

80 PLUS Verification and Testing Report

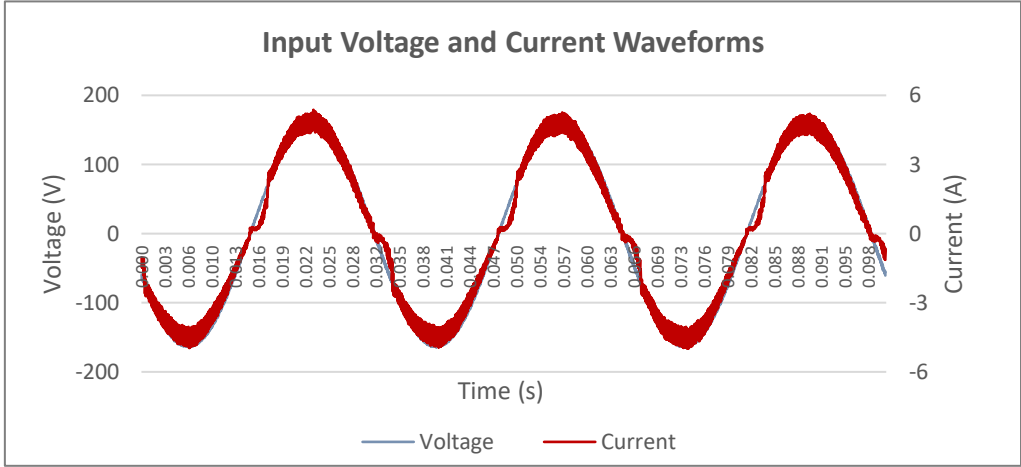
|                                |        |
|--------------------------------|--------|
| TYPICAL EFFICIENCY (50% Load): | 87.10% |
| AVERAGE EFFICIENCY :           | 80.26% |
| AVERAGE STANDBY EFFICIENCY :   | 72.62% |
| 80 PLUS COMPLIANT:             | Bronze |



|               |                                    |
|---------------|------------------------------------|
| ID Number     | 7888                               |
| Manufacturer  | Micro-Star International Co., Ltd. |
| Model Number  | MS-7ZPTY                           |
| Sample 1 S/N: | N/A                                |
| Sample 2 S/N: | N/A                                |
| Type          | ATX 3.1                            |
| Test Date     | 07/03/2025                         |

| Rated              | Value   | Units |
|--------------------|---------|-------|
| Input Voltage      | 100-240 | Volts |
| Input Current      | 10-5    | Amps  |
| Input Frequency    | 50-60   | Hz    |
| Rated Output Power | 650     | Watts |

Note: All measurements were taken with input voltage at 115 V nominal at 60 Hz.



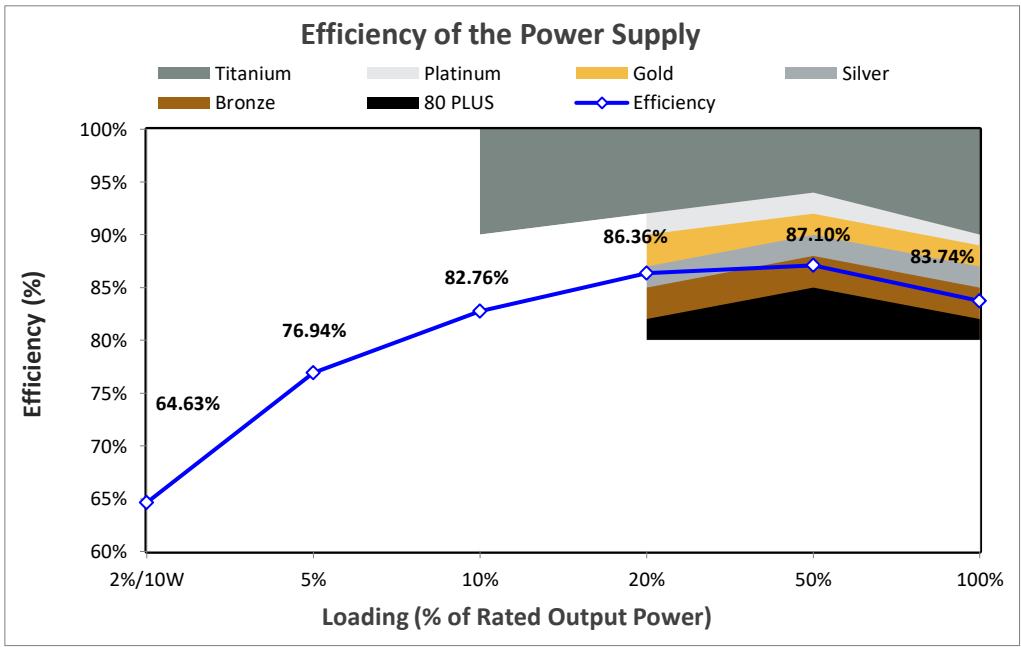
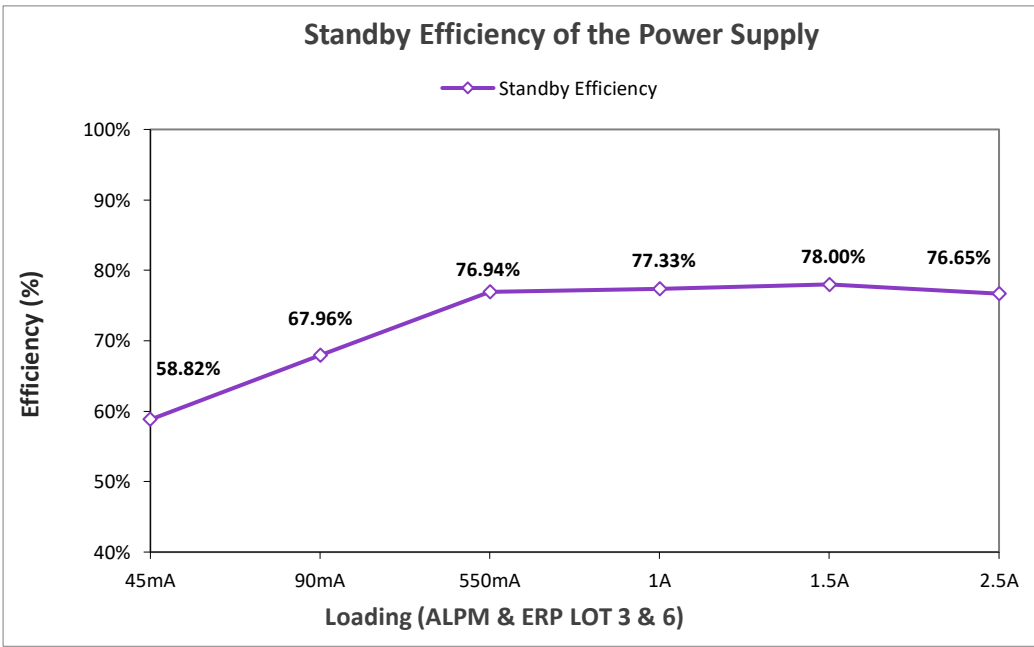
Input AC Current Waveform (ITHD = 9.59%, 50% Load)

| I <sub>RMS</sub> (A) | PF     | I <sub>THD</sub> (%) | Load   | Input<br>Watts | DC Terminal Voltage (V)/ DC Load Current (A) |              |              |             | Output<br>Watts | Efficiency |
|----------------------|--------|----------------------|--------|----------------|----------------------------------------------|--------------|--------------|-------------|-----------------|------------|
|                      |        |                      |        |                | 12V (cumulative of 12V1, 12V2, etc.)         | 3.3V         | 5V           | 5VSB        |                 |            |
| 0.124                | 0.3026 | 66.70                | 0%     | 4.33           | No-Load                                      |              |              |             |                 |            |
| 0.306                | 0.5749 | 63.18                | 2%/10W | 20.21          | 12.028/0.924                                 | 3.343/0.206  | 5.124/0.206  | 5.079/0.043 | 13.06           | 64.63%     |
| 0.425                | 0.8693 | 32.31                | 5%     | 42.44          | 12.027/2.309                                 | 3.341/0.515  | 5.123/0.515  | 5.075/0.107 | 32.65           | 76.94%     |
| 0.717                | 0.9565 | 14.87                | 10%    | 78.89          | 12.025/4.616                                 | 3.339/1.029  | 5.121/1.030  | 5.070/0.214 | 65.29           | 82.76%     |
| 1.336                | 0.9832 | 8.08                 | 20%    | 151.12         | 12.019/9.231                                 | 3.333/2.059  | 5.114/2.059  | 5.060/0.428 | 130.50          | 86.36%     |
| 3.265                | 0.9949 | 9.59                 | 50%    | 373.79         | 12.000/23.076                                | 3.315/5.148  | 5.094/5.149  | 5.029/1.069 | 325.58          | 87.10%     |
| 6.757                | 0.9968 | 5.83                 | 100%   | 774.92         | 11.967/46.152                                | 3.282/10.297 | 5.062/10.298 | 4.975/2.136 | 648.89          | 83.74%     |

Note: Efficiency data was obtained from Sample 1 (Serial Number: N/A)

| I <sub>RMS</sub> (A) | PF     | I <sub>THD</sub> (%) | Load  | Input<br>Watts | DC Terminal Voltage (V)/ DC Load Current (A) |  | Output<br>Watts | Standby<br>Efficiency |
|----------------------|--------|----------------------|-------|----------------|----------------------------------------------|--|-----------------|-----------------------|
|                      |        |                      |       |                | 5VSB                                         |  |                 |                       |
| 0.055                | 0.0153 | 6.51                 | 0mA   | 0.10           | Vampire Load                                 |  |                 |                       |
| 0.061                | 0.0553 | 22.97                | 45mA  | 0.39           | 5.094/0.045                                  |  | 0.23            | 58.82%                |
| 0.060                | 0.0980 | 34.14                | 90mA  | 0.67           | 5.094/0.090                                  |  | 0.46            | 67.96%                |
| 0.098                | 0.3227 | 77.48                | 550mA | 3.63           | 5.081/0.550                                  |  | 2.79            | 76.94%                |
| 0.145                | 0.3933 | 83.18                | 1A    | 6.55           | 5.068/1.000                                  |  | 5.07            | 77.33%                |
| 0.183                | 0.4611 | 84.96                | 1.5A  | 9.72           | 5.053/1.500                                  |  | 7.58            | 78.00%                |
| 0.287                | 0.4963 | 85.00                | 2.5A  | 16.40          | 5.023/2.502                                  |  | 12.57           | 76.65%                |

Note: Standby efficiency data was obtained from Sample 2 (Serial Number: N/A)



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.

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