SINGLE VOLTAGE EXTERNAL - POWER SUPPLY TEST REPORT

Date : March 10, 2011
Test No: ETR-EW-11-023

Model No: DCH5-050EU **Sample No.:** J523HE00290AL

Reference:

☐	AS/NZS 4665.1:2005 – Minimum Energy Performance Standard (MEPS) Requirements
☒	ErP Directive 2005/32/EC, EC No. 278/2009 – External Power Supplies
☐	US EPA "Test Method for Calculating the Energy Efficiency of Single- Voltage External AC-DC and AC-AC Power Supplies", August 11, 2004
☐	Others

Astec Internal Model Name:	DCH5-050EU
Brand Name:	Emerson Network Power
Product Category:	External Power Supplies
Product Description:	External Power Supplies – AC-DC Single Voltage

NAME PLATE SPECIFICATIONS	INPUT	OUTPUT
Voltage [V]	100 - 240	5
Current [A]	0.2	1
Power [W]	N/A	5
Frequency [Hz]	50/60	N/A

Ambient Temp: **25** **°C**

Test Equipment Used	Date Calibrated	Due Date
Chroma Programmable AC Source 61602	Calibration Lab *labeled* 'For Indication Only'	
Chroma DC Electronic Load 63103	February 3, 2011	February 3, 2012
Voltech PM100 Single Phase Power Analyzer	August 2, 2010	August 2, 2011
Hioki 3332 Power HiTester	July 2, 2010	July 2, 2011

Test performed by : Kathlyn L. De Quiroz Test witnessed by: Owynne Milabat ? 2011.03.14 03:15:04 Z
Reviewed by : Dino Dineros ?

Model No: DCH5-050EU **Sample No.:** J523HE00290AL

RESULTS:
(Test at Lower Limit or Low Line of Input Voltage)

	No Load	Active power values				
Percent of Nameplate current	0%	25%	50%	75%	100%	Average
d.c. output current (A_{rms})	0.0000	0.2500	0.5000	0.7500	1.0000	
d.c. output voltage (V_{rms})	5.1683	5.1383	5.1217	5.1325	5.1600	
d.c. output power (W)	0.0000	1.2846	2.5608	3.8494	5.1600	
a.c. input current (A)	0.0039	0.0346	0.0581	0.0808	0.1043	
a.c. input power (W)	0.1231	1.7677	3.3350	4.9810	6.7977	
THD of input current	0.0990	0.1240	0.0957	0.0837	0.0840	
True power factor (W/VA)	0.2715	0.4434	0.4975	0.5344	0.5633	0.4620
Power Consumed by EUT (W)	0.1231	0.4831	0.7742	1.1316	1.6377	
Active Mode Efficiency		0.7267	0.7679	0.7728	0.7591	0.7566
Test Voltage (V):	115		Test Freq. (Hz):		60	

Note: THD – Total Harmonic Distortion

(Test at Upper Limit or High Line of Input Voltage)

	No Load	Active power values				
Percent of Nameplate current	0%	25%	50%	75%	100%	Average
d.c. output current (A_{rms})	0.0000	0.2500	0.5000	0.7500	1.0000	
d.c. output voltage (V_{rms})	5.1583	5.1225	5.1042	5.1058	5.1375	
d.c. output power (W)	0.0000	1.2806	2.5521	3.8294	5.1375	
a.c. input current (A)	0.0030	0.0241	0.0389	0.0529	0.0659	
a.c. input power (W)	0.1452	1.9683	3.5263	5.1547	6.7557	
THD of input current	0.0563	0.0860	0.0593	0.0650	0.0583	
True power factor (W/VA)	0.2088	0.3534	0.3934	0.4222	0.4444	0.3644
Power Consumed by EUT (W)	0.1452	0.6877	0.9743	1.3253	1.6182	
Active Mode Efficiency		0.6507	0.7238	0.7429	0.7605	0.7195
Test Voltage (V):	230		Test Freq (Hz):		50	

Note: THD – Total Harmonic Distortion

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After the conclusion of the test,

EU Energy Related Products (ErP) only:

Enforce After	No load power consumption requirements		Measured no load power (W)	Verdict
	P_{NO} (W)	No load power (W)		
April 27, 2010	0 to <10	*≤0.5*		
	10 to ≤250	*≤0.5*		
Output voltage < 6 V and Output current ≥0.550 A (Low Voltage)				
April 27, 2011	0 to 51	*≤0.3*	0.1452	PASS
	>51 to 250	*N/A*		
Other output voltage and/or current levels				
April 27, 2011	0 to 51	*≤0.3*		
	>51 to 250	*≤0.5*		

Enforce After	Active mode efficiency requirements		average active mode efficiency		Verdict
	P_{NO} (W)	Average	Calculated	Measured	
April 27, 2010	0 to <1	*≥0.5 x P_{NO}*			
	1 to 51	*≥0.09 L_N (P_{NO}) + 0.5*			
	>51 to 250	*≥0.850*			
Output voltage < 6 V and Output current ≥0.550 A (Low Voltage)					
April 27, 2011	0 to 1	*≥0.497 x P_{NO} + 0.067*			
	>1 to 51	*≥0.075 L_N (P_{NO}) + 0.561*	0.6817	0.7195	PASS
	>51 to 250	*≥0.860*			
Other output voltage and/or current levels					
April 27, 2011	0 to 1	*≥0.480 x P_{NO} + 0.140*			
	>1 to 51	*≥0.063 x L_N (P_{NO}) + 0.622*			
	>51 to 250	*≥0.870*			

Notes:
P_{NO} - *Name Plate Output Power*
L_N - *Natural Logarithmic*

Test performed by : Kathlyn L. De Quiroz Test witnessed by: Owynne Milabat ?
Reviewed by : Dino Dineros ?

2011.03.14 03:15:33 Z