Manufacturer: Toshiba Mitsubishi-Electrical Industrial Systems Corporation (TMEIC)

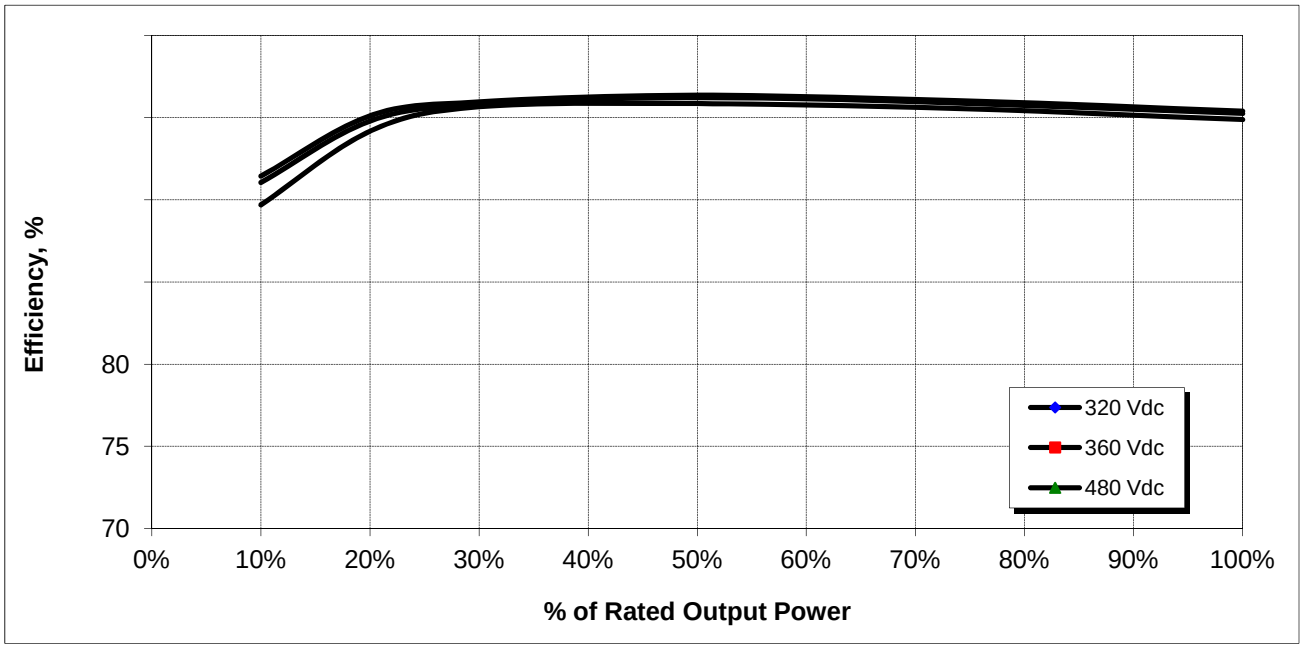
Model #: PVL-L0500U

Rated Maximum Continuous Output Power: 500.00 kW Night Tare Loss: 60 W

Vmin: 320 Vdc Vnom: 360 Vdc Vmax: 480 Vdc

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		50.00	100.00	150.00	250.00	375.00	500.00	Wtd
Vmin	320	91.4	95.1	96.0	96.4	96.0	95.4	95.8
Vnom	360	91.0	94.8	95.8	96.2	95.9	95.2	95.7
Vmax	480	89.7	94.2	95.7	95.8	95.5	94.9	95.3

CEC Efficiency of Inverter and MV TP1 Transformer = 95.5%



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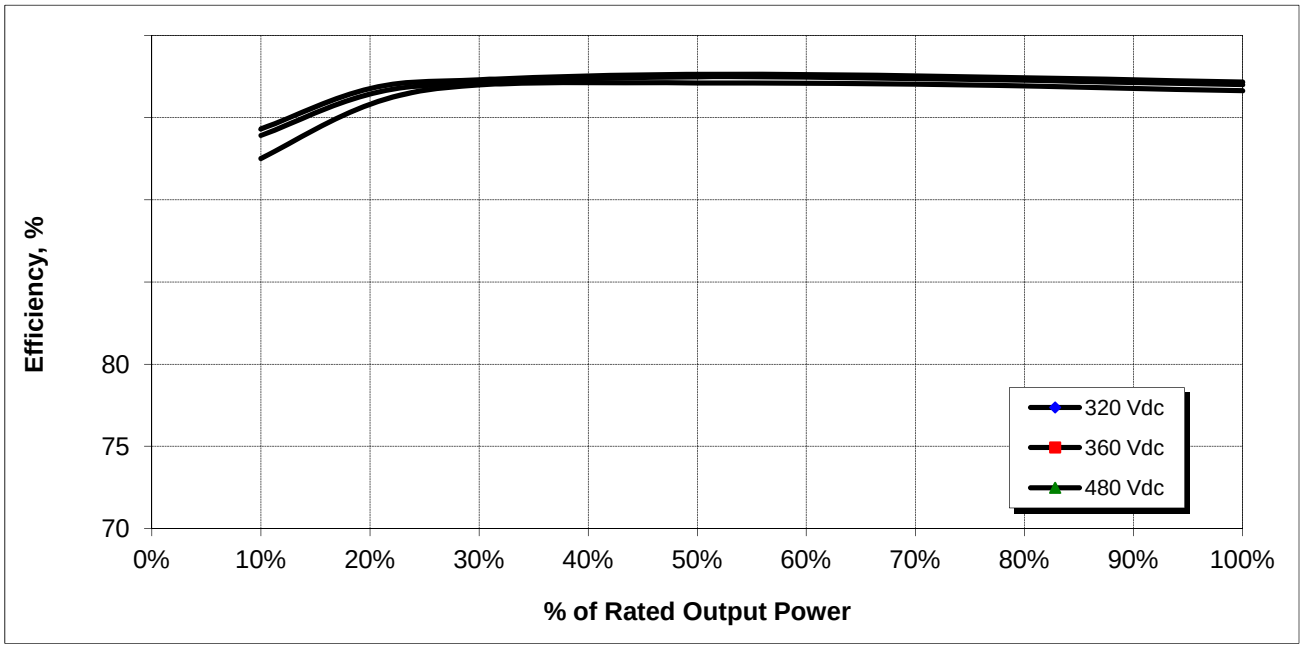
		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		50.00	100.00	150.00	250.00	375.00	500.00	Wtd
Vmin	320	94.3	96.8	97.3	97.6	97.5	97.1	97.3
Vnom	360	93.9	96.4	97.1	97.5	97.3	97.0	97.1
Vmax	480	92.5	95.8	97.0	97.1	97.0	96.6	96.8

Inverter Efficiency only = 97.0%



500kVA TP1 Transformer Efficiency

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		50.00	100.00	150.00	250.00	375.00	500.00	Wtd
Vmin	320	96.95	98.29	98.63	98.70	98.50	98.19	98.47
Vnom	360	96.95	98.29	98.63	98.70	98.50	98.19	98.47
Vmax	480	96.95	98.29	98.63	98.70	98.50	98.19	98.47

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	49.900	320.02	94.30	49.896	320.02	94.35	49.896	320.02	94.30	49.907	320.02	94.26	49.908	320.02	94.26
20%	Vmin	109.871	320.02	96.77	109.890	320.02	96.76	109.872	320.03	96.76	109.871	320.02	96.76	109.865	320.02	96.76
30%	Vmin	162.384	320.06	97.30	162.384	320.06	97.30	162.385	320.06	97.29	162.379	320.06	97.29	162.380	320.06	97.30
50%	Vmin	250.075	320.06	97.63	250.079	320.06	97.63	250.079	320.06	97.62	250.077	320.06	97.63	250.077	320.06	97.62
75%	Vmin	350.184	320.17	97.47	350.183	320.17	97.47	350.177	320.17	97.48	350.180	320.17	97.48	350.182	320.17	97.47
100%	Vmin	475.128	321.93	97.16	475.146	321.93	97.15	475.107	321.94	97.15	475.107	321.93	97.15	475.106	321.93	97.14
10%	Vnom	49.918	360.01	93.90	49.911	360.01	93.88	49.918	360.01	93.92	49.918	360.00	93.91	49.910	360.01	93.90
20%	Vnom	109.885	360.02	96.42	109.890	360.03	96.46	109.882	360.02	96.45	109.857	360.03	96.44	109.852	360.02	96.43
30%	Vnom	162.413	360.02	97.14	162.414	360.02	97.13	162.418	360.02	97.14	162.424	360.02	97.12	162.420	360.02	97.13
50%	Vnom	250.043	360.08	97.49	250.029	360.08	97.48	250.097	360.07	97.49	250.106	360.07	97.48	250.074	360.08	97.48
75%	Vnom	350.247	360.15	97.33	350.240	360.16	97.32	350.237	360.15	97.32	350.237	360.15	97.32	350.226	360.15	97.32
100%	Vnom	475.336	360.33	97.00	475.349	360.33	97.00	475.360	360.33	97.00	475.371	360.33	97.00	475.374	360.33	97.00
10%	Vmax	49.914	480.04	92.43	49.896	480.04	92.48	49.895	480.04	92.57	49.903	480.03	92.54	49.866	480.04	92.55
20%	Vmax	109.885	480.00	95.82	109.890	480.00	95.81	109.882	480.00	95.81	109.857	480.00	95.79	109.852	480.00	95.82
30%	Vmax	162.477	479.96	96.99	162.451	479.97	96.99	162.381	479.99	96.99	162.325	480.01	97.00	162.268	480.02	96.98
50%	Vmax	250.062	480.06	97.10	250.070	480.06	97.10	250.090	480.05	97.11	250.108	480.05	97.11	250.114	480.05	97.11
75%	Vmax	350.279	480.16	96.98	350.285	480.16	96.98	350.284	480.16	96.99	350.290	480.17	96.99	350.298	480.17	96.99
100%	Vmax	475.221	480.48	96.62	475.260	480.47	96.64	475.178	480.49	96.62	475.234	480.49	96.62	475.153	480.49	96.63

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	49.901	320.03	94.33	49.904	320.03	94.33									
20%	Vmin	109.873	320.02	96.75	109.880	320.02	96.75									
30%	Vmin	162.377	320.06	97.29	162.378	320.06	97.28									
50%	Vmin	250.080	320.06	97.63	250.085	320.06	97.63									
75%	Vmin	350.174	320.17	97.47	350.176	320.18	97.47									
100%	Vmin	475.132	321.93	97.14	475.147	321.93	97.15									
10%	Vnom	49.920	360.00	93.96	49.916	360.00	93.92									
20%	Vnom	109.859	360.02	96.43	109.859	360.02	96.43									
30%	Vnom	162.414	360.02	97.12	162.418	360.03	97.12									
50%	Vnom	250.049	360.08	97.49	250.042	360.07	97.48									
75%	Vnom	350.225	360.15	97.32	350.234	360.15	97.32									
100%	Vnom	475.361	360.34	97.00	475.412	360.33	96.99									
10%	Vmax	49.860	480.04	92.56	49.877	480.03	92.46									
20%	Vmax	109.859	480.00	95.79	109.859	480.00	95.78									
30%	Vmax	162.269	480.02	96.96	162.328	480.00	96.94									
50%	Vmax	250.115	480.05	97.12	250.114	480.05	97.11									
75%	Vmax	350.309	480.16	96.97	350.303	480.16	96.97									
100%	Vmax	475.196	480.49	96.62	475.202	480.49	96.63									