



**Table 6. Measured Efficiency Data**

| V <sub>OUT</sub><br>(V <sub>DC</sub> )                   | I <sub>OUT</sub><br>(A <sub>DC</sub> ) | P <sub>OUT</sub><br>(W) | V <sub>IN</sub> (V <sub>DC</sub> ) | I <sub>IN</sub><br>(A <sub>DC</sub> ) | P <sub>IN</sub> (W) | η     | %Max.<br>Load | Mode | SR        |
|--|--|-------------------------|------------------------------------|---------------------------------------|---------------------|-------|---------------|------|-----------|
| <b>LOW TO HIGH MEASUREMENTS (RED LINE IN Figure 53)</b>  |  |                         |                                    |                                       |                     |       |               |      |           |
| 12.497   | 1.01                                   | 12.62                   | 400.00                             | 0.04                                  | 14.80               | 85.3% | 5.1%          | PWM  | NO SR     |
| 12.491   | 1.91                                   | 23.86                   | 400.00                             | 0.07                                  | 26.40               | 90.4% | 9.6%          | PFM  | NO SR     |
| 12.491   | 2.01                                   | 25.11                   | 400.00                             | 0.07                                  | 27.20               | 92.3% | 10.1%         | PFM  | SR SHRINK |
| 12.49  | 3.00                                   | 37.47                   | 400.00                             | 0.10                                  | 39.60               | 94.6% | 15.0%         | PFM  | SR SHRINK |
| 12.489   | 4.01                                   | 50.08                   | 400.00                             | 0.13                                  | 52.80               | 94.9% | 20.1%         | PFM  | SR SHRINK |
| 12.488   | 5.01                                   | 62.56                   | 400.00                             | 0.16                                  | 65.60               | 95.4% | 25.1%         | PFM  | SR SHRINK |
| 12.488   | 6.01                                   | 75.05                   | 400.00                             | 0.19                                  | 77.60               | 96.7% | 30.1%         | PFM  | SR EN     |
| 12.486   | 7.01                                   | 87.53                   | 400.00                             | 0.23                                  | 90.40               | 96.8% | 35.1%         | PFM  | SR EN     |
| 12.483   | 8.01                                   | 99.99                   | 400.00                             | 0.26                                  | 103.20              | 96.9% | 40.1%         | PFM  | SR EN     |
| 12.482   | 9.01                                   | 112.34                  | 400.00                             | 0.29                                  | 116.00              | 97.0% | 45.1%         | PFM  | SR EN     |
| 12.482   | 10.01                                  | 124.82                  | 400.00                             | 0.32                                  | 128.80              | 97.0% | 50.1%         | PFM  | SR EN     |
| 12.48  | 11.00                                  | 137.28                  | 400.00                             | 0.35                                  | 141.60              | 96.9% | 55.1%         | PFM  | SR EN     |
| 12.479   | 12.00                                  | 149.75                  | 400.00                             | 0.39                                  | 154.80              | 96.7% | 60.1%         | PFM  | SR EN     |
| 12.479   | 13.00                                  | 162.23                  | 400.00                             | 0.42                                  | 167.60              | 96.8% | 65.1%         | PFM  | SR EN     |
| 12.477   | 14.00                                  | 174.68                  | 400.00                             | 0.45                                  | 180.80              | 96.6% | 70.1%         | PFM  | SR EN     |
| 12.476   | 15.00                                  | 187.14                  | 400.00                             | 0.49                                  | 194.00              | 96.5% | 75.1%         | PFM  | SR EN     |
| 12.475   | 16.00                                  | 199.60                  | 400.00                             | 0.52                                  | 206.80              | 96.5% | 80.1%         | PFM  | SR EN     |
| 12.474   | 17.00                                  | 212.06                  | 400.00                             | 0.55                                  | 220.00              | 96.4% | 85.0%         | PFM  | SR EN     |
| 12.473   | 18.00                                  | 224.51                  | 400.00                             | 0.58                                  | 233.20              | 96.3% | 90.0%         | PFM  | SR EN     |
| 12.471   | 19.00                                  | 236.95                  | 400.00                             | 0.62                                  | 246.40              | 96.2% | 95.0%         | PFM  | SR EN     |
| 12.467   | 20.00                                  | 249.34                  | 400.00                             | 0.65                                  | 260.00              | 95.9% | 100.0%        | PFM  | SR EN     |
| 12.467   | 21.00                                  | 261.81                  | 400.00                             | 0.68                                  | 273.20              | 95.8% | 105.0%        | PFM  | SR EN     |
| 12.465   | 22.00                                  | 274.23                  | 400.00                             | 0.72                                  | 286.40              | 95.8% | 110.0%        | PFM  | SR EN     |
| 12.462   | 23.01                                  | 286.75                  | 400.00                             | 0.75                                  | 300.40              | 95.5% | 115.0%        | PFM  | SR EN     |
| 12.461   | 24.01                                  | 299.19                  | 400.00                             | 0.79                                  | 314.00              | 95.3% | 120.0%        | PFM  | SR EN     |
| 12.458   | 25.01                                  | 311.57                  | 400.00                             | 0.82                                  | 327.60              | 95.1% | 125.0%        | PFM  | SR EN     |
| <b>HIGH TO LOW MEASUREMENTS (BLUE LINE IN Figure 53)</b> |  |                         |                                    |                                       |                     |       |               |      |           |
| 12.476   | 4.64                                   | 57.89                   | 400.00                             | 0.15                                  | 60.40               | 95.8% | 25.8%         | PFM  | SR SHRINK |
| 12.478   | 4.26                                   | 53.16                   | 400.00                             | 0.14                                  | 55.60               | 95.6% | 23.7%         | PFM  | SR SHRINK |
| 12.479   | 4.01                                   | 50.04                   | 400.00                             | 0.13                                  | 52.40               | 95.5% | 22.3%         | PFM  | SR SHRINK |
| 12.479   | 3.75                                   | 46.80                   | 399.90                             | 0.12                                  | 49.19               | 95.1% | 20.8%         | PFM  | SR SHRINK |
| 12.48  | 3.50                                   | 43.68                   | 399.90                             | 0.12                                  | 45.99               | 95.0% | 19.5%         | PFM  | SR SHRINK |
| 12.482   | 3.26                                   | 40.69                   | 399.90                             | 0.11                                  | 42.79               | 95.1% | 18.1%         | PFM  | SR SHRINK |
| 12.482   | 3.01                                   | 37.57                   | 399.90                             | 0.10                                  | 39.59               | 94.9% | 16.7%         | PFM  | SR SHRINK |
| 12.483   | 2.75                                   | 34.33                   | 399.90                             | 0.09                                  | 36.39               | 94.3% | 15.3%         | PFM  | SR SHRINK |
| 12.483   | 2.5                                    | 31.21                   | 399.90                             | 0.08                                  | 33.19               | 94.0% | 13.9%         | PFM  | SR SHRINK |
| 12.484   | 2.25                                   | 28.09                   | 399.90                             | 0.08                                  | 29.99               | 93.7% | 12.5%         | PFM  | SR SHRINK |
| 12.484   | 2.01                                   | 25.09                   | 399.90                             | 0.07                                  | 26.79               | 93.7% | 11.2%         | PFM  | SR SHRINK |
| 12.485   | 1.75                                   | 21.85                   | 399.90                             | 0.06                                  | 23.59               | 92.6% | 9.7%          | PFM  | SR SHRINK |
| 12.486   | 1.50                                   | 18.73                   | 399.90                             | 0.05                                  | 20.39               | 91.8% | 8.3%          | PFM  | SR SHRINK |
| 12.486   | 1.25                                   | 15.61                   | 399.90                             | 0.04                                  | 17.20               | 90.8% | 7.0%          | PFM  | SR SHRINK |
| 12.486   | 1.01                                   | 12.61                   | 399.90                             | 0.04                                  | 14.00               | 90.1% | 5.6%          | PFM  | SR SHRINK |
| 12.487   | 0.76                                   | 9.49                    | 399.90                             | 0.03                                  | 10.80               | 87.9% | 4.2%          | PFM  | SR SHRINK |

**Note:**

- Operating the converter at or above 20 A max. rated load (shaded region shown in Table 6) requires a fan blowing on the transformer and SR section of the EVB.