Manufacturer: Power-One, Inc.

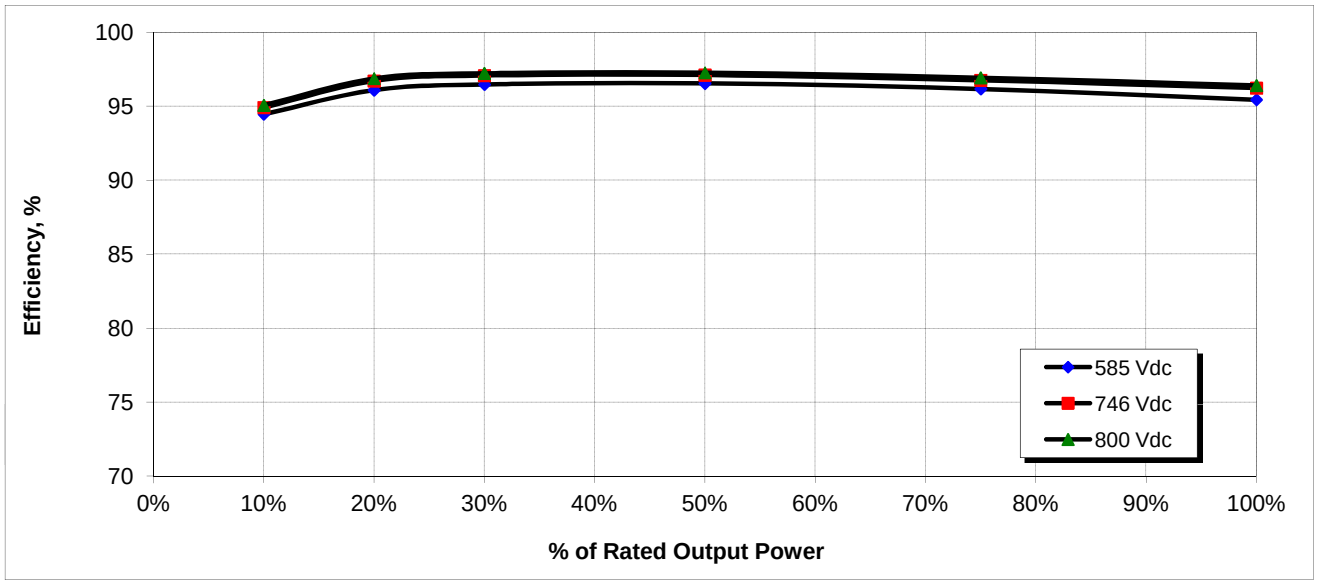
Model #: ULTRA-1100-TL-OUTD-2-US-690

Rated Maximum Continuous Output Power: 1000.00 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)		100.00	200.00	300.00	500.00	750.00	1000.00	Wtd
Vmin	585	94.47	96.09	96.47	96.55	96.17	95.44	96.18
Vnom	746	94.92	96.71	97.07	97.11	96.75	96.23	96.76
Vmax	800	95.07	96.88	97.23	97.27	96.93	96.41	96.93

CEC Efficiency of Inverter and MV TP1 Transformer = 96.5%



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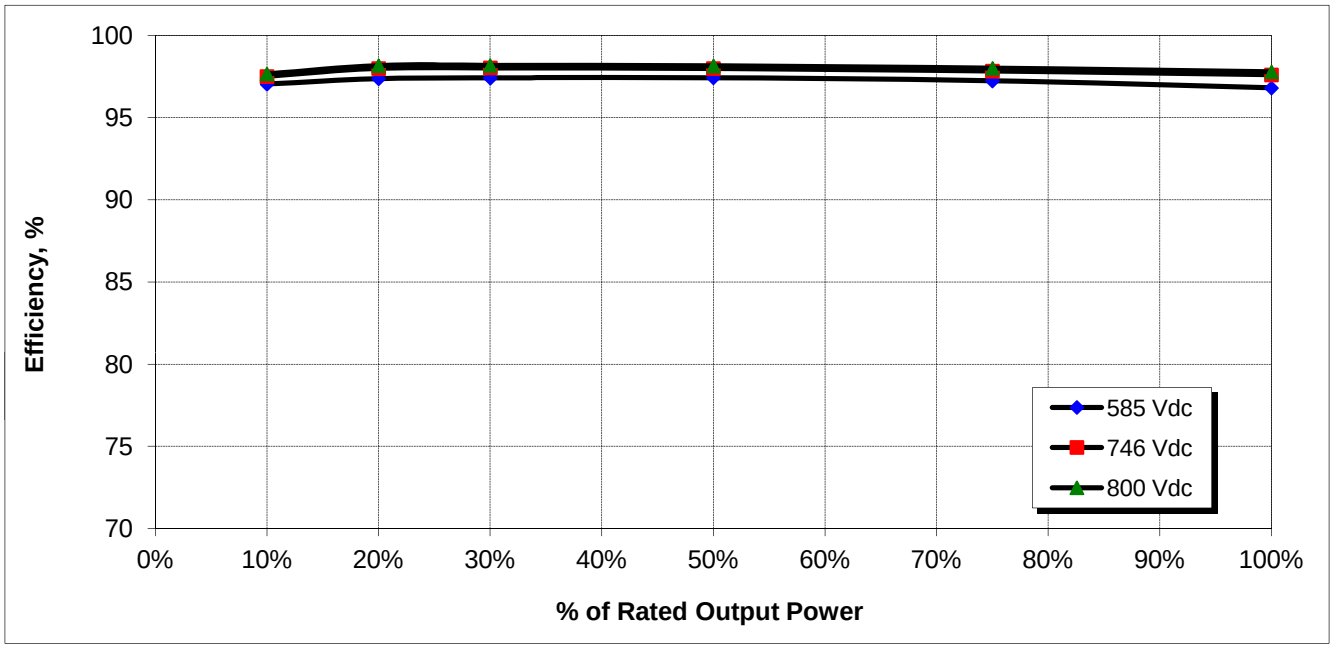
		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		100.00	200.00	300.00	500.00	750.00	1000.00	Wtd
Vmin	585	97.04	97.36	97.41	97.42	97.24	96.80	97.27
Vnom	746	97.50	97.99	98.02	97.99	97.83	97.60	97.87
Vmax	800	97.65	98.16	98.18	98.15	98.01	97.79	98.04

Inverter Efficiency only = 97.5%



1000kVA TP1 Transformer Efficiency

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		100.00	200.00	300.00	500.00	750.00	1000.00	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	99935.3	585.5	97.1	99928.6	585.3	97.0	99894.6	585.2	97.0	99888.9	585.2	97.0	99906.8	585.3	97.1
20%	Vmin	216930.9	585.2	97.4	216937.2	585.4	97.4	216910.0	585.2	97.4	216894.7	585.3	97.4	216839.0	585.3	97.3
30%	Vmin	279614.1	585.4	97.4	279521.5	585.7	97.4	279624.7	585.7	97.4	279518.7	585.6	97.4	279636.7	585.7	97.4
50%	Vmin	458473.2	585.5	97.4	458282.6	585.6	97.4	458390.0	585.3	97.4	458334.5	585.2	97.4	458420.3	585.3	97.4
75%	Vmin	705315.6	585.6	97.2	705350.1	585.8	97.2	705349.0	585.6	97.3	705336.7	585.6	97.2	705270.3	585.4	97.2
100%	Vmin	951608.7	585.2	96.8	951636.9	585.4	96.8	951744.1	585.2	96.8	951653.6	585.6	96.8	951628.1	585.5	96.8
10%	Vnom	96045.6	745.4	97.5	95984.7	745.7	97.5	96073.8	745.6	97.6	96044.2	745.8	97.5	96050.6	745.8	97.5
20%	Vnom	216357.1	745.1	98.0	216380.3	745.2	98.0	216352.8	745.3	98.0	216398.9	745.4	98.0	216321.5	745.4	98.0
30%	Vnom	276737.7	745.7	98.0	276732.2	745.5	98.0	276489.4	745.4	98.0	276616.6	745.7	98.0	276688.9	745.7	98.0
50%	Vnom	456080.3	745.3	98.0	456069.7	745.2	98.0	456086.8	745.2	98.0	456060.9	745.2	98.0	455982.5	745.5	98.0
75%	Vnom	708296.4	745.4	97.8	708231.6	745.4	97.8	708121.6	745.4	97.8	708197.9	745.3	97.8	708196.7	745.5	97.8
100%	Vnom	959879.0	745.6	97.6	959965.9	745.4	97.6	959889.3	745.3	97.6	960036.0	745.2	97.6	959935.4	745.5	97.6
10%	Vmax	90212.3	801.0	97.6	90188.0	800.9	97.6	90280.0	800.7	97.7	90305.5	800.8	97.7	90226.2	800.9	97.6
20%	Vmax	216927.0	800.4	98.2	216930.0	800.2	98.2	216872.0	800.9	98.2	216858.9	800.8	98.2	216884.8	800.9	98.2
30%	Vmax	276835.3	802.1	98.2	276893.5	801.8	98.2	276824.6	801.2	98.2	276877.3	801.7	98.2	276929.0	802.0	98.2
50%	Vmax	456319.1	800.8	98.2	456373.3	801.6	98.2	456361.0	801.6	98.2	456309.7	801.2	98.1	456311.9	800.3	98.1
75%	Vmax	708721.7	800.7	98.0	708672.3	800.4	98.0	708633.1	800.7	98.0	708517.1	801.2	98.0	708554.3	801.3	98.0
100%	Vmax	960345.4	800.2	97.8	960374.7	801.3	97.8	960414.0	802.7	97.8	960387.6	801.9	97.8	960417.7	801.5	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	99907.3	585.5	97.1	99892.7	585.6	97.0									
20%	Vmin	216889.3	585.3	97.4	216822.3	585.5	97.4									
30%	Vmin	279553.9	585.8	97.4	279593.5	585.6	97.4									
50%	Vmin	458335.1	585.2	97.4	458410.6	585.6	97.4									
75%	Vmin	705308.8	585.4	97.2	705335.9	585.3	97.2									
100%	Vmin	951651.4	585.3	96.8	951629.9	585.2	96.8									
10%	Vnom	96028.8	745.7	97.4	95996.1	745.8	97.5									
20%	Vnom	216302.7	745.3	98.0	216301.3	745.1	98.0									
30%	Vnom	276527.3	745.3	98.0	276570.9	745.3	98.0									
50%	Vnom	456055.1	745.5	98.0	456056.0	745.3	98.0									
75%	Vnom	708289.9	745.7	97.8	708212.4	745.7	97.8									
100%	Vnom	959985.9	745.2	97.6	960044.0	745.3	97.6									
10%	Vmax	90311.0	801.2	97.7	90214.3	800.7	97.6									
20%	Vmax	216991.1	800.8	98.2	216846.3	800.8	98.1									
30%	Vmax	276946.5	801.4	98.2	276808.1	801.5	98.2									
50%	Vmax	456365.8	800.9	98.2	456461.0	801.3	98.2									
75%	Vmax	708698.0	801.6	98.0	708737.7	801.2	98.0									
100%	Vmax	960290.6	802.3	97.8	960380.8	801.2	97.8									