

Manufacturer: Direct Grid Technologies, LLC

Model #: DGM-S460

Serial #: 04041102QA

Insulation Value High

Rated Maximum Continuous Output Power: 0.479 kW

Tare Loss: -0.38 W

Vmin: 55 Vdc

Vnom: 60 Vdc

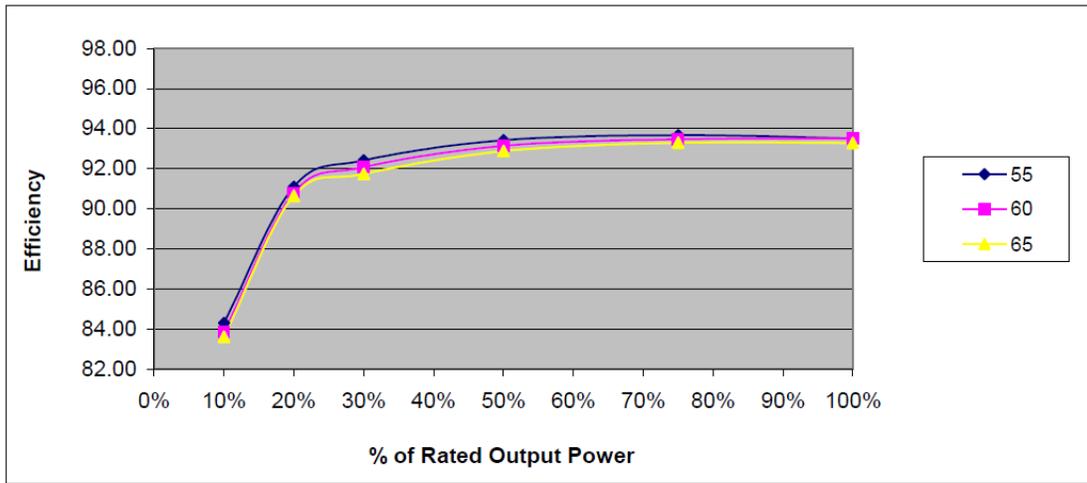
Vmax: 65 Vdc

Input Voltage (Vac)	Power Level (%; kW)							Wtd
	5%	10%	20%	30%	50%	75%	100%	
Vmin 55		84.30	91.10	92.42	93.43	93.68	93.52	92.96
Vnom 60		83.85	90.80	92.08	93.14	93.48	93.52	92.72
Vmax 65		83.61	90.65	91.75	92.89	93.30	93.29	92.51

Peak Efficiency: 93.7 %

Nominal Average Efficiency: 93.4 %

CEC Efficiency = 92.5%



All Efficiency data is within 3 standard deviations from the average? Pass
 All output power levels are within tolerances during Efficiency Test? Pass

Equipment Used:

Asset #	Description	Mfg	Model	Serial	Cal Date	Cal Due
E437Z	Power Analyzer	Yokogawa	WT3000	91F730638	5-Apr-11	5-Jul-11
I039	Data Logger	Yokogawa	MW100-E-1D	91HB30006	2-Aug-10	2-Aug-11

Test Engineer: Radhe Patel *Radhe Patel*

DATE: 12-Apr-11

Specified		Sample #1			Sample #2			Sample #3			Sample #4			Sample #5		
Output Power	Input Voltage	Output Power	Input Voltage	Efficiency												
(% of rated)	(Vdc)	(kW)	(Vdc)	(%)												
5%	Vmin 55Vdc	0.040007	55.034	84.352	0.039571	55.035	84.272	0.0397	55.035	84.263	0.039708	55.036	84.304	0.039462	55.036	84.305
10%		0.101158	55.044	91.113	0.101067	55.045	91.12	0.100879	55.044	91.107	0.100829	55.046	91.085	0.100549	55.046	91.099
20%		0.149102	55.075	92.425	0.149009	55.078	92.43	0.149063	55.079	92.411	0.148872	55.08	92.413	0.14861	55.08	92.415
30%		0.246384	55.051	93.426	0.245909	55.051	93.427	0.246679	55.049	93.428	0.246289	55.049	93.431	0.245397	55.05	93.429
50%		0.350617	55.089	93.678	0.351219	55.085	93.677	0.351148	55.085	93.673	0.350653	55.091	93.676	0.350076	55.096	93.677
75%		0.461186	55.085	93.517	0.461285	55.082	93.517	0.461549	55.078	93.517	0.461006	55.083	93.518	0.461082	55.082	93.518
100%																
5%	Vnom 60Vdc	0.040009	60.387	83.806	0.039976	60.385	83.881	0.039885	60.385	83.839	0.039652	60.386	83.818	0.039968	60.385	83.889
10%		0.101161	60.092	90.802	0.101271	60.093	90.797	0.101144	60.093	90.799	0.100707	60.093	90.795	0.101316	60.092	90.797
20%		0.149293	60.031	92.076	0.149205	60.031	92.075	0.149419	60.03	92.082	0.149011	60.03	92.072	0.149484	60.029	92.073
30%		0.24567	60.109	93.14	0.24577	60.11	93.143	0.246382	60.108	93.141	0.2461	60.107	93.148	0.246186	60.108	93.148
50%		0.351967	60.012	93.476	0.351293	60.017	93.477	0.35179	60.014	93.474	0.351952	60.013	93.477	0.352449	60.013	93.478
75%		0.461737	60.038	93.424	0.461614	60.039	93.42	0.461113	60.045	93.42	0.461659	60.04	93.416	0.461063	60.045	93.415
100%																
5%	Vmax 65Vdc	0.040282	65.006	83.62	0.039844	65.005	83.534	0.040145	65.005	83.61	0.040387	65.005	83.636	0.040445	65.004	83.634
10%		0.101844	65.026	90.641	0.101653	64.928	90.664	0.101781	64.928	90.665	0.101439	64.927	90.651	0.101506	64.927	90.641
20%		0.149773	65.061	91.75	0.149754	65.06	91.752	0.149813	65.059	91.741	0.150038	65.057	91.746	0.149617	65.056	91.743
30%		0.246242	65.058	92.889	0.24666	65.058	92.89	0.246649	65.057	92.886	0.246232	65.057	92.887	0.246245	65.057	92.884
50%		0.352135	65.076	93.304	0.35261	65.073	93.301	0.35264	65.073	93.301	0.352355	65.072	93.304	0.352696	65.07	93.307
75%		0.462481	64.443	93.302	0.462939	64.975	93.29	0.463161	64.974	93.288	0.463019	64.976	93.289	0.462807	64.979	93.292
100%																
Specified		Sample #6			Sample #7			Sample #8			Sample #9			Sample #10		
Output Power	Input Voltage	Output Power	Input Voltage	Efficiency												
(% of rated)	(Vdc)	(kW)	(Vdc)	(%)												
5%	Vmin 55Vdc															
10%																
20%																
30%																
50%																
75%																
100%																
5%	Vnom 60Vdc															
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5%	Vmax 65Vdc															
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