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	279.9	251.6	92.682	280	251.8	92.654	279	251.5	92.542	280.2	251.2	92.537	279.2	251.3	92.042
20%	Vmin	766.2	251.3	96.487	765.6	251.4	96.363	764.3	251.2	96.346	764.3	251.3	96.314	764.6	251.2	96.284
30%	Vmin	1206.3	252	97.008	1202.1	251.8	96.965	1201.3	251.6	96.836	1205.6	251.8	96.772	1200.4	251.6	96.651
50%	Vmin	2000	251.8	96.855	2003	252.1	96.810	2002	252	96.715	2000	251.9	96.668	2002	252.2	96.618
75%	Vmin	2985	252.5	96.472	2972	253	96.448	2984	253	96.351	2987	253.7	96.321	2983	253.3	96.288
100%	Vmin	3840	253	96.059	3854	253	96.056	3848	253	96.053	3851	253.6	95.962	3845	253.7	95.942
10%	Vnom	281.5	310.5	92.320	283.7	310.5	91.965	283.9	310.5	91.840	282	310.5	91.802	282.7	310.5	91.797
20%	Vnom	759.5	310.5	96.253	760.3	310.6	96.212	759.1	310.6	96.176	758.3	310.6	96.139	759.4	310.6	96.113
30%	Vnom	1209.1	310.7	96.352	1208.8	310.6	96.312	1209.2	310.7	96.311	1209.1	310.6	96.297	1208.5	310.6	96.289
50%	Vnom	2007	310.6	96.535	2007	310.7	96.494	2009	310.7	96.490	2007	310.7	96.444	2006	310.7	96.396
75%	Vnom	2974	310.7	96.119	2974	310.8	96.092	2973	310.7	96.058	2973	310.9	96.028	2972	310.9	95.935
100%	Vnom	3883	310.8	95.666	3887	310.8	95.640	3883	310.8	95.477	3884	310.9	95.433	3885	310.8	95.361
10%	Vmax	278.6	480.2	89.315	278.8	480.3	89.102	279.6	480.3	89.095	278.8	480.3	89.045	279.2	480.2	89.045
20%	Vmax	763.5	480.4	94.799	764.1	480.3	94.751	762.9	480.4	94.711	763.7	480.3	94.700	762.9	480.3	94.626
30%	Vmax	1192.6	480.3	95.650	1193.3	480.3	95.626	1194.3	480.3	95.534	1194.1	480.3	95.509	1193.6	480.4	95.495
50%	Vmax	2007	480.4	95.571	2007	480.3	95.569	2007	480.4	95.526	2006	480.3	95.524	2006	480.3	95.522
75%	Vmax	2979	480.4	95.391	2977	480.4	95.361	2980	480.4	95.328	2979	480.3	95.294	2981	480.5	95.237
100%	Vmax	3885	480.3	94.965	3886	480.4	94.965	3885	480.5	94.965	3885	480.6	94.919	3884	480.5	94.733

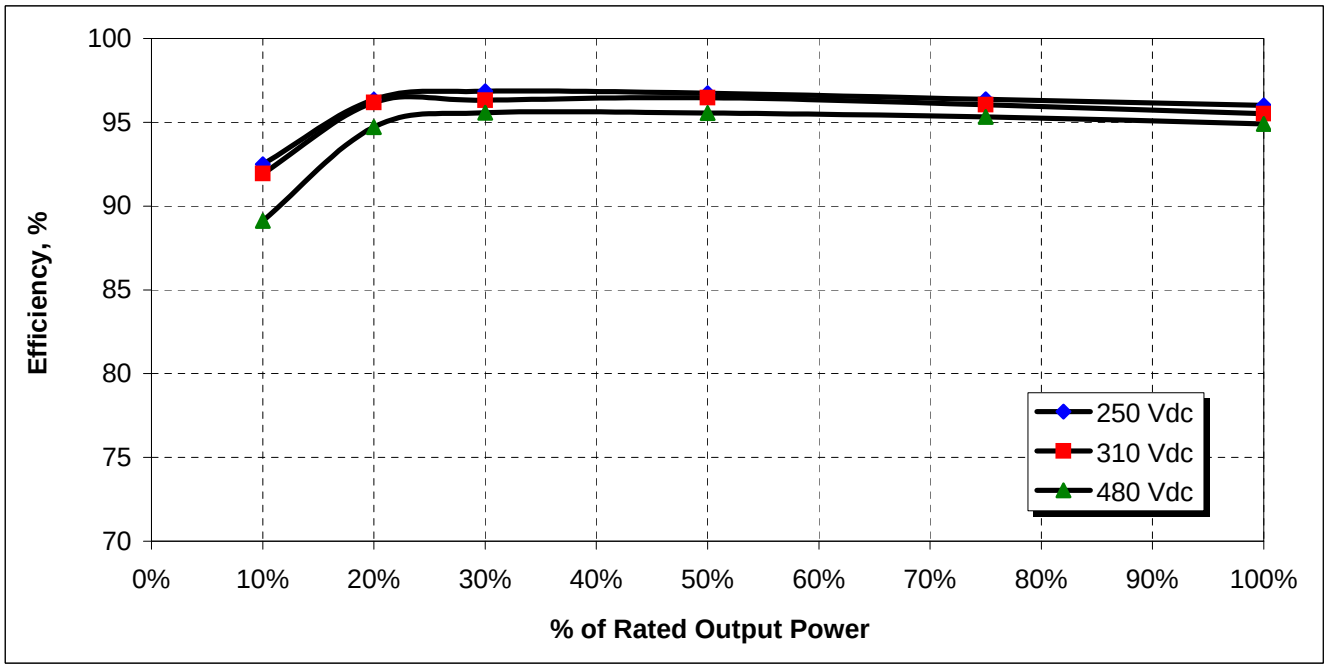
Specified		Sample #6			Sample #7			Sample #8			Sample #9			Sample #10		
Output Power	Input Voltage	Output Power	Input Voltage	Efficiency	Output Power	Input Voltage	Efficiency	Output Power	Input Voltage	Efficiency	Output Power	Input Voltage	Efficiency	Output Power	Input Voltage	Efficiency
(% of rated)	(Vdc)	(W)	(Vdc)	(%)	(W)	(Vdc)	(%)	(W)	(Vdc)	(%)	(W)	(Vdc)	(%)	(W)	(Vdc)	(%)
10%	Vmin															
20%	Vmin															
30%	Vmin															
50%	Vmin															
75%	Vmin															
100%	Vmin															
10%	Vnom															
20%	Vnom															
30%	Vnom															
50%	Vnom															
75%	Vnom															
100%	Vnom															
10%	Vmax															
20%	Vmax															
30%	Vmax															
50%	Vmax															
75%	Vmax															
100%	Vmax															

Manufacturer: SunPower Corp. (original Mfr.SMA)

Model #: SPR-4000m (240V)

Rated Maximum Continuous Output Power: 4.00 kW Night Tare Loss: 0.17 W

Vmin: 250 Vdc Vnom: 310 Vdc Vmax: 480 Vdc

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		0.40	0.80	1.20	2.00	3.00	4.00	Wtd
Vmin	250	92.5	96.4	96.8	96.7	96.4	96.0	96.3
Vnom	310	91.9	96.2	96.3	96.5	96.0	95.5	96.0
Vmax	480	89.1	94.7	95.6	95.5	95.3	94.9	95.1

CEC Efficiency = 96.0%