Manufacturer: Advanced Energy Industries

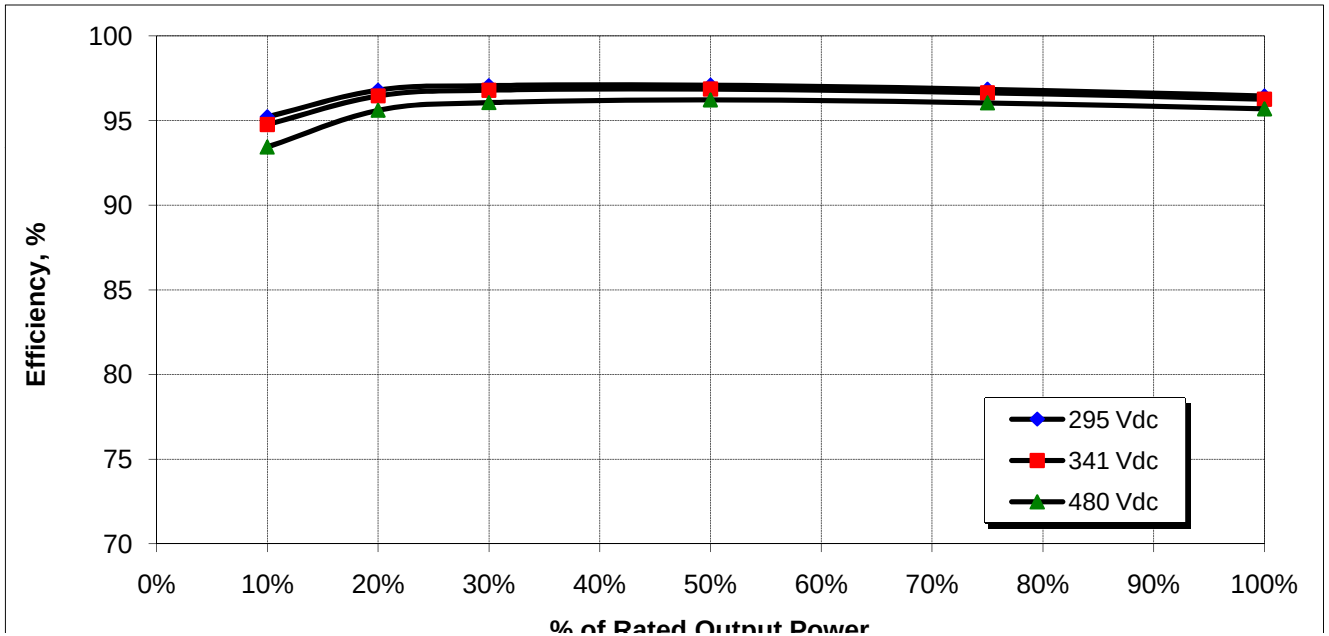
Model #: PVP250kW-600

Rated Maximum Continuous Output Power: 249.50 kW  Night Tare Loss: 100.98 W

Vmin: 295 Vdc  Vnom: 341 Vdc  Vmax: 480 Vdc

| | | Power Level (%; kW) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 10% | 20% | 30% | 50% | 75% | 100% | |
| Input Voltage (Vdc) | | 24.95 | 49.90 | 74.85 | 124.75 | 187.13 | 249.50 | Wtd |
| Vmin | 295 | 95.2 | 96.8 | 97.1 | 97.1 | 96.8 | 96.4 | 96.8 |
| Vnom | 341 | 94.8 | 96.5 | 96.8 | 96.9 | 96.6 | 96.3 | 96.6 |
| Vmax | 480 | 93.4 | 95.6 | 96.1 | 96.2 | 96.0 | 95.7 | 95.9 |

**CEC Efficiency = 96.5%**



Inverter Efficiency Data

Minimum of 5 samples required

| Specified | | Sample #1 | | | Sample #2 | | | Sample #3 | | | Sample #4 | | | Sample #5 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Output Power | Input Voltage | Output Power | Input Voltage | Efficiency | Output Power | Input Voltage | Efficiency | Output Power | Input Voltage | Efficiency | Output Power | Input Voltage | Efficiency | Output Power | Input Voltage | Efficiency |
| (% of rated) | (Vdc) | (kW) | (Vdc) | (%) | (kW) | (Vdc) | (%) | (kW) | (Vdc) | (%) | (kW) | (Vdc) | (%) | (W) | (Vdc) | (%) |
| 10% | Vmin | 24641.0 | 295.9 | 95.20 | 24641.0 | 295.9 | 95.21 | 24636.0 | 295.9 | 95.20 | 24659.0 | 295.9 | 95.20 | 24661.0 | 295.9 | 95.22 |
| 20% | Vmin | 54709.0 | 296.4 | 96.79 | 54735.0 | 296.4 | 96.79 | 54685.0 | 296.4 | 96.79 | 54695.0 | 296.4 | 96.79 | 54692.0 | 296.4 | 96.79 |
| 30% | Vmin | 80937.0 | 295.4 | 97.05 | 80947.0 | 295.4 | 97.05 | 80956.0 | 295.4 | 97.05 | 80937.0 | 295.5 | 97.05 | 80940.0 | 295.5 | 97.05 |
| 50% | Vmin | 112550.0 | 296.1 | 97.09 | 112550.0 | 296.1 | 97.08 | 112540.0 | 296.1 | 97.08 | 112530.0 | 296.1 | 97.09 | 112520.0 | 296.1 | 97.08 |
| 75% | Vmin | 174950.0 | 295.3 | 96.84 | 174950.0 | 295.3 | 96.84 | 174950.0 | 295.3 | 96.84 | 174930.0 | 295.3 | 96.84 | 174910.0 | 295.3 | 96.84 |
| 100% | Vmin | 237270.0 | 295.2 | 96.44 | 237210.0 | 295.2 | 96.45 | 237240.0 | 295.2 | 96.45 | 237290.0 | 295.2 | 96.44 | 237180.0 | 295.2 | 96.44 |
| 10% | Vnom | 24687.0 | 342.0 | 94.76 | 24682.0 | 342.0 | 94.77 | 24671.0 | 342.0 | 94.77 | 24671.0 | 342.0 | 94.76 | 24665.0 | 342.0 | 94.77 |
| 20% | Vnom | 54760.0 | 341.7 | 96.45 | 54742.0 | 341.7 | 96.45 | 54732.0 | 341.7 | 96.46 | 54740.0 | 341.7 | 96.45 | 54735.0 | 341.7 | 96.45 |
| 30% | Vnom | 80751.0 | 341.1 | 96.79 | 80740.0 | 341.1 | 96.79 | 80735.0 | 341.1 | 96.79 | 80729.0 | 341.1 | 96.79 | 80745.0 | 341.1 | 96.79 |
| 50% | Vnom | 112500.0 | 341.6 | 96.85 | 112480.0 | 341.6 | 96.85 | 112500.0 | 341.6 | 96.86 | 112490.0 | 341.6 | 96.86 | 112500.0 | 341.6 | 96.86 |
| 75% | Vnom | 174830.0 | 341.3 | 96.64 | 174840.0 | 341.3 | 96.64 | 174830.0 | 341.3 | 96.64 | 174840.0 | 341.3 | 96.64 | 174850.0 | 341.3 | 96.64 |
| 100% | Vnom | 237190.0 | 341.1 | 96.27 | 237220.0 | 341.1 | 96.26 | 237290.0 | 341.1 | 96.26 | 237300.0 | 341.1 | 96.26 | 237230.0 | 341.1 | 96.27 |
| 10% | Vmax | 24756.0 | 481.3 | 93.41 | 24765.0 | 481.3 | 93.41 | 24756.0 | 481.3 | 93.42 | 24767.0 | 481.3 | 93.44 | 24778.0 | 481.3 | 93.45 |
| 20% | Vmax | 54760.0 | 481.2 | 95.60 | 54745.0 | 481.2 | 95.60 | 54741.0 | 481.2 | 95.60 | 54741.0 | 481.2 | 95.60 | 54766.0 | 481.2 | 95.60 |
| 30% | Vmax | 80869.0 | 481.0 | 96.06 | 80862.0 | 481.0 | 96.05 | 80835.0 | 481.0 | 96.06 | 80852.0 | 481.0 | 96.05 | 80843.0 | 481.0 | 96.05 |
| 50% | Vmax | 112500.0 | 482.6 | 96.21 | 112520.0 | 481.9 | 96.22 | 112510.0 | 481.9 | 96.21 | 112510.0 | 481.9 | 96.21 | 112500.0 | 481.9 | 96.22 |
| 75% | Vmax | 174760.0 | 481.4 | 96.03 | 174770.0 | 481.4 | 96.04 | 174760.0 | 481.4 | 96.05 | 174740.0 | 481.4 | 96.04 | 174750.0 | 481.4 | 96.04 |
| 100% | Vmax | 237280.0 | 480.3 | 95.70 | 237260.0 | 480.3 | 95.69 | 237340.0 | 480.3 | 95.69 | 237340.0 | 480.3 | 95.69 | 237310.0 | 480.3 | 95.69 |

| Specified | | Sample #6 | | | Sample #7 | | | Sample #8 | | | Sample #9 | | | Sample #10 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Output Power | Input Voltage | Output Power | Input Voltage | Efficiency | Output Power | Input Voltage | Efficiency | Output Power | Input Voltage | Efficiency | Output Power | Input Voltage | Efficiency | Output Power | Input Voltage | Efficiency |
| (% of rated) | (Vdc) | (W) | (Vdc) | (%) | (W) | (Vdc) | (%) | (W) | (Vdc) | (%) | (W) | (Vdc) | (%) | (W) | (Vdc) | (%) |
| 10% | Vmin | 24642.0 | 295.9 | 95.21 | 24662.0 | 295.9 | 95.22 | 24671.0 | 295.9 | 95.22 | 24669.0 | 295.9 | 95.22 | 24657.0 | 295.9 | 95.23 |
| 20% | Vmin | 54708.0 | 296.4 | 96.787 | 54694.0 | 296.5 | 96.786 | 54714.0 | 296.5 | 96.787 | 54733.0 | 296.5 | 96.786 | 54722.0 | 296.5 | 96.795 |
| 30% | Vmin | 80965.0 | 295.5 | 97.052 | 80979.0 | 295.5 | 97.055 | 80963.0 | 295.5 | 97.050 | 80968.0 | 295.5 | 97.051 | 80973.0 | 295.5 | 97.049 |
| 50% | Vmin | 112510.0 | 296.1 | 97.084 | 112500.0 | 296.1 | 97.080 | 112510.0 | 296.1 | 97.082 | 112490.0 | 296.0 | 97.086 | 112500.0 | 296.1 | 97.082 |
| 75% | Vmin | 174970.0 | 295.3 | 96.845 | 174990.0 | 295.3 | 96.841 | 174960.0 | 295.3 | 96.840 | 174960.0 | 295.3 | 96.840 | 174990.0 | 295.3 | 96.839 |
| 100% | Vmin | 237180.0 | 295.2 | 96.445 | 237230.0 | 295.2 | 96.443 | 237200.0 | 295.2 | 96.436 | 237240.0 | 295.2 | 96.435 | 237250.0 | 295.2 | 96.438 |
| 10% | Vnom | 24653.0 | 342.0 | 94.759 | 24655.0 | 342.0 | 94.757 | 24632.0 | 342.0 | 94.763 | 24667.0 | 342.0 | 94.767 | 24672.0 | 342.0 | 94.765 |
| 20% | Vnom | 54760.0 | 341.7 | 96.451 | 54760.0 | 341.7 | 96.455 | 54757.0 | 341.7 | 96.453 | 54729.0 | 341.7 | 96.461 | 54730.0 | 341.7 | 96.458 |
| 30% | Vnom | 80736.0 | 341.1 | 96.791 | 80738.0 | 341.1 | 96.793 | 80751.0 | 341.1 | 96.794 | 80692.0 | 341.1 | 96.799 | 80693.0 | 341.1 | 96.791 |
| 50% | Vnom | 112480.0 | 341.6 | 96.858 | 112490.0 | 341.6 | 96.858 | 112490.0 | 341.6 | 96.858 | 112490.0 | 341.6 | 96.857 | 112500.0 | 341.6 | 96.858 |
| 75% | Vnom | 174880.0 | 341.3 | 96.639 | 174910.0 | 341.3 | 96.638 | 174900.0 | 341.3 | 96.639 | 174890.0 | 341.3 | 96.640 | 174930.0 | 341.3 | 96.635 |
| 100% | Vnom | 237240.0 | 341.1 | 96.265 | 237280.0 | 341.1 | 96.259 | 237250.0 | 341.1 | 96.260 | 237260.0 | 341.1 | 96.251 | 237260.0 | 341.1 | 96.253 |
| 10% | Vmax | 24746.0 | 481.3 | 93.451 | 24746.0 | 481.3 | 93.434 | 24738.0 | 481.3 | 93.440 | 24756.0 | 481.3 | 93.446 | 24767.0 | 481.3 | 93.444 |
| 20% | Vmax | 54813.0 | 481.2 | 95.599 | 54780.0 | 481.2 | 95.596 | 54764.0 | 481.2 | 95.596 | 54770.0 | 481.2 | 95.600 | 54783.0 | 481.2 | 95.601 |
| 30% | Vmax | 80855.0 | 481.0 | 96.055 | 80864.0 | 481.0 | 96.058 | 80799.0 | 481.0 | 96.051 | 80781.0 | 481.0 | 96.052 | 80794.0 | 481.0 | 96.045 |
| 50% | Vmax | 112520.0 | 481.9 | 96.220 | 112550.0 | 481.9 | 96.224 | 112500.0 | 481.9 | 96.222 | 112510.0 | 481.9 | 96.223 | 112530.0 | 481.9 | 96.220 |
| 75% | Vmax | 174770.0 | 481.4 | 96.042 | 174750.0 | 481.4 | 96.043 | 174680.0 | 481.4 | 96.042 | 174720.0 | 481.4 | 96.043 | 174740.0 | 481.4 | 96.044 |
| 100% | Vmax | 237340.0 | 480.3 | 95.686 | 237300.0 | 480.3 | 95.688 | 237300.0 | 480.3 | 95.688 | 237260.0 | 480.3 | 95.687 | 237320.0 | 480.3 | 95.685 |