Manufacturer: Fronius International GmbH

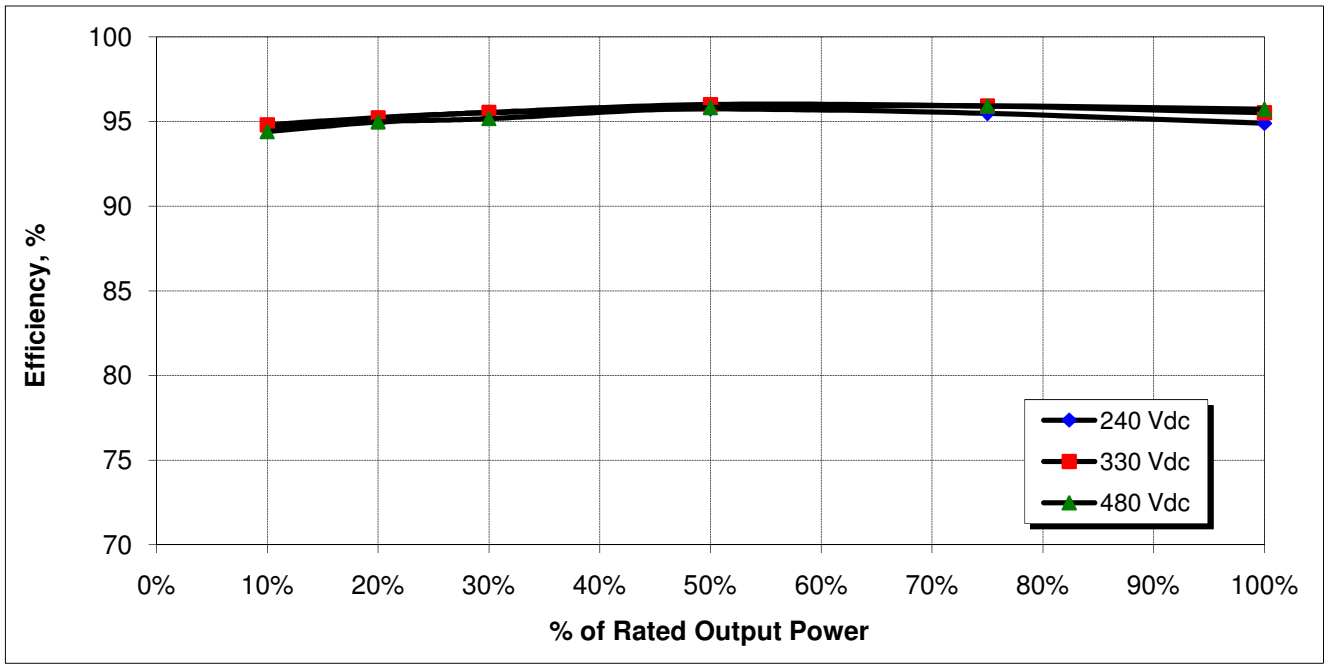
Model #: Fronius CL 48.0 WYE277

Rated Maximum Continuous Output Power: 48.00 kW Night Tare Loss: 4.56 W

Vmin: 240 Vdc Vnom: 330 Vdc Vmax: 480 Vdc

		Power Level (%; kW)						
		10%	20%	30%	50%	75%	100%	
Input Voltage (Vdc)		4.80	9.60	14.40	24.00	36.00	48.00	Wtd
Vmin	240	94.7	95.2	95.5	95.7	95.5	94.9	95.5
Vnom	330	94.8	95.2	95.5	96.0	95.9	95.5	95.8
Vmax	480	94.4	95.0	95.2	95.8	95.9	95.7	95.7

CEC Efficiency = 95.5%



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	4710.8	239.89	94.659	4715	239.89	94.644	4716	239.9	94.661	4718	239.89	94.705	4713	239.89	94.697
20%	Vmin	10282	240.14	95.224	10285	240.12	95.196	10283	240.13	95.188	10282	240.12	95.191	10283	240.12	95.190
30%	Vmin	15413	240.16	95.515	15410	240.15	95.524	15410	240.16	95.515	15410	240.15	95.520	15408	240.15	95.524
50%	Vmin	24117	240.15	95.746	24107	240.15	95.732	24113	240.15	95.745	24116	240.15	95.750	24112	240.14	95.738
75%	Vmin	33977	240.09	95.479	33979	240.08	95.483	33976	240.09	95.489	33977	240.09	95.491	33978	240.08	95.486
100%	Vmin	45846	240.02	94.900	45849	240.02	94.894	45829	240.01	94.861	45833	240.02	94.875	45844	240.02	94.894
10%	Vnom	4713	330.38	94.770	4714	330.36	94.774	4711	330.38	94.767	4714	330.35	94.747	4713	330.38	94.849
20%	Vnom	10285	330.4	95.215	10284	330.41	95.225	10285	330.4	95.220	10286	330.4	95.232	10288	330.4	95.229
30%	Vnom	15308	330.41	95.535	15307	330.4	95.535	15306	330.4	95.535	15307	330.39	95.544	15309	330.4	95.545
50%	Vnom	24043	330.38	95.998	24051	330.39	96.003	24051	330.38	96.010	24050	330.39	96.018	24046	330.39	95.998
75%	Vnom	34125	330.34	95.911	34128	330.33	95.922	34128	330.34	95.912	34128	330.34	95.913	34131	330.35	95.914
100%	Vnom	45885	329.88	95.525	45882	329.89	95.509	45881	329.88	95.505	45878	329.87	95.507	45880	329.87	95.503
10%	Vmax	4672.8	480.31	94.343	4673	480.31	94.423	4672	480.31	94.324	4674	480.31	94.423	4676	480.31	94.481
20%	Vmax	10255	480.36	94.951	10254	480.36	94.981	10256	480.36	94.985	10254	480.37	94.956	10255	480.35	94.956
30%	Vmax	15250	480.39	95.164	15246	480.39	95.170	15251	480.39	95.180	15256	480.41	95.181	15250	480.39	95.143
50%	Vmax	26435	480.41	95.840	26439	480.4	95.837	26439	480.41	95.823	26437	480.4	95.828	26429	480.4	95.812
75%	Vmax	34172	480.35	95.908	34170	480.35	95.931	34174	480.36	95.927	34175	480.36	95.928	34168	480.36	95.922
100%	Vmax	46001	480.58	95.723	46007	480.59	95.725	45997	480.6	95.727	46008	480.59	95.723	46012	480.57	95.717

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	4716.3	239.89	94.712	4714	239.9	94.719									
20%	Vmin	10281	240.12	95.185	10283	240.12	95.195									
30%	Vmin	15416	240.15	95.525	15411	240.17	95.533									
50%	Vmin	24108	240.15	95.743	24111	240.14	95.747									
75%	Vmin	33978	240.08	95.482	33978	240.09	95.485									
100%	Vmin	45848	240.03	94.894	45839	240.03	94.877									
10%	Vnom	4709.2	330.37	94.851	4710	330.36	94.829									
20%	Vnom	10287	330.41	95.237	10286	330.4	95.229									
30%	Vnom	15310	330.41	95.530	15307	330.41	95.523									
50%	Vnom	24047	330.38	96.008	24049	330.37	95.993									
75%	Vnom	34126	330.34	95.902	34125	330.34	95.906									
100%	Vnom	45886	329.87	95.524	45893	329.89	95.533									
10%	Vmax	4678.5	480.31	94.369	4679	480.31	94.418									
20%	Vmax	10259	480.36	94.984	10259	480.36	94.964									
30%	Vmax	15254	480.4	95.169	15257	480.39	95.151									
50%	Vmax	26437	480.41	95.814	26439	480.41	95.814									
75%	Vmax	34157	480.36	95.903	34159	480.36	95.899									
100%	Vmax	46015	480.57	95.721	46012	480.58	95.729									