# 80 PLUS Verification and Testing Report

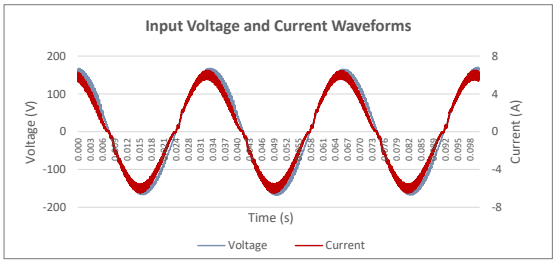



| | |
|---|---|
| TYPICAL EFFICIENCY (50% Load): | 91.37% |
| AVERAGE EFFICIENCY : | 84.43% |
| AVERAGE STANDBY EFFICIENCY : | 77.90% |
| 80 PLUS COMPLIANT: | Gold |

| | |
|---|---|
| ID Number | 7816 |
| Manufacturer | Cooler Master |
| Model Number | MPX-8505-AFAG |
| Sample 1 S/N: | MPX8505AFAGBCN1251600003 |
| Sample 2 S/N: | MPX8505AFAGBCN1251600002 |
| Type | ATX 3.1 |
| Test Date | 4/30/25 |

| Rated | Value | Units |
|---|---|---|
| Input Voltage | 100-240 | Volts |
| Input Current | 12-6 | Amps |
| Input Frequency | 50-60 | Hz |
| Rated Output Power | 850 | Watts |

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



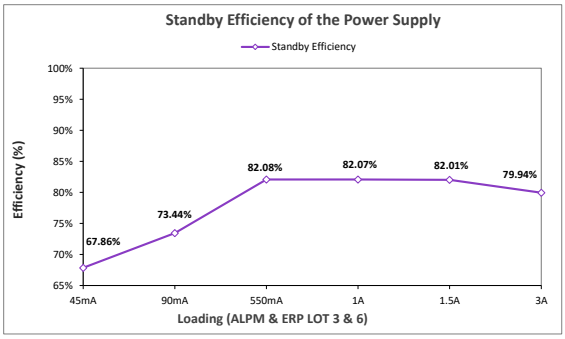

Input AC Current Waveform (ITHD = 7.11%, 50% Load)

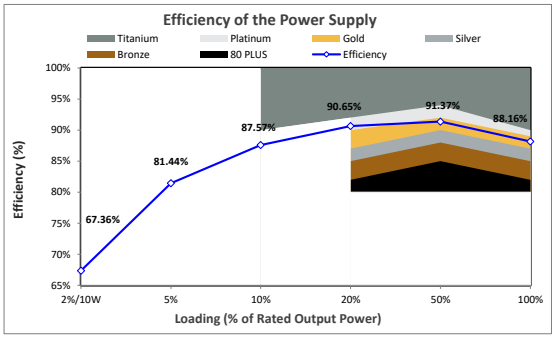
| $I_{RMS\ (A)}$ | PF | $I_{THD\ (\%)}$ | Load | Input Watts | DC Terminal Voltage (V)/ DC Load Current (A) | | | | | Output Watts | Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 12V (cumulative of 12V1, 12V2, etc.) | -12V | 3.3V | 5V | 5VSB | | |
| 0.169 | 0.3776 | 68.75 | 0% | 7.34 | No-Load | | | | | | |
| 0.292 | **0.7562** | 28.03 | 2%/10W | 25.38 | 12.065/1.244 | 12.116/0.005 | 3.317/0.211 | 5.036/0.211 | 5.106/0.053 | 17.10 | 67.36% |
| 0.507 | **0.8999** | 16.87 | 5% | 52.49 | 12.065/3.109 | 12.117/0.013 | 3.317/0.529 | 5.035/0.529 | 5.104/0.132 | 42.75 | 81.44% |
| 0.887 | **0.9572** | 10.61 | 10% | 97.61 | 12.065/6.216 | 12.118/0.026 | 3.319/1.057 | 5.037/1.058 | 5.100/0.264 | 85.48 | 87.57% |
| 1.688 | **0.9716** | 11.28 | 20% | 188.63 | 12.067/12.431 | 12.120/0.053 | 3.320/2.115 | 5.037/2.115 | 5.093/0.527 | 171.00 | 90.65% |
| 4.112 | **0.9914** | 7.11 | 50% | 468.92 | 12.099/31.077 | 12.044/0.132 | 3.320/5.288 | 5.032/5.289 | 5.070/1.317 | 428.45 | 91.37% |
| 8.467 | **0.9964** | 3.09 | 100% | 970.00 | 12.072/62.148 | 12.111/0.264 | 3.324/10.575 | 5.038/10.576 | 5.033/2.633 | 855.12 | 88.16% |

Note: Efficiency data was obtained from Sample 1 (Serial Number: MPX8505AFAGBCN1251600003)

| $I_{RMS\ (A)}$ | PF | $I_{THD\ (\%)}$ | Load | Input Watts | DC Terminal Voltage (V)/ DC Load Current (A) | Output Watts | Standby Efficiency |
|---|---|---|---|---|---|---|---|
| | | | | | 5VSB | | |
| 0.080 | 0.0058 | 23.77 | 0mA | 0.05 | Vampire Load | | |
| 0.064 | **0.0457** | 24.39 | 45mA | 0.34 | 5.107/0.045 | 0.23 | 67.86% |
| 0.067 | **0.0814** | 32.14 | 90mA | 0.63 | 5.106/0.090 | 0.46 | 73.44% |
| 0.099 | **0.3008** | 74.47 | 550mA | 3.42 | 5.098/0.550 | 2.80 | 82.08% |
| 0.141 | **0.3822** | 82.66 | 1A | 6.20 | 5.090/1.000 | 5.09 | 82.07% |
| 0.198 | **0.4089** | 85.57 | 1.5A | 9.29 | 5.083/1.500 | 7.62 | 82.01% |
| 0.354 | **0.4656** | 85.54 | 3A | 18.98 | 5.054/3.002 | 15.17 | 79.94% |

Note: Standby efficiency data was obtained from Sample 2 (Serial Number: MPX8505AFAGBCN1251600002)




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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