Manufacturer: SMA Technology AG

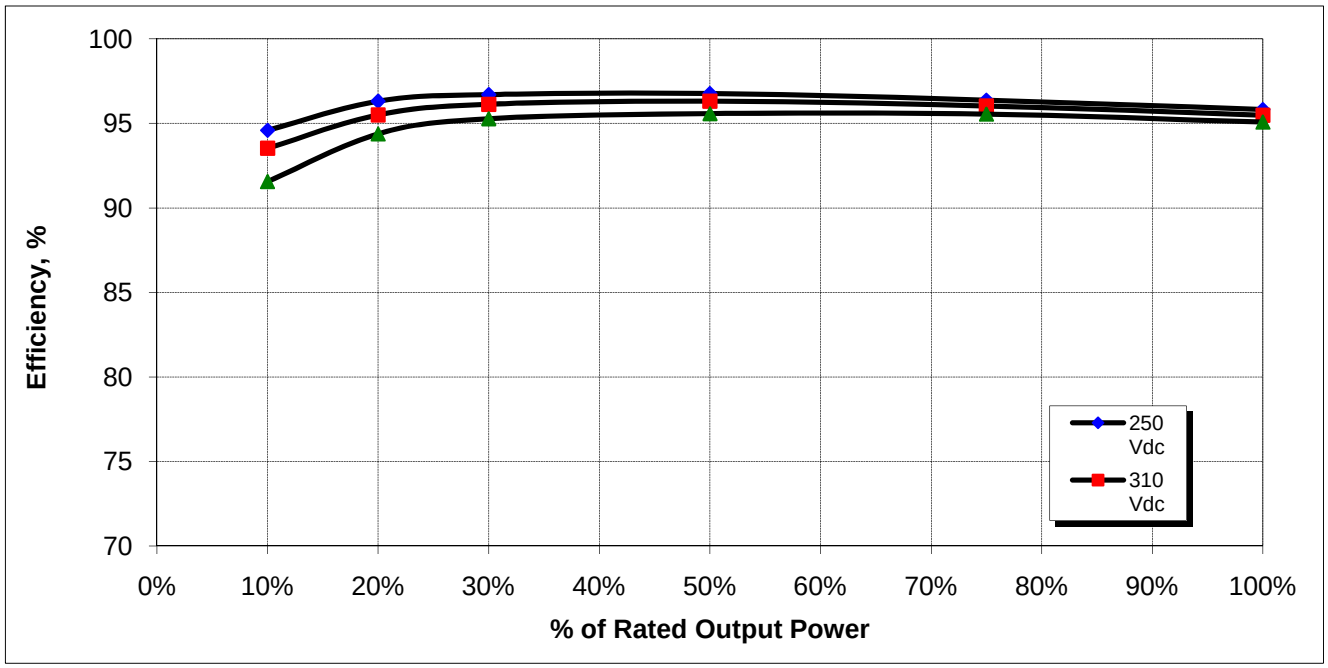
Model #: **SB3800-US**

Rated Maximum Continuous Output Power: 4.05 kW Night Tare Loss: 0.08 W

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

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		0.41	0.81	1.22	2.03	3.04	4.05	Wtd
Vmin	250	94.6	96.3	96.7	96.8	96.4	95.8	96.4
Vnom	310	93.5	95.5	96.1	96.3	96.0	95.5	95.9
Vmax	480	91.6	94.4	95.3	95.6	95.6	95.1	95.3

CEC Efficiency = 96.0%



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	438.44	250.39	94.680	438.5	250.39	94.560	438.5	250.39	94.580	438.4	250.39	94.560	438.4	250.4	94.590
20%	Vmin	825.62	250.27	96.220	825.5	250.27	96.190	825.2	250.27	96.240	825.4	250.26	96.370	825.5	250.26	96.350
30%	Vmin	1213.1	253.19	96.690	1213	253.18	96.670	1213	253.18	96.720	1213	253.17	96.710	1213	253.17	96.720
50%	Vmin	1729.7	253.05	96.750	1732	253.05	96.750	1735	253.06	96.770	1736	253.07	96.780	1736	253.07	96.790
75%	Vmin	2679.3	252.86	96.360	2679	252.86	96.370	2679	252.87	96.380	2679	252.87	96.380	2679	252.87	96.380
100%	Vmin	3623.5	250.25	95.840	3624	250.24	95.830	3625	250.24	95.830	3625	250.21	95.830	3625	250.21	95.840
10%	Vnom	452.53	310.32	93.440	452.3	310.31	93.510	452.1	310.3	93.520	452.1	310.31	93.530	452.2	310.31	93.510
20%	Vnom	831.9	310.29	95.460	831.5	310.26	95.490	830.6	310.23	95.460	831.7	310.22	95.510	833	310.22	95.500
30%	Vnom	1201.8	311.17	96.150	1202	311.18	96.150	1202	311.18	96.140	1202	311.18	96.120	1202	311.17	96.110
50%	Vnom	1726.2	311.08	96.280	1726	311.08	96.280	1726	311.08	96.290	1726	311.08	96.280	1726	311.08	96.290
75%	Vnom	2673.3	310.88	96.010	2673	310.89	96.030	2673	310.89	96.040	2673	310.89	96.030	2673	310.89	96.030
100%	Vnom	3662	310.68	95.480	3662	310.69	95.470	3662	310.68	95.470	3662	310.68	95.470	3663	310.68	95.480
10%	Vmax	435.5	478.98	91.440	439.1	478.97	91.520	441.6	478.98	91.460	442	478.98	91.530	442.1	478.99	91.730
20%	Vmax	819.39	479.01	94.450	819.5	479.01	94.410	819.5	479.01	94.370	819.4	479.01	94.400	819.4	479.02	94.340
30%	Vmax	1203.3	478.98	95.290	1203	478.98	95.250	1203	478.98	95.250	1203	478.99	95.330	1203	478.98	95.320
50%	Vmax	1727	478.81	95.540	1728	478.79	95.570	1728	478.78	95.560	1728	478.79	95.550	1728	478.78	95.600
75%	Vmax	2672.6	478.76	95.540	2672	478.76	95.550	2672	478.77	95.560	2672	478.77	95.560	2672	478.77	95.550
100%	Vmax	3630.7	478.62	95.080	3631	478.62	95.090	3631	478.62	95.090	3630	478.62	95.090	3631	478.62	95.080

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	438.52	250.4	94.650	438.5	250.4	94.600	438.6	250.4	94.560	438.5	250.39	94.520	438.5	250.4	94.610
20%	Vmin	825.54	250.26	96.400	825.5	250.26	96.350	825.6	250.26	96.390	825.5	250.26	96.370	825.6	250.26	96.310
30%	Vmin	1213	253.18	96.720	1213	253.18	96.740	1213	253.18	96.710	1213	253.17	96.710	1213	253.16	96.690
50%	Vmin	1736	253.07	96.810	1736	253.07	96.780	1731	253.07	96.770	1730	253.08	96.780	1735	253.08	96.780
75%	Vmin	2678.8	252.87	96.390	2679	252.87	96.390	2679	252.86	96.400	2679	25286	96.390	2679	252.86	96.390
100%	Vmin	3624	250.22	95.840	3624	250.23	95.830	3624	250.23	95.830	3624	250.24	95.820	3624	250.24	95.830
10%	Vnom	452.15	310.31	93.500	452.1	310.31	93.510	452.1	310.32	93.590	452.2	310.32	93.580	452.1	310.32	93.580
20%	Vnom	833.54	310.22	95.510	833.6	310.23	95.540	831.5	310.2	95.520	832.2	310.23	95.490	833.3	310.22	95.490
30%	Vnom	1202	311.17	96.130	1202	311.16	96.120	1202	311.17	96.120	1205	311.16	96.110	1207	311.16	96.120
50%	Vnom	1726	311.08	96.300	1726	311.08	96.330	1726	311.08	96.350	1726	311.08	96.350	1726	311.08	96.350
75%	Vnom	2673.2	310.89	96.030	2673	310.89	96.030	2673	310.9	96.030	2673	310.9	96.030	2673	310.9	96.040
100%	Vnom	3663	310.68	95.470	3663	310.68	95.470	3662	310.68	95.470	3662	310.67	95.480	3663	310.68	95.480
10%	Vmax	442.12	478.98	91.660	442.1	478.97	91.500	442	478.97	91.470	442	478.98	91.600	442	478.98	91.650
20%	Vmax	819.37	479.02	94.400	819.5	479.02	94.380	819.4	479.02	94.360	819.4	479.02	94.330	819.5	479.01	94.360
30%	Vmax	1203.3	478.98	95.320	1203	478.98	95.290	1203	478.98	95.210	1203	478.98	95.280	1203	478.99	95.280
50%	Vmax	1727.6	478.8	95.600	1728	478.81	95.610	1728	478.81	95.630	1728	478.81	95.590	1728	478.81	95.590
75%	Vmax	2672.8	478.77	95.570	2673	478.77	95.550	2673	478.77	95.550	2673	478.77	95.550	2673	478.77	95.560
100%	Vmax	3630.8	478.62	95.080	3630	478.62	95.080	3631	478.63	95.080	3631	478.62	95.070	3630	487.62	95.080