Manufacturer: Power-One, Inc.

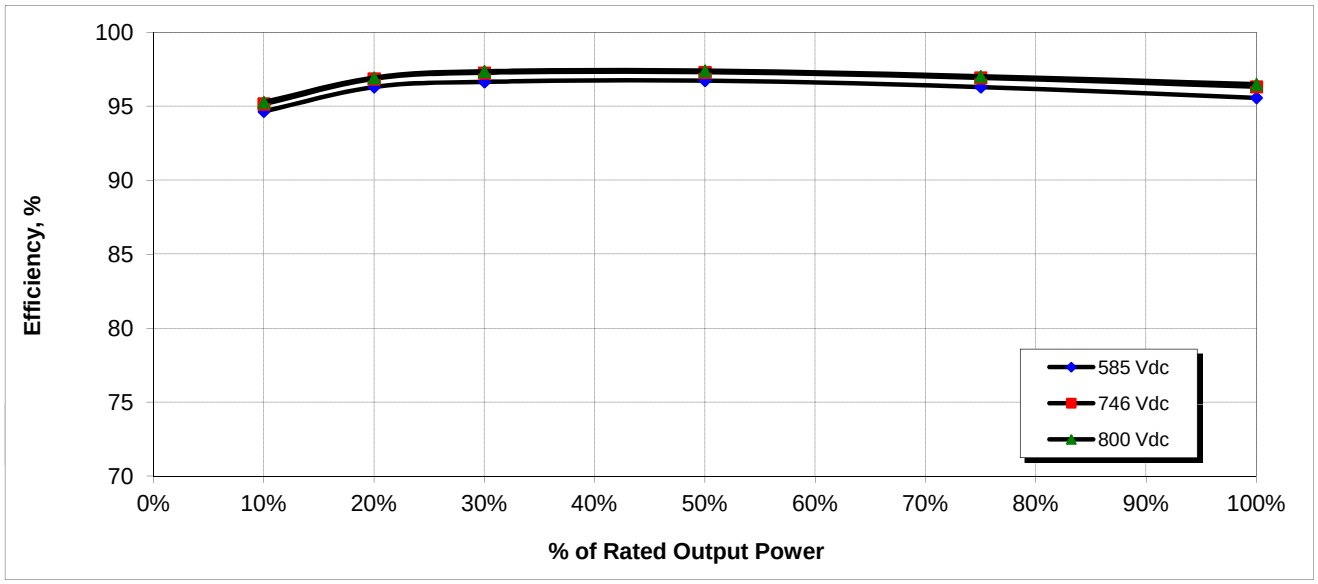
Model #: ULTRA-1100-TL-OUTD-3-US-690

Rated Maximum Continuous Output Power: 1170.00 kW Night Tare Loss: 382 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	94.65	96.30	96.65	96.74	96.30	95.57	96.33
Vnom	746	95.16	96.85	97.25	97.29	96.92	96.31	96.93
Vmax	800	95.27	96.93	97.36	97.40	97.02	96.48	97.04

CEC Efficiency of Inverter and MV TP1 Transformer = 97.0%



Manufacturer: Power-One, Inc.

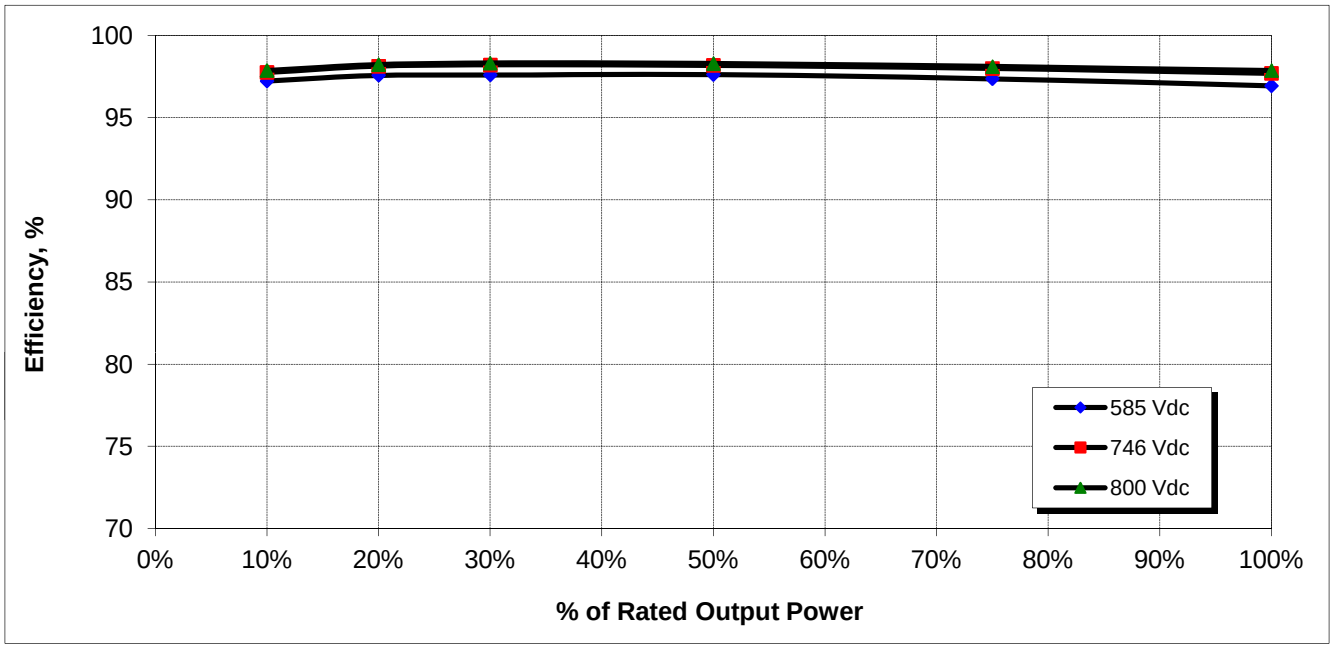
Model #: ULTRA-1100-TL-OUTD-3-US-690

Rated Maximum Continuous Output Power: 1170.0 kW Night Tare Loss: 382 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	97.23	97.58	97.59	97.62	97.37	96.93	97.43
Vnom	746	97.75	98.13	98.21	98.17	97.99	97.69	98.04
Vmax	800	97.87	98.22	98.31	98.29	98.10	97.86	98.15

Inverter Efficiency only = 98.0%



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	115726.7	585.5	97.2	115740.2	585.3	97.3	115708.3	585.4	97.2	115707.1	585.5	97.2	115691.8	585.7	97.2
20%	Vmin	257173.0	585.5	97.6	257124.0	585.8	97.6	257134.2	585.6	97.6	257171.9	585.3	97.6	257198.8	585.7	97.6
30%	Vmin	327698.0	585.4	97.6	327603.2	585.5	97.6	327589.4	585.5	97.6	327753.2	585.0	97.6	327740.7	585.3	97.6
50%	Vmin	534260.7	585.4	97.6	534064.1	585.3	97.6	534215.8	585.3	97.6	534212.7	585.4	97.6	534179.8	585.4	97.6
75%	Vmin	825383.7	585.3	97.4	825129.9	585.5	97.4	825370.6	585.6	97.4	825273.8	585.6	97.4	825240.0	585.5	97.4
100%	Vmin	1116046.9	585.1	96.9	1116191.9	585.3	96.9	1116168.1	585.2	96.9	1116193.4	585.3	96.9	1116092.0	585.4	96.9
10%	Vnom	116568.3	745.5	97.7	116595.7	745.5	97.8	116553.2	745.8	97.7	116568.1	745.2	97.8	116593.2	745.2	97.8
20%	Vnom	250864.7	745.3	98.2	250838.3	745.2	98.1	250806.0	745.2	98.1	250789.0	745.4	98.1	250866.0	745.3	98.1
30%	Vnom	328747.3	745.7	98.2	328877.0	745.4	98.2	328800.5	745.6	98.2	328906.7	745.3	98.2	328894.3	745.7	98.2
50%	Vnom	533675.6	745.8	98.2	533722.3	745.7	98.2	533824.1	745.2	98.2	533940.1	745.6	98.2	533883.3	745.6	98.2
75%	Vnom	828358.1	745.5	98.0	828427.9	745.4	98.0	828389.1	745.3	98.0	828272.1	745.6	98.0	828418.4	745.7	98.0
100%	Vnom	1119597.6	745.8	97.7	1119491.9	745.7	97.7	1119485.3	745.1	97.7	1119647.8	745.5	97.7	1119480.8	745.3	97.7
10%	Vmax	116696.5	799.9	97.9	116732.7	799.6	97.9	116706.2	799.7	97.9	116734.9	800.0	97.9	116711.9	800.8	97.9
20%	Vmax	251336.9	800.7	98.2	251394.1	801.9	98.2	251381.3	801.8	98.2	251393.6	801.9	98.2	251444.0	802.3	98.2
30%	Vmax	329209.4	801.3	98.3	329166.8	801.0	98.3	329198.4	800.7	98.3	329218.8	801.2	98.3	329117.8	801.4	98.3
50%	Vmax	534095.0	800.3	98.3	534005.0	799.9	98.3	533898.9	799.1	98.3	533979.7	801.2	98.3	534133.6	801.6	98.3
75%	Vmax	828602.8	801.3	98.1	828753.7	801.4	98.1	828801.3	801.5	98.1	828705.8	801.1	98.1	828592.6	800.9	98.1
100%	Vmax	1120917.4	800.4	97.9	1120884.8	801.2	97.9	1120899.4	801.2	97.9	1120877.8	801.0	97.9	1120887.8	800.7	97.9

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	115678.5	585.6	97.2	115724.6	585.3	97.2									
20%	Vmin	257187.4	585.2	97.6	257172.9	585.3	97.6									
30%	Vmin	327750.0	585.6	97.6	327676.6	585.6	97.6									
50%	Vmin	534163.8	585.6	97.6	534235.5	585.4	97.6									
75%	Vmin	825421.4	585.5	97.4	825354.5	585.5	97.4									
100%	Vmin	1116316.7	585.6	97.0	1116069.2	585.7	96.9									
10%	Vnom	116612.7	745.1	97.8	116587.6	745.7	97.7									
20%	Vnom	250840.7	745.2	98.1	250870.0	745.7	98.1									
30%	Vnom	328937.0	745.8	98.2	328947.4	745.4	98.2									
50%	Vnom	533860.4	745.5	98.2	533779.1	745.3	98.2									
75%	Vnom	828350.3	745.1	98.0	828372.6	745.4	98.0									
100%	Vnom	1119660.9	745.6	97.7	1119484.6	745.4	97.7									
10%	Vmax	116695.9	800.1	97.9	116720.6	800.1	97.9									
20%	Vmax	251399.7	801.5	98.2	251421.7	801.5	98.2									
30%	Vmax	329255.1	801.3	98.3	329189.4	801.3	98.3									
50%	Vmax	533977.4	800.6	98.3	533980.1	801.2	98.3									
75%	Vmax	828779.4	801.5	98.1	828650.2	800.8	98.1									
100%	Vmax	1120812.9	800.7	97.9	1120791.2	801.2	97.9									