

# 80 PLUS Verification and Testing Report

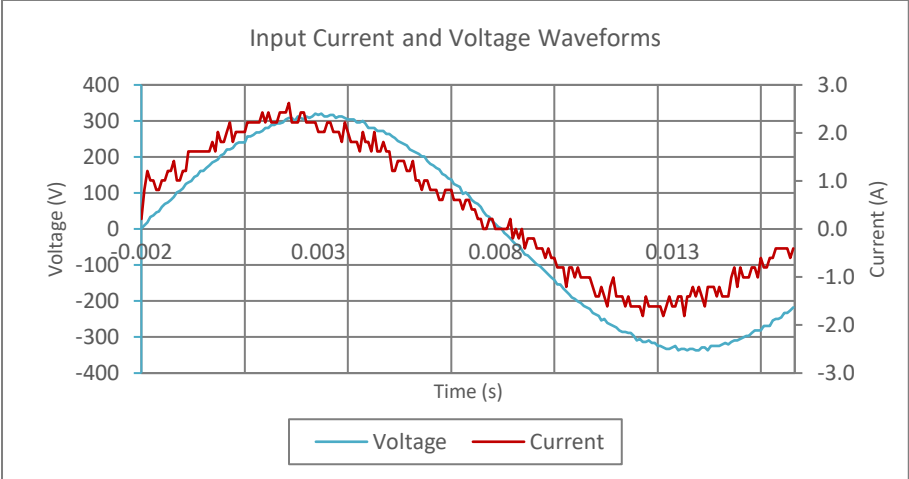
|                                |        |
|--------------------------------|--------|
| TYPICAL EFFICIENCY (50% Load): | 88.43% |
| AVERAGE EFFICIENCY :           | 86.95% |
| 80 PLUS COMPLIANT:             | YES    |



|               |            |
|---------------|------------|
| ID Number     | EU-781     |
| Manufacturer  | 1st Player |
| Model Number  | HA-500AC2  |
| Serial Number | N/A        |
| Year          | 2021       |
| Type          | ATX12V     |
| Test Date     | 1/15/21    |

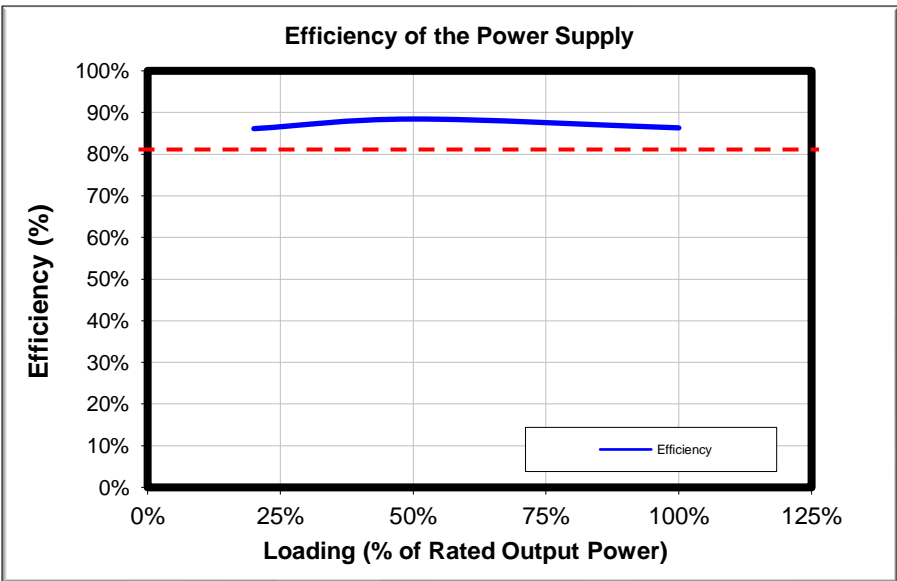
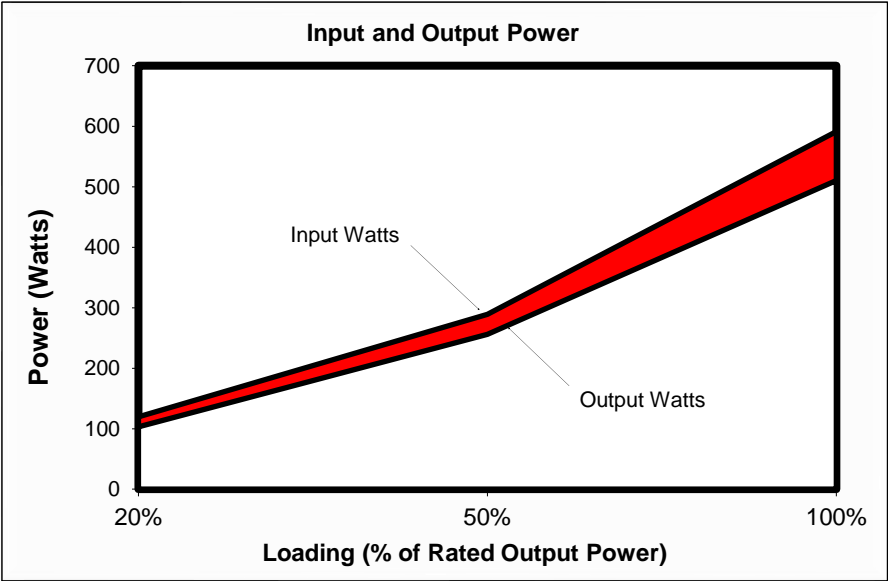
| Rated Specifications | Value   | Units |
|----------------------|---------|-------|
| Input Voltage        | 200-240 | Volts |
| Input Current        | 8       | Amps  |
| Input Frequency      | 50-60   | Hz    |
| Rated Output Power   | 500     | Watts |

Note: All measurements were taken with input voltage at 230 V nominal at 50 Hz.



Input AC Current Waveform (ITHD = 7.37%, 50% Load)

| I <sub>RMS</sub> | PF   | I <sub>THD</sub> | Load | Input Watts | DC Terminal Voltage (V)/ DC Load Current (A) |            |           |           |           | Output Watts | Efficiency |
|------------------|------|------------------|------|-------------|--|------------|-----------|-----------|-----------|--------------|------------|
|                  |      |                  |      |             | 12V (cumulative of 12V1, 12V2, etc.)         | -12V       | 3.3V      | 5V        | 5Vsb      |              |            |
| 0.35             | 0.80 | 12.96%           | 10%  | 63.97       | 12.28/3.39                                   | 12.36/0.02 | 3.39/0.99 | 5.1/0.99  | 5.04/0.21 | 51.32        | 80.23%     |
| 0.57             | 0.91 | 9.90%            | 20%  | 119.14      | 12.27/6.77                                   | 12.32/0.05 | 3.38/1.98 | 5.09/1.97 | 5.03/0.41 | 102.59       | 86.11%     |
| 1.29             | 0.97 | 7.37%            | 50%  | 289.20      | 12.26/16.94                                  | 12.23/0.12 | 3.36/4.94 | 5.07/4.91 | 4.98/1.03 | 255.74       | 88.43%     |
| 2.60             | 0.99 | 6.25%            | 100% | 591.10      | 12.25/33.85                                  | 12.2/0.24  | 3.32/9.92 | 5.03/9.82 | 5.03/2.06 | 510.16       | 86.31%     |



These tests were conducted by a third party independent testing firm on behalf of the 80 PLUS Program. 80 PLUS is a certification program to promote highly-efficient power supplies (greater than 80% efficiency in the active mode) in technology applications. <http://www.80plus.org/>