

# EC 278/2009 EcoDesign Test Report

EUT:


TIW 24-112

Manufacturer No:

024UWA182

|   |             |                |         |         |         |         |
|---|-------------|----------------|---------|---------|---------|---------|
| <b>230VAC High Line</b>                     |             |                |         |         |         |         |
| <b>Summary</b>                              | <b>Unit</b> | <b>User ID</b> |         |         |         |         |
| <b>Unit Type</b>                            | 024UWA182   | TOB            |         |         |         |         |
| <b>Input Voltage</b>                        | [VAC]       | 230            |         |         |         |         |
| <b>Nominal output current</b>               | [A]         | 2              |         |         |         |         |
| <b>Nominal Output Voltage</b>               | [V]         | 12             |         |         |         |         |
| <b>Nominal O/P Power</b>                    | [W]         | 24             |         |         |         |         |
| <b>Burn In Time</b>                         | mins        | 15             |         |         |         |         |
| <b>Load Condition</b>                       |             | 1              | 2       | 3       | 4       | 5       |
| <b>Percentage of nominal output current</b> |             | 100.00%        | 75.00%  | 50.00%  | 25.00%  | 0.00%   |
| <b>RMS output current</b>                   | [A]         | 2.000          | 1.502   | 1.000   | 0.498   | 0.000   |
| <b>Load Condition</b>                       | [%]         | 99.98          | 75.08   | 49.99   | 24.92   | 0.00    |
| <b>RMS output voltage</b>                   | [V]         | 12.131         | 12.139  | 12.147  | 12.155  | 12.164  |
| <b>Active output power</b>                  | [W]         | 24.256         | 18.228  | 12.143  | 6.059   | 0.000   |
| <b>RMS input voltage</b>                    | [V]         | 230.341        | 230.348 | 230.355 | 230.358 | 230.365 |
| <b>RMS input power</b>                      | [W]         | 29.286         | 21.718  | 14.585  | 7.433   | 0.190   |
| <b>Total harmonic distortison THD</b>       | [%]         | 161.92         | 173.71  | 186.36  | 189.61  | 5.98    |
| <b>True PFC</b>                             | [%]         | 42.80          | 37.90   | 31.10   | 19.80   | 0.60    |
| <b>Power consumed</b>                       | [W]         | 5.030          | 3.490   | 2.442   | 1.374   | 0.190   |
| <b>Efficiency</b>                           | [%]         | 82.82          | 83.93   | 83.26   | 81.52   |         |
| <b>Average Efficiency (1-4)</b>             | [%]         | <b>82.88</b>   |         |         |         |         |
| <b>Min required efficiency</b>              | [%]         | <b>82.22</b>   |         |         |         |         |
| <b>Standby Power Loss</b>                   | [W]         | <b>0.190</b>   |         |         |         |         |
| <b>Allowable Standby Power Loss</b>         | [W]         | <b>0.300</b>   |         |         |         |         |

|                                      |         |
|--------------------------------------|---------|
| Percentage of nominal output current |         |
| Load Condition 1                     | 100.00% |
| Load Condition 2                     | 75.00%  |
| Load Condition 3                     | 50.00%  |
| Load Condition 4                     | 25.00%  |
| Load Condition 5                     | 0.00%   |

|            |               |             |             |                                  |  |
|------------|---------------|-------------|-------------|----------------------------------|--|
|            |               |             |             | <b>EcoDesign<br/>Test Report</b> |  |
| 0          |               | 30.11.11    | Kevin       | Sheet 1/2                        |  |
| <b>Iss</b> | <b>Change</b> | <b>Date</b> | <b>Name</b> |                                  |  |

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EUT:


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|                                      |           |         |         |         |         |         |
|--------------------------------------|-----------|---------|---------|---------|---------|---------|
| 115VAC Low Line                      |           |         |         |         |         |         |
| Summary                              | Unit      | User ID |         |         |         |         |
| Unit Type                            | 024UWA182 | TOB     |         |         |         |         |
| Input Voltage                        | [VAC]     | 115     |         |         |         |         |
| Nominal output current               | [A]       | 1.5     |         |         |         |         |
| Nominal Output Voltage               | [V]       | 12      |         |         |         |         |
| Nominal O/P Power                    | [W]       | 24      |         |         |         |         |
| Burn In Time                         | mins      | 15      |         |         |         |         |
| Load Condition                       |           | 1       | 2       | 3       | 4       | 5       |
| Percentage of nominal output current |           | 100.00% | 75.00%  | 50.00%  | 25.00%  | 0.00%   |
| RMS output current                   | [A]       | 1.502   | 1.126   | 0.751   | 0.376   | 0.000   |
| Load Condition                       | [%]       | 100.14  | 75.04   | 50.07   | 25.06   | 0.00    |
| RMS output voltage                   | [V]       | 12.137  | 12.143  | 12.149  | 12.155  | 12.163  |
| Active output power                  | [W]       | 18.231  | 13.668  | 9.125   | 4.569   | 0.000   |
| RMS input voltage                    | [V]       | 115.104 | 115.106 | 115.115 | 115.114 | 115.125 |
| RMS input power                      | [W]       | 22.077  | 16.550  | 10.884  | 5.530   | 0.112   |
| Total harmonic distortison THD       | [%]       | 118.75  | 131.04  | 148.31  | 172.20  | 16.83   |
| True PFC                             | [%]       | 56.20   | 52.60   | 46.50   | 35.20   | 1.10    |
| Power consumed                       | [W]       | 3.846   | 2.882   | 1.759   | 0.961   | 0.112   |
| Efficiency                           | [%]       | 82.58   | 82.58   | 83.83   | 82.63   |         |
| Average Efficiency (1-4)             | [%]       | 82.91   |         |         |         |         |
| Min required efficiency              | [%]       | 82.22   |         |         |         |         |
| Standby Power Loss                   | [W]       | 0.112   |         |         |         |         |
| Allowable Standby Power Loss         | [W]       | 0.300   |         |         |         |         |

|                                      |         |
|--------------------------------------|---------|
| Percentage of nominal output current |         |
| Load Condition 1                     | 100.00% |
| Load Condition 2                     | 75.00%  |
| Load Condition 3                     | 50.00%  |
| Load Condition 4                     | 25.00%  |
| Load Condition 5                     | 0.00%   |

|     |        |          |       |                          |  |
|-----|--------|----------|-------|--------------------------|--|
|     |        |          |       | EcoDesign<br>Test Report |  |
| 0   |        | 30.11.11 | Kevin | Sheet 1/2                |  |
| Iss | Change | Date     | Name  |                          |  |