

EFFICIENCY / POWER FACTOR

Test condition

Input Voltage	115Vac/60Hz, 230Vac/50Hz
Test temperature	25° C
Sample size	
Load capacitance	No
Load	20%, 50%, 100% of max rated load,

Load Condition	Individual Load Current(A)						Output Power	
	+3.3V	+5.08V	+12V	+12Vcpu	-12V	+5.08Vsb	Total	Main
20% of max rated load	2.0	1.0	1.0	2.0	0.10	1.0	53.96	48.88
50% of max rated load	5.0	1.0	4.0	5.0	0.05	1.0	135.26	130.18
100% of max rated load	10.0	2.0	6.0	12.0	0.10	2.0	270.52	260.36

- The unit is set at specified load, the input voltage is set at 115Vac/60 Hz and 230Vac/50Hz. Efficiency is computed, and Power Factor and THD of input current are measured.
- - Max Load: (Supply should be loaded for 30 minutes with rated load to meet warm up criteria)

1.1.1. Measurements

The following data must be collected for all the testing conditions

20% of max rated load

Version	Input (V)	Freq. (Hz)	Iin (Arms)	Pin (W)	Pout (W)	Dissipated Power (W)	Efficiency (%)	Power Factor
Sample 1	115	60	0.602	66.14	54.754	11.386	82.79	0.9548
	230	50	0.326	65.51	54.754	10.756	83.58	0.8723
Sample 2	115	60	0.607	66.14	54.753	11.387	82.78	0.9548
	230	50	0.342	65.50	54.755	10.745	83.60	0.9548

50% of max rated load

Version	Input (V)	Freq. (Hz)	Iin (Arms)	Pin (W)	Pout (W)	Dissipated Power (W)	Efficiency (%)	Power Factor
Sample 1	115	60	1.407	157.12	135.977	21.143	86.54	0.9717
	230	50	0.719	154.82	136.007	18.813	87.85	0.9361
Sample 2	115	60	1.411	157.46	136.103	21.357	86.44	0.9703
	230	50	0.729	155.21	136.093	19.117	87.68	0.9252

100% of max rated load

Version	Input (V)	Freq. (Hz)	Iin (Arms)	Pin (W)	Pout (W)	Dissipated Power (W)	Efficiency (%)	Power Factor
Sample 1	115	60	2.848	323.30	268.985	54.315	83.20	0.9872
	230	50	1.426	315.70	268.741	46.959	85.13	0.9628
Sample 2	115	60	2.853	323.80	269.245	54.555	83.15	0.987
	230	50	1.430	316.30	268.987	47.313	85.04	0.9619

Test Result:

OK