Manufacturer: SMA Solar Technologie AG

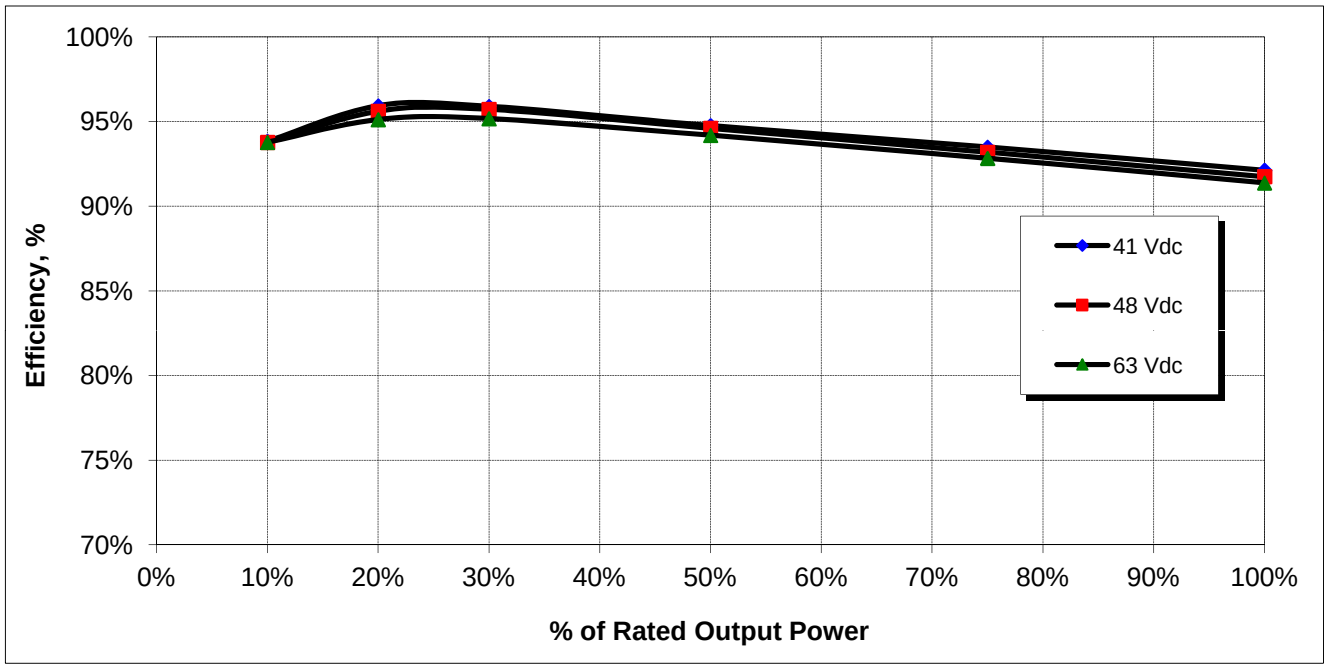
Model #: SI6048-US

Rated Maximum Continuous Output Power: 5 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)		0.50	1.00	1.50	2.50	3.75	5.00	Wtd
Vmin	41	93.8%	95.9%	95.9%	94.8%	93.5%	92.1%	94.1%
Vnom	48	93.8%	95.6%	95.7%	94.6%	93.2%	91.7%	93.9%
Vmax	63	93.8%	95.1%	95.2%	94.2%	92.8%	91.4%	93.5%

Inverter Efficiency = 94.0%



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)	(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	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
30%	Vmin	1603.5	41.316	0.95887	1602.14	41.316	0.958682	1601.58	41.316	0.958955	1600.94	41.316	0.958911	1600.7	41.316	0.958945
50%	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
75%	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
100%	Vmin	5764.9	41.065	0.9212	5764.31	41.064	0.921211	5764.68	41.065	0.921165	5764.83	41.065	0.921183	5764.89	41.064	0.921149
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	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
30%	Vnom	1584.5	48.045	0.957159	1584.84	48.045	0.957139	1584.9	48.045	0.957192	1584.96	48.045	0.957217	1584.96	48.045	0.957148
50%	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
75%	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
100%	Vnom	5746.8	47.835	0.917345	5747.34	47.835	0.917452	5746.93	47.834	0.917449	5747.08	47.835	0.917425	5747.46	47.835	0.917399
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	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
30%	Vmax	1590.9	63.079	0.951507	1590.87	63.079	0.951682	1590.91	63.079	0.951786	1590.85	63.078	0.95163	1590.69	63.078	0.951694
50%	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
75%	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
100%	Vmax	5753.3	62.925	0.913859	5753.35	62.925	0.913789	5753.48	62.925	0.91377	5753.84	62.925	0.913747	5754.25	62.925	0.913763

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	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
30%	Vmin	1600.7	41.316	0.9589	1600.9	41.317	0.958887	1600.45	41.317	0.958905	1600.46	41.317	0.959163	1600.81	41.317	0.959298
50%	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
75%	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
100%	Vmin	5765	41.065	0.921174	5765.26	41.065	0.921195	5764.93	41.065	0.92117	5766	41.065	0.921173	5766.48	41.065	0.921169
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	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
30%	Vnom	1584.9	48.045	0.957342	1585.05	48.045	0.957058	1585.11	48.045	0.95736	1585.1	48.046	0.957348	1585.28	48.045	0.957526
50%	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
75%	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
100%	Vnom	5747.7	47.835	0.917451	5748.81	47.835	0.917436	5748.89	47.835	0.917406	5748.42	47.835	0.917369	5748.67	47.835	0.917421
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	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
30%	Vmax	1590.7	63.079	0.951706	1590.79	63.08	0.951771	1591.16	63.08	0.951594	1591.31	63.08	0.951746	1591.55	63.08	0.95173
50%	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
75%	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
100%	Vmax	5753.4	62.925	0.913698	5753.12	62.925	0.91369	5752.81	62.926	0.913717	5751.42	62.926	0.913713	5751.22	62.926	0.913707