Manufacturer: Power Electronics

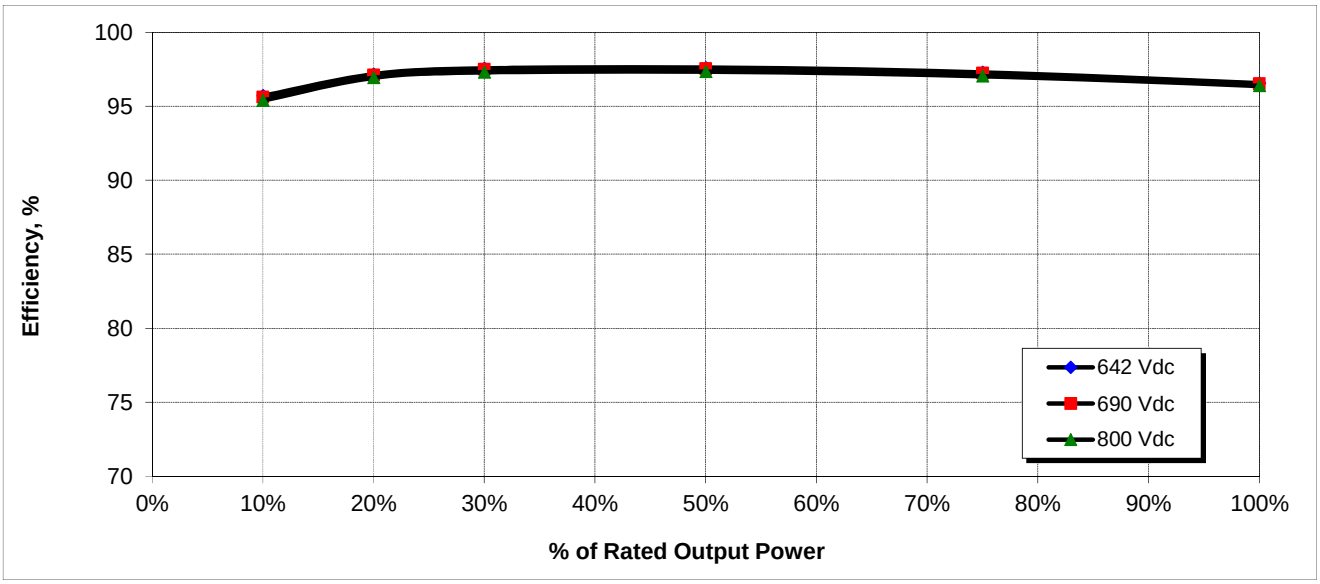
Model #: FS1790CU (440Vac)

Rated Maximum Continuous Output Power: 1990.0 kW Night Tare Loss: -371 W

Vmin: 642 Vdc Vnom: 690 Vdc Vmax: 800 Vdc

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		199.00	398.00	597.00	995.00	1492.50	1990.00	Wtd
Vmin	642	95.7	97.2	97.6	97.6	97.3	96.6	97.3
Vnom	690	95.6	97.1	97.5	97.5	97.2	96.5	97.2
Vmax	800	95.4	96.9	97.3	97.3	97.0	96.4	97.0

CEC Efficiency of Inverter and MV TP1 Transformer = 97.0%



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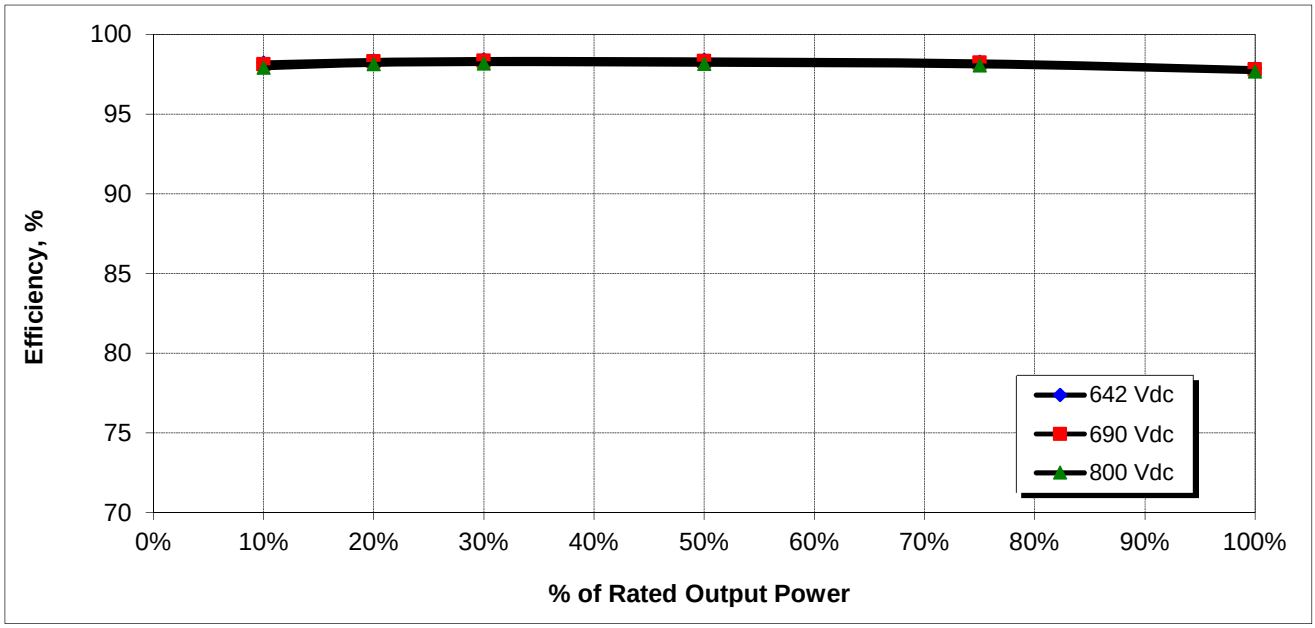
		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		199.00	398.00	597.00	995.00	1492.50	1990.00	Wtd
Vmin	642	98.2	98.4	98.4	98.4	98.3	97.9	98.3
Vnom	690	98.1	98.3	98.3	98.3	98.2	97.8	98.2
Vmax	800	97.9	98.1	98.2	98.1	98.0	97.7	98.0

Inverter Efficiency only = 98.0%



1990KVA TP1 MV Transformer Efficiency

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		199.00	398.00	597.00	995.00	1492.50	1990.00	Wtd
Vmin	642	97.45	98.79	99.13	99.20	99.00	98.69	98.97
Vnom	690	97.45	98.79	99.13	99.20	99.00	98.69	98.97
Vmax	800	97.45	98.79	99.13	99.20	99.00	98.69	98.97

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	186809.0	642.0	98.2	185196.7	642.0	98.2	186550.3	641.9	98.2	187146.7	641.9	98.2	186607.7	641.9	98.2
20%	Vmin	400072.3	643.0	98.4	397951.7	642.9	98.4	401496.3	642.9	98.4	399241.7	643.0	98.4	399354.3	642.9	98.4
30%	Vmin	603921.0	642.8	98.4	607660.7	642.7	98.4	604328.0	642.8	98.4	604516.0	642.8	98.4	601529.0	642.8	98.4
50%	Vmin	1021916.7	642.5	98.4	1021983.3	642.6	98.4	1016140.0	642.6	98.4	1023010.0	642.6	98.4	1020956.7	642.7	98.4
75%	Vmin	1492910.0	642.4	98.3	1493346.7	642.4	98.3	1493113.3	642.4	98.3	1493176.7	642.4	98.3	1493866.7	642.4	98.3
100%	Vmin	1997693.3	642.0	97.9	1995483.3	642.1	97.9	1999153.3	642.1	97.9	2005836.7	641.9	97.8	1995290.0	642.2	97.9
10%	Vnom	186442.7	690.5	98.1	187568.7	690.6	98.1	185668.7	690.5	98.1	186249.7	690.5	98.1	186046.3	690.5	98.1
20%	Vnom	400660.0	690.3	98.3	401830.0	690.3	98.3	401394.3	690.4	98.3	399659.0	690.3	98.3	400727.3	690.3	98.3
30%	Vnom	604562.0	690.3	98.3	608219.7	690.3	98.3	603938.0	690.3	98.3	605526.7	690.4	98.3	604682.7	690.3	98.3
50%	Vnom	1020396.7	690.2	98.3	1018393.3	690.1	98.3	1019000.0	690.2	98.3	1023673.3	690.1	98.3	1022613.3	690.2	98.3
75%	Vnom	1495400.0	690.8	98.2	1488820.0	690.8	98.2	1492340.0	690.9	98.2	1488810.0	690.9	98.2	1497943.3	690.9	98.2
100%	Vnom	1996950.0	690.5	97.8	1995123.3	690.5	97.8	2002013.3	690.6	97.8	1992013.3	690.6	97.8	1996186.7	690.6	97.8
10%	Vmax	186429.7	800.8	97.9	186685.3	800.8	97.9	185835.3	800.8	97.9	186704.7	800.8	97.9	185880.3	800.8	97.9
20%	Vmax	398030.7	800.5	98.1	400751.0	800.6	98.1	400264.0	800.6	98.1	401934.3	800.6	98.1	399238.3	800.6	98.1
30%	Vmax	604603.3	800.6	98.2	604240.7	800.6	98.2	606412.3	800.6	98.2	601825.0	800.6	98.2	605723.3	800.6	98.2
50%	Vmax	1027373.3	800.5	98.1	1027183.3	800.6	98.1	1030856.7	800.5	98.1	1026736.7	800.5	98.1	1025436.7	800.5	98.1
75%	Vmax	1493210.0	800.3	98.0	1486686.7	800.3	98.0	1486630.0	800.3	98.0	1488763.3	800.3	98.0	1489346.7	800.3	98.0
100%	Vmax	1993160.0	801.1	97.7	1998130.0	801.1	97.7	1994346.7	801.0	97.7	1994276.7	801.0	97.7	1995660.0	800.9	97.7

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	186414.3	641.9	98.2	187676.7	642.0	98.2									
20%	Vmin	400574.7	642.9	98.4	400284.3	642.9	98.4									
30%	Vmin	605744.7	642.8	98.4	605424.3	642.8	98.4									
50%	Vmin	1023420.0	642.7	98.4	1019963.3	642.7	98.4									
75%	Vmin	1488963.3	642.5	98.3	1493010.0	642.5	98.3									
100%	Vmin	1997490.0	642.0	97.9	2000983.3	642.0	97.9									
10%	Vnom	186174.3	690.5	98.1	186038.7	690.5	98.1									
20%	Vnom	400141.7	690.4	98.3	400230.3	690.3	98.3									
30%	Vnom	606801.0	690.3	98.3	604283.0	690.3	98.3									
50%	Vnom	1022540.0	690.1	98.3	1021556.7	690.1	98.3									
75%	Vnom	1487823.3	690.9	98.2	1493620.0	690.9	98.2									
100%	Vnom	1997636.7	690.6	97.8	1995380.0	690.6	97.8									
10%	Vmax	186080.3	800.8	97.9	186466.3	800.7	97.9									
20%	Vmax	398819.3	800.6	98.1	400008.0	800.6	98.1									
30%	Vmax	603219.7	800.7	98.2	602812.7	800.6	98.2									
50%	Vmax	1028733.3	800.5	98.1	1026086.7	800.5	98.1									
75%	Vmax	1489556.7	800.3	98.0	1488983.3	800.3	98.0									
100%	Vmax	1998900.0	800.9	97.7	1996490.0	801.0	97.7									