Manufacturer: SMA Solar Technologie AG

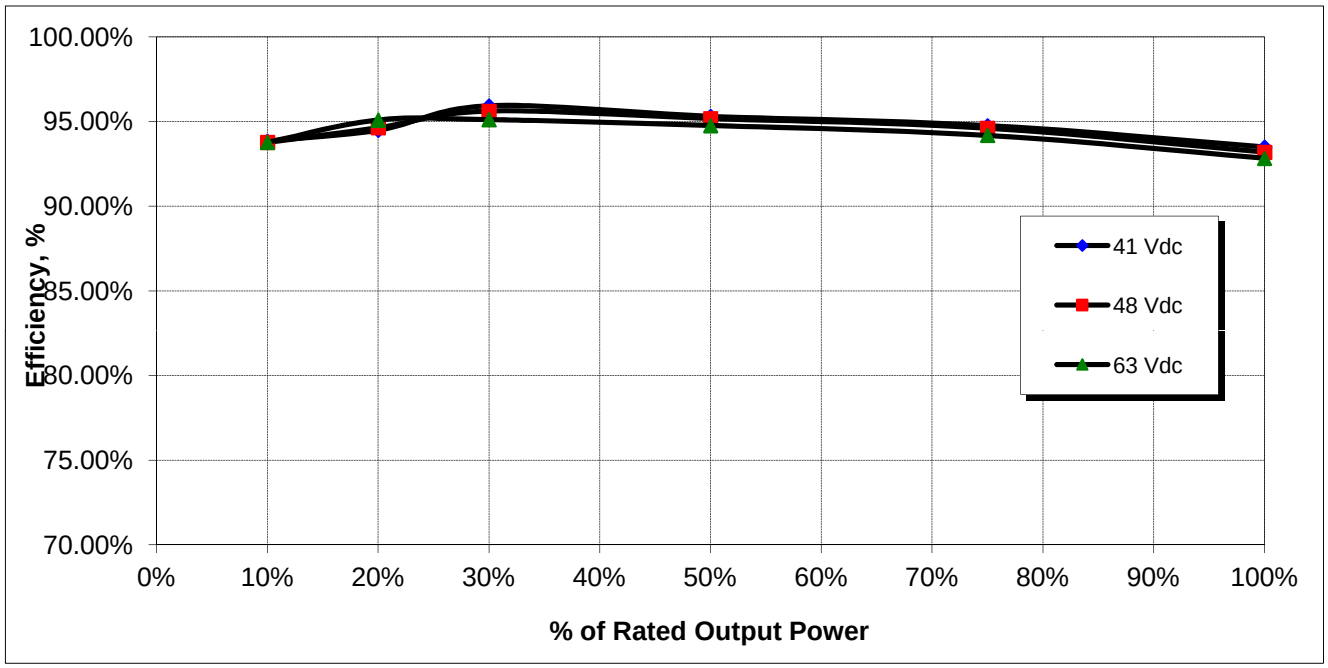
Model #: SI4548-US

Rated Maximum Continuous Output Power: 4 kW Night Tare Loss: N/A W

Vmin: 41 Vdc Vnom: 48 Vdc Vmax: 63 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	41	93.84%	94.48%	95.93%	95.31%	94.76%	93.49%	94.90%
Vnom	48	93.76%	94.63%	95.61%	95.18%	94.60%	93.19%	94.74%
Vmax	63	93.77%	95.08%	95.11%	94.76%	94.18%	92.83%	94.37%

Inverter Efficiency= 94.5%



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)	(%)	(kW)	(Vdc)	(%)
10%	Vmin	530.12	41.368	0.934113	530.091	41.368	0.934272	530.095	41.367	0.934917	530.218	41.368	0.934618	530.203	41.368	0.938401
20%	Vmin	894.74	41.355	0.944903	894.631	41.355	0.944865	894.583	41.354	0.944676	894.493	41.354	0.944936	894.48	41.354	0.944911
30%	Vmin	1251.4	41.338	0.959111	1251.58	41.337	0.959072	1251.5	41.337	0.959173	1252.78	41.337	0.959257	1252.17	41.336	0.959201
50%	Vmin	2204.9	41.28	0.952815	2205.07	41.28	0.952884	2205.07	41.281	0.953115	2204.91	41.281	0.952902	2204.92	41.281	0.952976
75%	Vmin	3158.7	41.223	0.94752	3158.59	41.224	0.947456	3158.55	41.224	0.94752	3158.3	41.225	0.947508	3158.45	41.225	0.947547
100%	Vmin	4299.9	41.155	0.934714	4299.11	41.155	0.934752	4298.26	41.155	0.934748	4298.84	41.155	0.9349	4299.27	41.155	0.934823
10%	Vnom	528.18	48.091	0.938096	528.189	48.091	0.937977	528.176	48.091	0.937423	528.15	48.092	0.93788	528.169	48.091	0.938017
20%	Vnom	863.15	48.08	0.94629	863.095	48.081	0.946289	863.057	48.08	0.946039	863.158	48.079	0.946304	863.213	48.078	0.946205
30%	Vnom	1249.9	48.06	0.956123	1250.15	48.061	0.956021	1253.43	48.061	0.955978	1257.75	48.061	0.956217	1257.71	48.06	0.956186
50%	Vnom	2195.3	48.015	0.9515	2194.88	48.016	0.951643	2194.4	48.015	0.951794	2194.43	48.015	0.951704	2194.51	48.016	0.951512
75%	Vnom	3159.9	47.968	0.945846	3160.27	47.968	0.945854	3160.38	47.967	0.945961	3160.33	47.968	0.945901	3160.38	47.968	0.945944
100%	Vnom	4280.4	47.91	0.931498	4279.86	47.91	0.931709	4279.19	47.91	0.931808	4278.75	47.91	0.931885	4278.89	47.911	0.931897
10%	Vmax	533.14	63.117	0.937464	534.132	63.118	0.937534	535.257	63.117	0.93724	537.73	63.117	0.937815	538.628	63.116	0.937788
20%	Vmax	887.66	63.109	0.950955	887.84	63.11	0.950927	888.093	63.109	0.950778	888.143	63.109	0.950886	888.335	63.109	0.950678
30%	Vmax	1256.7	63.093	0.950654	1256.9	63.094	0.950785	1258.26	63.094	0.950728	1259.5	63.094	0.950745	1259.95	63.093	0.950913
50%	Vmax	2252.6	63.063	0.9476	2252.13	63.063	0.947782	2251.54	63.063	0.947726	2251.49	63.064	0.947693	2251.12	63.063	0.947601
75%	Vmax	3156.2	63.025	0.941543	3156.3	63.025	0.941569	3156.11	63.025	0.941616	3156.34	63.026	0.941761	3156.09	63.026	0.941681
100%	Vmax	4297.7	62.984	0.928109	4297.94	62.984	0.928201	4297.84	62.984	0.928209	4298.09	62.984	0.928375	4298.23	62.984	0.928229

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)	(kW)	(Vdc)	(%)	(kW)	(Vdc)	(%)	(kW)	(Vdc)	(%)	(kW)	(Vdc)	(%)	(kW)	(Vdc)	(%)
10%	Vmin	530.23	41.369	0.941184	530.265	41.369	0.941535	530.306	41.369	0.941538	530.315	41.369	0.941806	530.347	41.369	0.941258
20%	Vmin	894.61	41.355	0.944972	894.587	41.355	0.94496	894.614	41.355	0.944633	894.643	41.355	0.944713	894.662	41.356	0.944807
30%	Vmin	1251.6	41.337	0.959463	1251.39	41.337	0.959611	1251.39	41.337	0.959427	1252.33	41.337	0.959449	1252.26	41.338	0.959314
50%	Vmin	2205	41.281	0.95304	2205.09	41.281	0.953058	2205.49	41.281	0.953297	2205.46	41.281	0.953341	2205.49	41.281	0.95328
75%	Vmin	3158.8	41.225	0.947663	3159	41.226	0.947584	3159.44	41.227	0.947665	3159.5	41.227	0.947811	3158.92	41.227	0.947791
100%	Vmin	4299.4	41.156	0.934901	4299.39	41.156	0.934898	4299.06	41.156	0.93505	4299.23	41.156	0.935107	4299.38	41.156	0.935111
10%	Vnom	528.17	48.092	0.937554	528.152	48.092	0.937247	528.168	48.092	0.937953	528.176	48.092	0.93722	528.207	48.092	0.937077
20%	Vnom	863.24	48.079	0.94651	863.221	48.081	0.946517	863.223	48.08	0.946368	863.281	48.079	0.946537	863.363	48.078	0.946364
30%	Vnom	1259.6	48.06	0.956168	1263.63	48.061	0.956137	1263.51	48.06	0.956241	1263.51	48.06	0.95619	1263.55	48.06	0.956213
50%	Vnom	2194.5	48.016	0.951659	2194.29	48.016	0.951879	2194.39	48.016	0.951885	2194.24	48.016	0.952014	2194.33	48.016	0.952177
75%	Vnom	3160.8	47.968	0.946087	3161.12	47.968	0.946103	3161.07	47.968	0.946128	3161.49	47.969	0.9462	3161.53	47.968	0.94607
100%	Vnom	4278.7	47.911	0.931954	4278.53	47.91	0.931995	4278.26	47.91	0.93204	4278.42	47.91	0.932065	4279.22	47.911	0.932115
10%	Vmax	539.31	63.116	0.937978	539.312	63.117	0.937303	539.433	63.117	0.938192	539.643	63.117	0.937789	539.79	63.117	0.937813
20%	Vmax	888.45	63.11	0.950923	888.588	63.11	0.950372	888.68	63.11	0.951158	888.421	63.11	0.950755	888.179	63.11	0.950903
30%	Vmax	1259.9	63.093	0.951033	1259.56	63.094	0.950877	1259.61	63.094	0.950642	1259.76	63.094	0.950841	1259.81	63.095	0.953542
50%	Vmax	2251.3	63.063	0.947492	2250.84	63.063	0.947527	2251.25	63.063	0.947619	2251.42	63.063	0.947496	2251.24	63.063	0.9474
75%	Vmax	3156.3	63.026	0.94189	3156.63	63.026	0.941932	3156.78	63.026	0.941971	3156.88	63.027	0.941992	3156.64	63.027	0.941952
100%	Vmax	4298.5	62.984	0.928375	4299.45	62.984	0.928272	4300.1	62.984	0.92843	4299.76	62.985	0.928445	4299.59	62.984	0.928431