

Standby Power

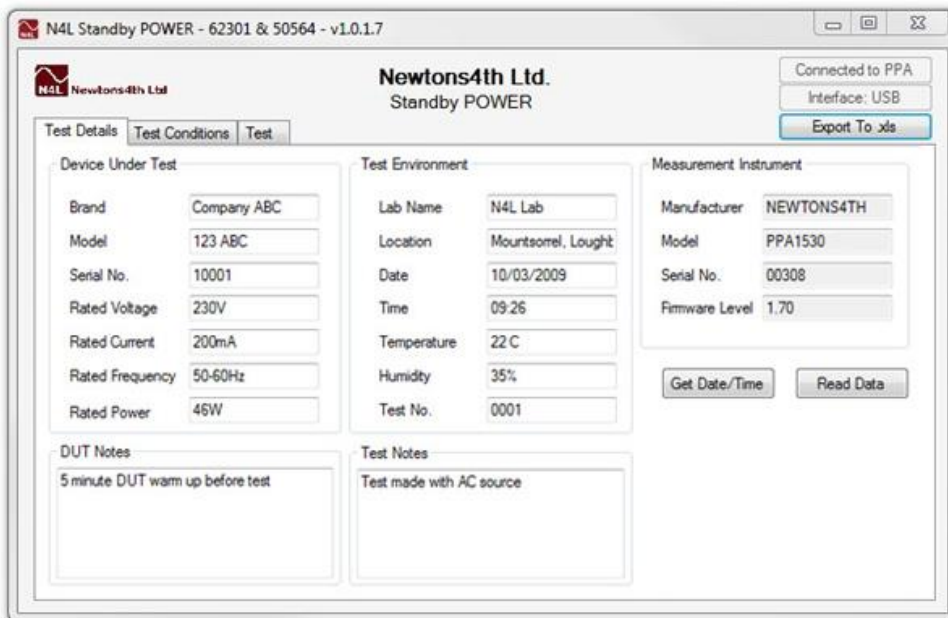
PPA Series PC Software 62301 & 50564 Standby Power

Compliance to IEC62301 Ed.2, EN50564:2011 and Energy Star require the ability of a measurement instrument to meet defined measurement accuracy criteria when measuring any DUT in standby mode.

PPA series power analyzers deliver complete assurance by being well within the required accuracy and N4L Standby POWER PC software provides a simple test and reporting facility.

Required Watts accuracy @ > 0.5W 2.0%
PPA accuracy is within 0.2%

Required Watts accuracy @ < 0.5W 0.01W
PPA series accuracy within 0.001W



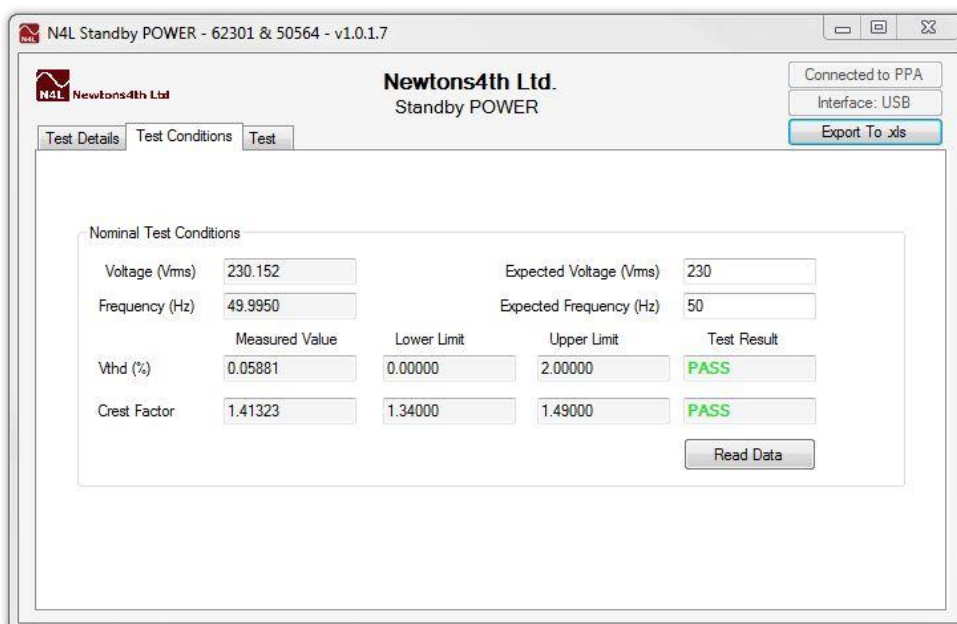
The screenshot shows the 'Test Details' tab of the software. It contains three main sections: 'Device Under Test', 'Test Environment', and 'Measurement Instrument'. Each section has several input fields for data entry. At the bottom, there are two text areas for 'DUT Notes' and 'Test Notes', and a 'Read Data' button.

Section	Field	Value
Device Under Test	Brand	Company ABC
	Model	123 ABC
	Serial No.	10001
	Rated Voltage	230V
	Rated Current	200mA
	Rated Frequency	50-60Hz
	Rated Power	46W
	DUT Notes	5 minute DUT warm up before test
Test Environment	Lab Name	N4L Lab
	Location	Mountsomel, Lough
	Date	10/03/2009
	Time	09:26
	Temperature	22 C
	Humidity	35%
Measurement Instrument	Manufacturer	NEWTONS4TH
	Model	PPA1530
	Serial No.	00308
	Firmware Level	1.70
	Test No.	0001

Step 1:

Enter details of DUT and Test Environment.

Date, Time and Measurement Instrument details are entered by a button click.



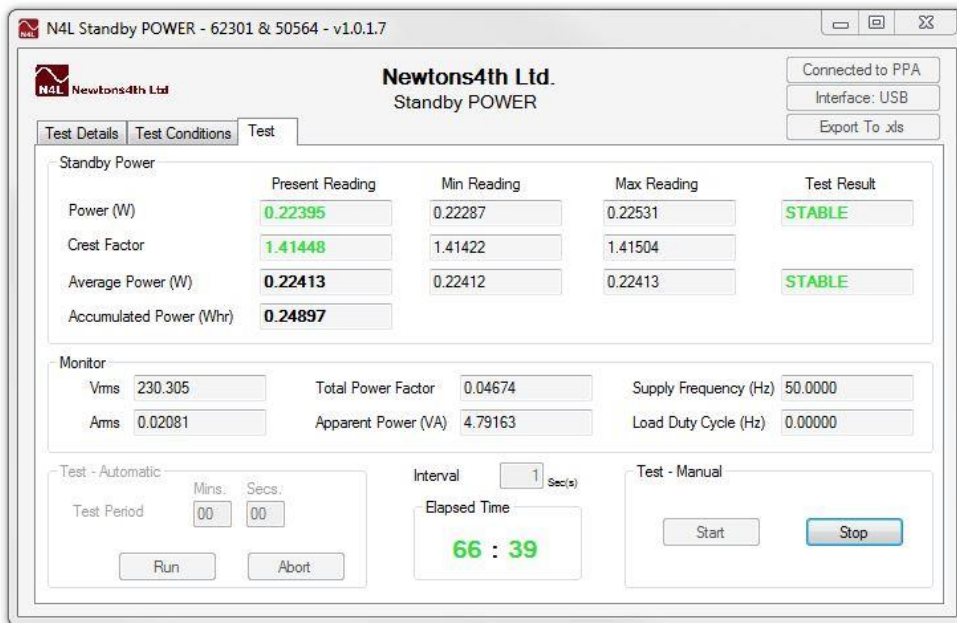
The screenshot shows the 'Test Conditions' tab of the software. It displays 'Nominal Test Conditions' with a table of measured values, expected values, and limits. A 'Read Data' button is visible at the bottom.

Parameter	Measured Value	Lower Limit	Upper Limit	Test Result
Voltage (Vrms)	230.152		Expected Voltage (Vrms) 230	
Frequency (Hz)	49.9950		Expected Frequency (Hz) 50	
Wthd (%)	0.05881	0.00000	2.00000	PASS
Crest Factor	1.41323	1.34000	1.49000	PASS

Step 2:

Nominal test conditions are tested by clicking on a 'read data' button.

All values will be measured against the required limits.



Step 3:

Start a test with either manual 'start' – 'stop' buttons or set a test period, then 'run' and

Standby POWER Will start, count down the requested time and then stop.

N4L - Standby Power Test Report - IEC 62301				
Test Details				
Device Under Test				
Brand	Company ABC			
Model	123 ABC			
Serial No.	10001			
Rated Voltage (Vrms)	230V			
Rated Current (Arms)	200mA			
Rated Frequency (Hz)	50-60Hz			
Rated Power (W)	46W			
DUT Notes	5 minute DUT warm up before test			
Test Environment				
Lab Name	N4L Lab			
Location	Mountsorrel, Loughborough, LE12 7AT, UK			
Date	10/03/2009			
Time	09:26			
Temperature	22 C			
Humidity	35%			
Test No.	1			
Test Notes	Test made with AC source			
Measurement Instrument				
Manufacturer	NEWTONS4TH			
Model	PPA 1530			
Serial No.	308			
Firmware Level	1.70			
Nominal Test Conditions				
Voltage (V)	230.117			
Frequency (Hz)	49.9938			
	Measured Value	Lower Limit	Upper Limit	Test Result
Vthd (%)	0.0822019	0	2	PASS
Crest Factor	1.41316	1.34	1.49	PASS
Test Results				
Monitor				
Vrms	230.048			
Arms	0.01645			
Total Power Factor	0.31126			
Apparent Power (VA)	3.78463			
Supply Frequency (Hz)	49.9929			
Load Duty Cycle (Hz)	49.9975			
Elapsed Time (mm:ss)	05:00			
Standby Power				
	Measured Value	Lower Limit	Upper Limit	Test Result
Power (W)	1.17804	1.17228	1.18173	STABLE
Crest Factor	1.41526	1.41272	1.41651	PASS
Average Power (W)	1.17746			
Accumulated Power (Whr)	0.098448			

Step 4:

At the end of a manual or automatic test, click on the 'Export to .xls' button and a spreadsheet will open with all test details, test conditions and test results automatically entered.

The spreadsheet can be saved to any file and is pre-formatted for direct printing.