Manufacturer: Power Electronics

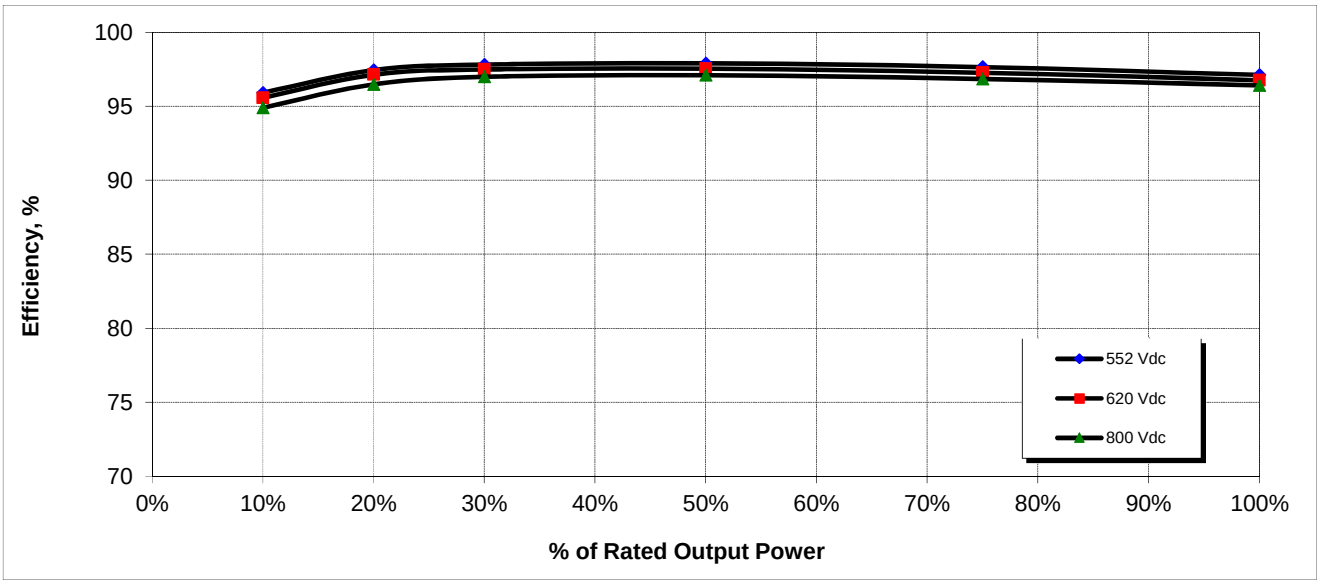
Model #: FS1050CU (390Vac)

Rated Maximum Continuous Output Power: 1190.0 kW  Night Tare Loss: -314 W

Vmin: 552 Vdc  Vnom: 620 Vdc  Vmax: 800 Vdc

| | | Power Level (%; kW) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 10% | 20% | 30% | 50% | 75% | 100% | |
| Input Voltage (Vdc) | | 119.00 | 238.00 | 357.00 | 595.00 | 892.50 | 1190.00 | Wtd |
| Vmin | 552 | 95.9 | 97.5 | 97.8 | 97.9 | 97.7 | 97.1 | 97.6 |
| Vnom | 620 | 95.6 | 97.1 | 97.5 | 97.5 | 97.3 | 96.8 | 97.3 |
| Vmax | 800 | 94.9 | 96.5 | 97.0 | 97.1 | 96.9 | 96.4 | 96.8 |

**CEC Efficiency of Inverter and MV TP1 Transformer = 97.0%**



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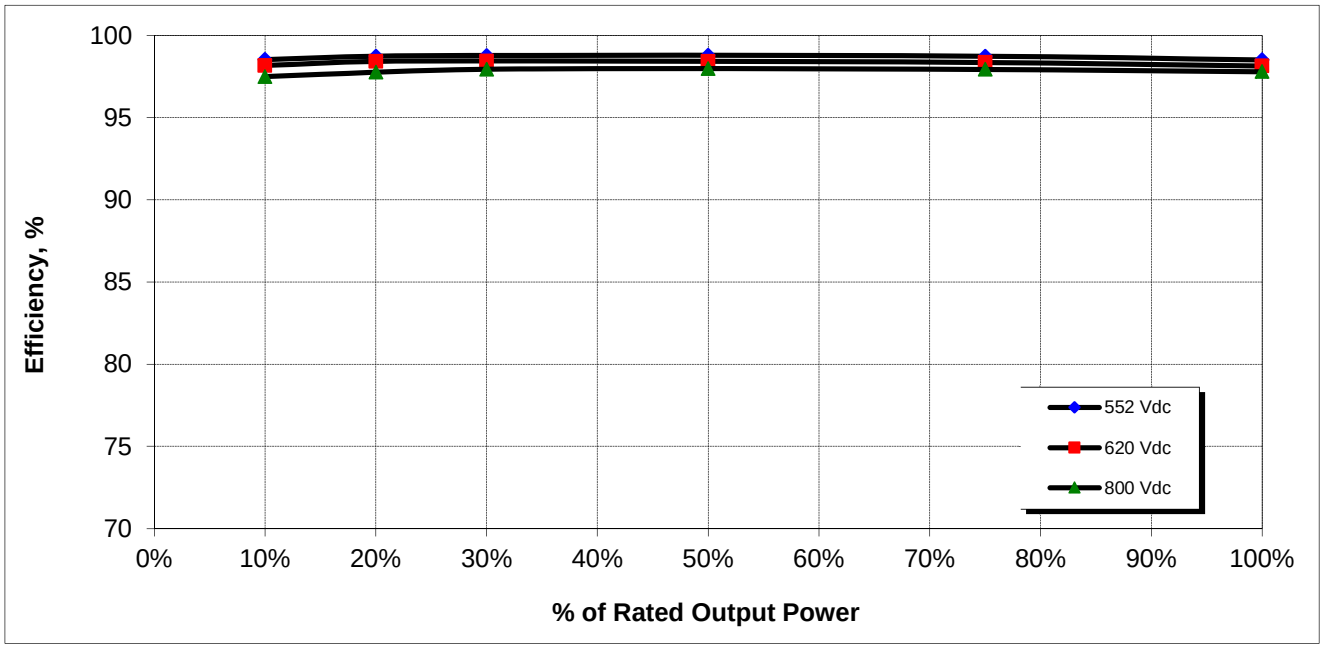
| | | Power Level (%; kW) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 10% | 20% | 30% | 50% | 75% | 100% | |
| Input Voltage (Vdc) | | 119.00 | 238.00 | 357.00 | 595.00 | 892.50 | 1190.00 | Wtd |
| Vmin | 552 | 98.5 | 98.7 | 98.8 | 98.8 | 98.7 | 98.5 | 98.7 |
| Vnom | 620 | 98.2 | 98.4 | 98.4 | 98.4 | 98.4 | 98.1 | 98.4 |
| Vmax | 800 | 97.5 | 97.8 | 97.9 | 98.0 | 97.9 | 97.8 | 97.9 |

**Inverter Efficiency only = 98.5%**




**1200KVA TP1 MV Transformer Efficiency**

| | | Power Level (%; kW) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 10% | 20% | 30% | 50% | 75% | 100% | |
| Input Voltage (Vdc) | | 119.00 | 238.00 | 357.00 | 595.00 | 892.50 | 1190.00 | Wtd |
| Vmin | 552 | 97.35 | 98.69 | 99.03 | 99.10 | 98.90 | 98.59 | 98.87 |
| Vnom | 620 | 97.35 | 98.69 | 99.03 | 99.10 | 98.90 | 98.59 | 98.87 |
| Vmax | 800 | 97.35 | 98.69 | 99.03 | 99.10 | 98.90 | 98.59 | 98.87 |

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 | 116647.0 | 554.7 | 98.5 | 116542.0 | 554.7 | 98.6 | 117131.7 | 554.8 | 98.5 | 117069.0 | 554.7 | 98.5 | 116673.0 | 554.8 | 98.5 |
| 20% | Vmin | 246360.0 | 554.5 | 98.7 | 246033.7 | 554.6 | 98.7 | 246421.0 | 554.6 | 98.7 | 245876.0 | 554.6 | 98.8 | 246781.3 | 554.5 | 98.7 |
| 30% | Vmin | 366618.0 | 554.4 | 98.8 | 367438.0 | 554.4 | 98.8 | 366414.7 | 554.3 | 98.8 | 367279.7 | 554.4 | 98.8 | 366723.0 | 554.4 | 98.8 |
| 50% | Vmin | 607435.3 | 554.1 | 98.8 | 606852.7 | 554.1 | 98.8 | 607673.7 | 554.0 | 98.8 | 607840.3 | 554.0 | 98.8 | 607746.0 | 554.0 | 98.8 |
| 75% | Vmin | 923989.0 | 553.5 | 98.7 | 922111.3 | 553.6 | 98.7 | 925343.3 | 553.6 | 98.7 | 921729.0 | 553.4 | 98.7 | 925209.3 | 553.6 | 98.8 |
| 100% | Vmin | 1220403.3 | 552.8 | 98.5 | 1218386.7 | 552.8 | 98.5 | 1219686.7 | 552.8 | 98.5 | 1219026.7 | 552.9 | 98.5 | 1221283.3 | 552.8 | 98.5 |
| 10% | Vnom | 116511.3 | 622.7 | 98.0 | 116488.0 | 622.7 | 98.0 | 116536.7 | 622.7 | 98.2 | 117124.3 | 622.7 | 98.3 | 117007.3 | 622.8 | 98.3 |
| 20% | Vnom | 246447.3 | 622.6 | 98.4 | 245990.3 | 622.6 | 98.4 | 245986.7 | 622.6 | 98.4 | 246101.0 | 622.6 | 98.4 | 245687.3 | 622.6 | 98.4 |
| 30% | Vnom | 367023.7 | 622.4 | 98.5 | 365066.0 | 622.4 | 98.4 | 367740.3 | 622.4 | 98.5 | 365256.0 | 622.4 | 98.4 | 366831.0 | 622.5 | 98.4 |
| 50% | Vnom | 605289.7 | 622.2 | 98.4 | 604385.3 | 622.2 | 98.4 | 607652.3 | 622.1 | 98.4 | 604630.7 | 622.2 | 98.4 | 607574.3 | 622.2 | 98.4 |
| 75% | Vnom | 917842.0 | 621.7 | 98.4 | 921710.7 | 621.7 | 98.4 | 921529.3 | 621.7 | 98.4 | 917294.0 | 621.7 | 98.4 | 924483.3 | 621.6 | 98.4 |
| 100% | Vnom | 1220940.0 | 620.9 | 98.1 | 1218270.0 | 620.9 | 98.1 | 1217086.7 | 620.9 | 98.2 | 1217503.3 | 621.0 | 98.2 | 1217850.0 | 621.0 | 98.2 |
| 10% | Vmax | 116752.0 | 799.0 | 97.6 | 117010.0 | 798.9 | 97.6 | 116261.0 | 799.0 | 97.5 | 116716.0 | 799.0 | 97.5 | 116676.0 | 799.0 | 97.5 |
| 20% | Vmax | 246468.7 | 799.9 | 97.8 | 244929.7 | 799.9 | 97.8 | 245518.3 | 799.9 | 97.7 | 245367.7 | 799.9 | 97.7 | 245235.0 | 799.9 | 97.7 |
| 30% | Vmax | 365075.3 | 799.8 | 97.9 | 365868.7 | 799.7 | 97.9 | 364653.7 | 799.8 | 97.9 | 365845.0 | 799.7 | 97.9 | 363945.3 | 799.8 | 98.0 |
| 50% | Vmax | 601642.7 | 799.7 | 98.0 | 603107.7 | 799.7 | 98.0 | 604281.7 | 799.6 | 98.0 | 602513.0 | 799.8 | 98.0 | 605001.3 | 799.7 | 98.0 |
| 75% | Vmax | 917161.7 | 799.2 | 97.9 | 919119.0 | 799.0 | 97.9 | 910789.7 | 799.1 | 97.9 | 919839.0 | 799.2 | 97.9 | 916541.7 | 799.1 | 97.9 |
| 100% | Vmax | 1207136.7 | 798.6 | 97.8 | 1208486.7 | 798.7 | 97.8 | 1213740.0 | 798.6 | 97.8 | 1211923.3 | 798.5 | 97.8 | 1212776.7 | 798.5 | 97.8 |

| 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 | 116947.7 | 554.8 | 98.5 | 117206.7 | 554.7 | 98.5 | | | | | | | | | |
| 20% | Vmin | 246133.0 | 554.5 | 98.8 | 245972.3 | 554.6 | 98.8 | | | | | | | | | |
| 30% | Vmin | 367736.7 | 554.4 | 98.8 | 366441.3 | 554.4 | 98.8 | | | | | | | | | |
| 50% | Vmin | 607356.3 | 554.1 | 98.8 | 607556.0 | 554.0 | 98.8 | | | | | | | | | |
| 75% | Vmin | 923989.0 | 553.5 | 98.8 | 922035.7 | 553.6 | 98.8 | | | | | | | | | |
| 100% | Vmin | 1219923.3 | 552.8 | 98.5 | 1219326.7 | 552.8 | 98.5 | | | | | | | | | |
| 10% | Vnom | 116583.0 | 622.7 | 98.3 | 116820.3 | 622.7 | 98.2 | | | | | | | | | |
| 20% | Vnom | 246942.0 | 622.6 | 98.4 | 245557.0 | 622.6 | 98.4 | | | | | | | | | |
| 30% | Vnom | 365054.0 | 622.5 | 98.4 | 367674.0 | 622.4 | 98.5 | | | | | | | | | |
| 50% | Vnom | 603670.7 | 622.1 | 98.4 | 608721.3 | 622.2 | 98.4 | | | | | | | | | |
| 75% | Vnom | 918590.7 | 621.7 | 98.4 | 920518.7 | 621.6 | 98.4 | | | | | | | | | |
| 100% | Vnom | 1221553.3 | 621.0 | 98.2 | 1219926.7 | 620.9 | 98.2 | | | | | | | | | |
| 10% | Vmax | 115802.0 | 799.0 | 97.2 | 116936.0 | 799.0 | 97.5 | | | | | | | | | |
| 20% | Vmax | 246472.7 | 799.8 | 97.7 | 244847.0 | 799.8 | 97.8 | | | | | | | | | |
| 30% | Vmax | 367016.0 | 799.7 | 97.9 | 363773.0 | 799.7 | 98.0 | | | | | | | | | |
| 50% | Vmax | 600778.0 | 799.8 | 98.0 | 606979.3 | 799.6 | 98.0 | | | | | | | | | |
| 75% | Vmax | 911702.3 | 799.2 | 97.9 | 921141.3 | 799.1 | 97.9 | | | | | | | | | |
| 100% | Vmax | 1211523.3 | 798.7 | 97.8 | 1210966.7 | 798.6 | 97.8 | | | | | | | | | |