Manufacturer: Power-One, Inc.

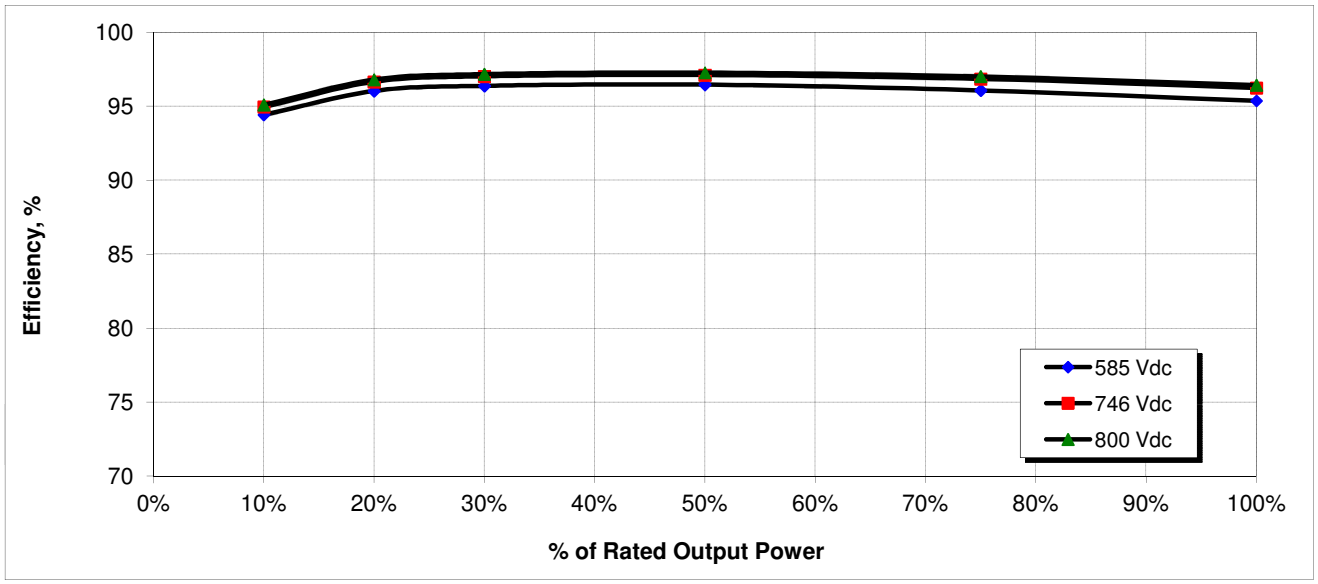
Model #: ULTRA-1100-TL-OUTD-1-US-690-x-y-z

Rated Maximum Continuous Output Power: 1170.00 kW Night Tare Loss: 329 W

Vmin: 585 Vdc Vnom: 746 Vdc Vmax: 800 Vdc

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		117.00	234.00	351.00	585.00	877.50	1170.00	Wtd
Vmin	585	94.42	96.03	96.38	96.46	96.07	95.36	96.09
Vnom	746	94.96	96.64	97.01	97.10	96.84	96.23	96.80
Vmax	800	95.10	96.79	97.16	97.26	97.01	96.42	96.96

CEC Efficiency of Inverter and MV TP1 Transformer = 96.5%



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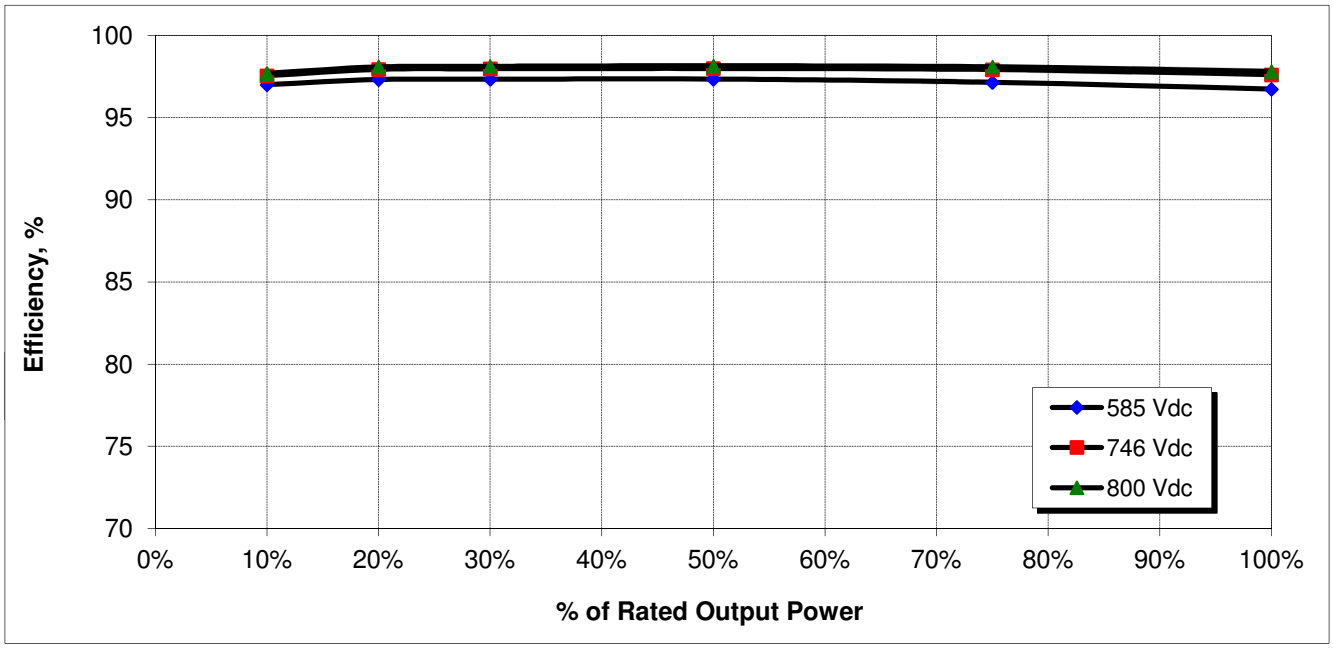
		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		117.00	234.00	351.00	585.00	877.50	1170.00	Wtd
Vmin	585	96.99	97.31	97.32	97.34	97.14	96.73	97.18
Vnom	746	97.54	97.92	97.96	97.98	97.92	97.61	97.91
Vmax	800	97.68	98.08	98.11	98.14	98.09	97.80	98.07

Inverter Efficiency only = 97.5%



1170kVA TP1 Transformer Efficiency

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		117.00	234.00	351.00	585.00	877.50	1170.00	Wtd
Vmin	585	97.35	98.69	99.03	99.10	98.90	98.59	98.87
Vnom	746	97.35	98.69	99.03	99.10	98.90	98.59	98.87
Vmax	800	97.35	98.69	99.03	99.10	98.90	98.59	98.87

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	115491.6	585.8	97.0	115481.4	585.8	97.0	115492.1	585.3	97.0	115479.4	585.6	97.0	115483.2	585.7	97.0
20%	Vmin	256506.5	585.4	97.3	256506.4	585.3	97.3	256529.5	585.9	97.3	256502.4	585.2	97.3	256477.9	585.5	97.3
30%	Vmin	322621.5	585.5	97.3	322599.9	585.4	97.3	322594.9	585.6	97.3	322606.0	585.6	97.3	322656.4	585.5	97.3
50%	Vmin	643204.9	585.3	97.3	643222.8	585.4	97.3	643221.4	585.4	97.3	643131.3	585.3	97.3	643142.0	585.3	97.3
75%	Vmin	819946.4	585.3	97.1	819973.4	585.2	97.1	819971.9	585.4	97.1	820058.7	585.1	97.1	820019.6	585.2	97.1
100%	Vmin	1112009.7	585.2	96.7	1112012.4	585.2	96.7	1112007.2	585.0	96.7	1111966.9	585.2	96.7	1111893.5	585.5	96.7
10%	Vnom	116163.5	744.7	97.6	116186.0	744.8	97.5	116197.7	744.9	97.5	116182.8	744.6	97.5	116188.0	744.7	97.5
20%	Vnom	256610.3	745.2	97.9	256578.1	745.1	97.9	256585.5	744.7	97.9	256698.8	744.8	97.9	256733.1	745.2	97.9
30%	Vnom	321920.4	745.3	98.0	321893.2	745.3	98.0	321888.5	745.5	98.0	321916.0	745.8	98.0	321910.7	745.7	98.0
50%	Vnom	642698.3	745.4	98.0	642619.0	745.4	98.0	642619.7	745.5	98.0	642688.7	745.1	98.0	642775.9	745.5	98.0
75%	Vnom	820050.1	745.1	97.9	820105.1	745.0	97.9	820113.5	744.8	97.9	820157.4	745.8	97.9	820142.6	744.9	97.9
100%	Vnom	1111891.2	745.3	97.6	1111955.7	744.8	97.6	1111939.4	745.1	97.6	1111948.0	745.4	97.6	1112022.2	745.5	97.6
10%	Vmax	116255.7	800.3	97.7	116255.0	800.8	97.7	116332.8	801.0	97.7	116320.1	802.2	97.7	116357.2	801.9	97.7
20%	Vmax	256844.8	801.0	98.1	256841.6	801.6	98.1	256935.2	800.8	98.1	256931.4	801.0	98.1	256933.5	801.0	98.1
30%	Vmax	322142.3	799.2	98.1	322178.0	800.9	98.1	322187.4	800.4	98.1	322166.3	800.2	98.1	322174.7	800.3	98.1
50%	Vmax	643155.4	801.1	98.1	643158.3	801.0	98.1	643142.3	800.9	98.1	643163.2	801.1	98.1	643156.5	801.1	98.1
75%	Vmax	819847.5	800.9	98.1	819869.9	800.4	98.1	819851.9	801.4	98.1	819858.6	801.2	98.1	819906.5	799.8	98.1
100%	Vmax	1111991.3	800.2	97.8	1112053.3	800.2	97.8	1112033.5	800.7	97.8	1112059.2	800.3	97.8	1112069.9	800.5	97.8

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	115468.6	585.3	97.0	115493.5	585.6	97.0									
20%	Vmin	256498.7	585.4	97.3	256477.6	585.5	97.3									
30%	Vmin	322635.2	585.4	97.3	322613.9	585.5	97.3									
50%	Vmin	643191.2	585.6	97.3	643209.5	585.4	97.3									
75%	Vmin	820031.9	585.2	97.1	820086.4	585.4	97.1									
100%	Vmin	1111900.1	585.2	96.7	1111933.7	585.2	96.7									
10%	Vnom	116207.5	744.9	97.5	116183.5	745.0	97.5									
20%	Vnom	256703.6	745.5	97.9	256674.2	746.0	97.9									
30%	Vnom	321915.7	745.4	98.0	321909.3	745.3	98.0									
50%	Vnom	642789.7	745.5	98.0	642733.2	745.3	98.0									
75%	Vnom	820192.7	745.2	97.9	820137.6	745.3	97.9									
100%	Vnom	1111989.5	745.2	97.6	1112032.2	745.6	97.6									
10%	Vmax	116334.0	800.6	97.7	116334.6	799.7	97.7									
20%	Vmax	256898.0	801.2	98.1	256907.0	801.6	98.1									
30%	Vmax	322186.9	800.8	98.1	322162.8	800.4	98.1									
50%	Vmax	643245.4	801.1	98.1	643194.8	800.9	98.1									
75%	Vmax	819926.3	800.1	98.1	819929.6	800.2	98.1									
100%	Vmax	1111985.2	800.2	97.8	1112046.9	800.0	97.8									