Manufacturer: Power-One, Inc.

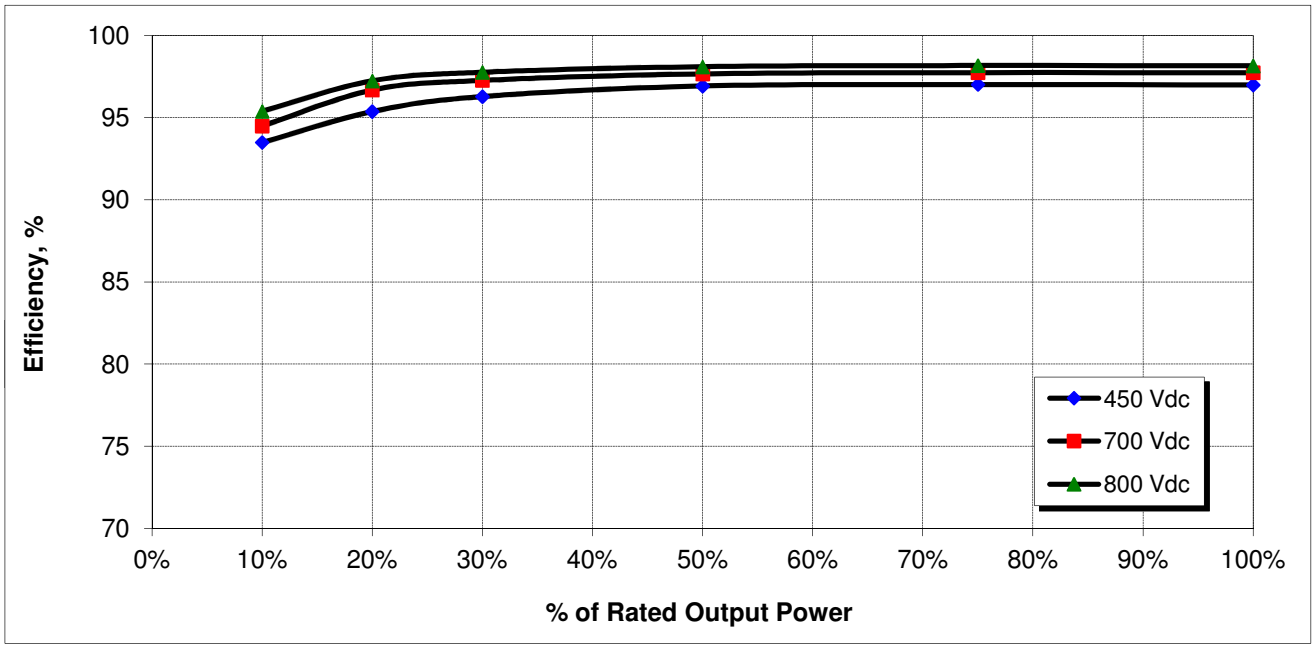
Model #: TRIO-20.0-TL-OUTD-US-480

Rated Maximum Continuous Output Power @25°C: 20.0 kW  Night Tare Loss: 0.6 W
Rated Maximum Continuous Output Power @40°C: 20.0 kW  Night Tare Loss: 0.6 W

Vomin: 450 Vdc  Vnom: 700 Vdc  Vmax: 800 Vdc

| | | Power Level (%; kW) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 10% | 20% | 30% | 50% | 75% | 100% | |
| Input Voltage (Vdc) | | 2.00 | 4.00 | 6.00 | 10.00 | 15.00 | 20.00 | Wtd |
| Vmin | 450 | 93.5 | 95.4 | 96.3 | 96.9 | 97.0 | 97.0 | 96.7 |
| Vnom | 700 | 94.5 | 96.7 | 97.3 | 97.7 | 97.7 | 97.7 | 97.5 |
| Vmax | 800 | 95.4 | 97.2 | 97.8 | 98.1 | 98.2 | 98.1 | 97.9 |

**CEC Efficiency = 97.5%**



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) | (W) | (Vdc) | (%) | (W) | (Vdc) | (%) | (W) | (Vdc) | (%) | (W) | (Vdc) | (%) | (W) | (Vdc) | (%) |
| 10% | Vmin | 1994 | 450 | 93.51 | 1993 | 450 | 93.49 | 1994 | 450 | 93.50 | 1994 | 450 | 93.49 | 1995 | 450 | 93.51 |
| 20% | Vmin | 4388 | 450 | 95.37 | 4388 | 450 | 95.38 | 4386 | 450 | 95.37 | 4386 | 450 | 95.37 | 4386 | 450 | 95.39 |
| 30% | Vmin | 6472 | 450 | 96.29 | 6472 | 450 | 96.28 | 6472 | 450 | 96.30 | 6472 | 450 | 96.29 | 6471 | 450 | 96.29 |
| 50% | Vmin | 10981 | 450 | 96.94 | 10982 | 450 | 96.93 | 10982 | 450 | 96.93 | 10981 | 450 | 96.93 | 10981 | 450 | 96.93 |
| 75% | Vmin | 15026 | 450 | 97.02 | 15026 | 450 | 97.02 | 15027 | 450 | 97.03 | 15026 | 450 | 97.02 | 15026 | 450 | 97.03 |
| 100% | Vmin | 19070 | 450 | 97.00 | 19070 | 450 | 97.00 | 19069 | 450 | 97.00 | 19069 | 450 | 96.99 | 19069 | 450 | 96.99 |
| 10% | Vnom | 1993 | 700 | 94.49 | 1992 | 700 | 94.50 | 1993 | 700 | 94.49 | 1992 | 700 | 94.50 | 1992 | 700 | 94.50 |
| 20% | Vnom | 4396 | 700 | 96.69 | 4395 | 700 | 96.68 | 4396 | 700 | 96.69 | 4397 | 700 | 96.69 | 4396 | 700 | 96.68 |
| 30% | Vnom | 6492 | 700 | 97.28 | 6491 | 700 | 97.27 | 6492 | 700 | 97.28 | 6490 | 700 | 97.27 | 6492 | 700 | 97.27 |
| 50% | Vnom | 10984 | 700 | 97.67 | 10984 | 700 | 97.67 | 10983 | 700 | 97.66 | 10985 | 700 | 97.68 | 10984 | 700 | 97.67 |
| 75% | Vnom | 15018 | 700 | 97.75 | 15019 | 700 | 97.75 | 15019 | 700 | 97.74 | 15019 | 700 | 97.75 | 15018 | 700 | 97.75 |
| 100% | Vnom | 19063 | 700 | 97.74 | 19063 | 700 | 97.74 | 19063 | 700 | 97.73 | 19062 | 700 | 97.74 | 19062 | 700 | 97.73 |
| 10% | Vmax | 1982 | 801 | 95.39 | 1980 | 801 | 95.39 | 1981 | 801 | 95.39 | 1981 | 801 | 95.39 | 1981 | 801 | 95.39 |
| 20% | Vmax | 4389 | 801 | 97.24 | 4389 | 801 | 97.24 | 4389 | 801 | 97.24 | 4388 | 801 | 97.24 | 4389 | 801 | 97.24 |
| 30% | Vmax | 6470 | 800 | 97.76 | 6471 | 801 | 97.75 | 6469 | 801 | 97.76 | 6470 | 801 | 97.77 | 6471 | 801 | 97.76 |
| 50% | Vmax | 10973 | 800 | 98.10 | 10974 | 800 | 98.10 | 10974 | 800 | 98.10 | 10974 | 800 | 98.09 | 10974 | 800 | 98.10 |
| 75% | Vmax | 15961 | 799 | 98.17 | 15961 | 799 | 98.17 | 15962 | 800 | 98.17 | 15963 | 800 | 98.17 | 15963 | 800 | 98.17 |
| 100% | Vmax | 19086 | 800 | 98.15 | 19085 | 800 | 98.16 | 19086 | 800 | 98.15 | 19086 | 800 | 98.15 | 19087 | 800 | 98.15 |

| 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 | 1994 | 450 | 93.49 | 1994 | 450 | 93.50 | | | | | | | | | |
| 20% | Vmin | 4385 | 450 | 95.37 | 4386 | 450 | 95.38 | | | | | | | | | |
| 30% | Vmin | 6471 | 450 | 96.29 | 6472 | 450 | 96.29 | | | | | | | | | |
| 50% | Vmin | 10981 | 450 | 96.93 | 10982 | 450 | 96.93 | | | | | | | | | |
| 75% | Vmin | 15025 | 450 | 97.02 | 15025 | 450 | 97.02 | | | | | | | | | |
| 100% | Vmin | 19068 | 450 | 96.99 | 19069 | 450 | 96.99 | | | | | | | | | |
| 10% | Vnom | 1992 | 700 | 94.50 | 1992 | 700 | 94.51 | | | | | | | | | |
| 20% | Vnom | 4397 | 700 | 96.68 | 4396 | 700 | 96.68 | | | | | | | | | |
| 30% | Vnom | 6491 | 700 | 97.27 | 6492 | 700 | 97.27 | | | | | | | | | |
| 50% | Vnom | 10985 | 700 | 97.68 | 10984 | 700 | 97.67 | | | | | | | | | |
| 75% | Vnom | 15019 | 700 | 97.75 | 15018 | 700 | 97.75 | | | | | | | | | |
| 100% | Vnom | 19064 | 700 | 97.74 | 19062 | 700 | 97.74 | | | | | | | | | |
| 10% | Vmax | 1982 | 801 | 95.39 | 1983 | 801 | 95.39 | | | | | | | | | |
| 20% | Vmax | 4388 | 801 | 97.24 | 4388 | 801 | 97.24 | | | | | | | | | |
| 30% | Vmax | 6470 | 801 | 97.76 | 6470 | 801 | 97.76 | | | | | | | | | |
| 50% | Vmax | 10975 | 800 | 98.09 | 10975 | 800 | 98.10 | | | | | | | | | |
| 75% | Vmax | 15963 | 800 | 98.17 | 15963 | 800 | 98.17 | | | | | | | | | |
| 100% | Vmax | 19086 | 800 | 98.15 | 19086 | 800 | 98.15 | | | | | | | | | |