396	71.467%	1353	32.0	51.15°C	229.75V
	82.039A	0A	0A	0A	999.836	01 75 404	1500	24.7	45.26°C	0.977
CL4	12.187V	5.012V	3.318V	5.047V	1089.694	91.754%	1500	34.7	56.22°C	229.6V

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Anex

Vetroo 1000G5

20-80W LOAD TESTS 230V										
Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
2014	1.222A	0.498A	0.496A	0.195A	19.997	77 7460/	0	<6.0	39.68°C	0.489
20W	12.148V	5.022V	3.328V	5.128V	25.721	//./46%	77.746% 0		36.58°C	229.77V
40144	2.690A	0.697A	0.694A	0.293A	39.995	04.0000/	0	<6.0	41.15°C	0.648
40W	12.147V	5.022V	3.327V	5.123V	47.56	84.088%	0		37.87°C	229.77V
C0144	4.160A	0.896A	0.893A	0.391A	59.992	06 4670/	% 0	<6.0	42.08°C	0.749
60W	12.144V	5.021V	3.327V	5.118V	69.387	86.467%			38.6°C	229.76V
80W	5.626A	1.096A	1.091A	0.489A	79.93	07.01.00/	0	<6.0	43.36°C	0.805
	12.142V	5.019V	3.326V	5.112V	91.019	87.816%	0		39.57°C	229.76V

RIPPLE MEASUREMENTS 230V

2V	5V	2 21/		
		3.3V	5VSB	Pass/Fail
0.39mV	13.59mV	12.89mV	15.19mV	Pass
0.13mV	13.64mV	11.77mV	15.30mV	Pass
1.00mV	13.34mV	12.23mV	15.34mV	Pass
0.59mV	16.55mV	14.48mV	16.06mV	Pass
1.15mV	14.15mV	12.79mV	15.86mV	Pass
0.11mV	19.72mV	15.50mV	20.77mV	Pass
1.15mV	15.02mV	13.66mV	17.24mV	Pass
1.77mV	15.27mV	14.84mV	18.31mV	Pass
1.31mV	16.30mV	15.40mV	20.41mV	Pass
6.46mV	17.61mV	16.54mV	22.62mV	Pass
6.24mV	17.54mV	16.59mV	23.43mV	Pass
1.51mV	14.60mV	16.53mV	14.01mV	Pass
0.90mV	20.89mV	12.99mV	12.84mV	Pass
1.61mV	14.00mV	21.07mV	12.43mV	Pass
6.43mV	17.59mV	14.88mV	15.89mV	Pass
	L.00mV D.59mV L.15mV D.11mV L.15mV L.77mV L.31mV D.31mV	13.34mV 10.00mV 13.34mV 16.55mV 16.55mV 1.15mV 14.15mV 1.15mV 19.72mV 1.15mV 15.02mV 1.15mV 15.02mV 1.15mV 15.02mV 1.77mV 15.27mV 1.31mV 16.30mV 0.46mV 17.61mV 0.24mV 17.54mV 0.51mV 14.60mV 0.90mV 20.89mV 1.61mV 14.00mV	13.34mV 12.23mV 159mV 16.55mV 14.48mV 1.15mV 14.15mV 12.79mV 1.15mV 14.15mV 12.79mV 1.11mV 19.72mV 15.50mV 1.15mV 15.02mV 13.66mV 1.15mV 15.02mV 13.66mV 1.77mV 15.27mV 14.84mV 1.31mV 16.30mV 15.40mV 5.46mV 17.61mV 16.54mV 5.24mV 17.54mV 16.59mV 5.51mV 14.60mV 16.53mV 6.61mV 12.09mV 12.99mV	13.34mV 12.23mV 15.34mV 1.59mV 16.55mV 14.48mV 16.06mV 1.15mV 14.15mV 12.79mV 15.86mV 1.15mV 19.72mV 15.50mV 20.77mV 1.1mV 19.72mV 13.66mV 17.24mV 1.1mV 15.02mV 13.66mV 17.24mV 1.1mV 15.27mV 14.84mV 18.31mV 1.31mV 16.30mV 15.40mV 20.41mV 3.46mV 17.61mV 16.54mV 22.62mV 3.46mV 17.61mV 16.59mV 23.43mV 3.51mV 14.60mV 16.53mV 14.01mV 3.90mV 20.89mV 12.99mV 12.84mV

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Anex

Vetroo 1000G5



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