

## 80 PLUS Verification and Testing Report

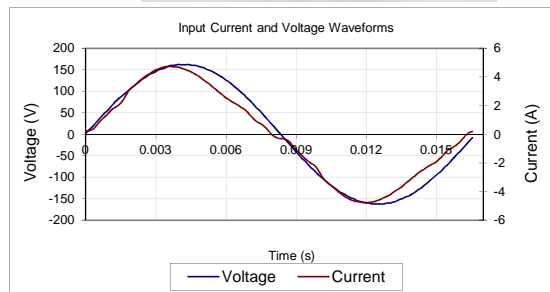
|                                       |               |
|---------------------------------------|---------------|
| <b>TYPICAL EFFICIENCY (50% Load):</b> | <b>91.57%</b> |
| <b>AVERAGE EFFICIENCY :</b>           | <b>89.96%</b> |
| <b>80 PLUS COMPLIANT:</b>             | <b>YES</b>    |



|                      |                             |
|----------------------|-----------------------------|
| <b>Ecos ID #</b>     | 4399.1                      |
| <b>Manufacturer</b>  | Deepcool Industries Co.,Ltd |
| <b>Model Number</b>  | DQ650ST                     |
| <b>Serial Number</b> | N/A                         |
| <b>Year</b>          | 2015                        |
| <b>Type</b>          | ATX12V                      |
| <b>Test Date</b>     | 7/14/15                     |

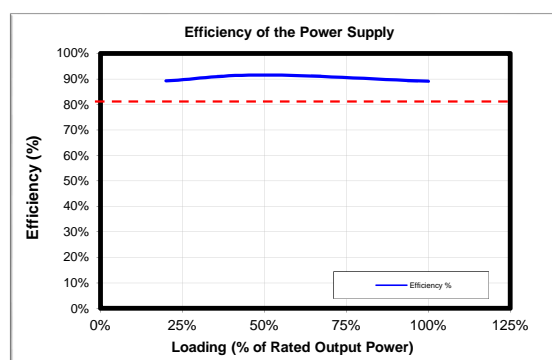
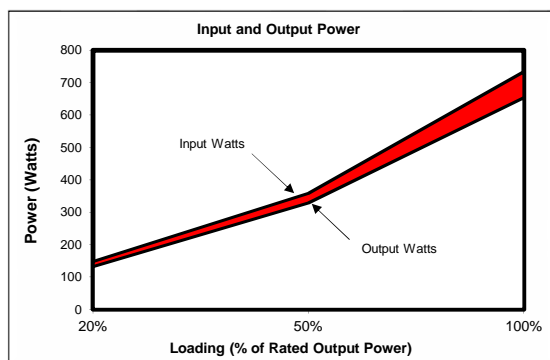
| Rated Specifications      | Value      | Units        |
|---------------------------|------------|--------------|
| Input Voltage             | 100-240    | Volts        |
| Input Current             | 10         | Amps         |
| Input Frequency           | 47-63      | Hz           |
| <b>Rated Output Power</b> | <b>650</b> | <b>Watts</b> |

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



Input AC Current Waveform (ITHD = 11.08%, 50% Load)

| I <sub>RMS</sub> A | 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      |              |              |
| 0.73               | 0.92 | 10.71%               | 10%      | 77.81       | 12.08/4.54                                   | 11.42/0.03 | 3.4/1.13   | 5.1/1.13   | 5.07/0.21 | 65.86        | 84.65%       |
| 1.32               | 0.97 | 11.03%               | 20%      | 147.27      | 12.07/9.07                                   | 11.42/0.05 | 3.4/2.26   | 5.09/2.25  | 5.07/0.43 | 131.41       | 89.23%       |
| 3.16               | 0.99 | 11.08%               | 50%      | 358.40      | 12.06/22.7                                   | 11.51/0.13 | 3.38/5.65  | 5.08/5.61  | 5.05/1.07 | 328.20       | 91.57%       |
| 6.44               | 0.99 | 10.66%               | 100%     | 733.30      | 12.03/45.28                                  | 11.88/0.26 | 3.36/11.27 | 5.07/11.21 | 5.02/2.13 | 653.13       | 89.07%       |



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/>

