

Required q'ty of optimizers for repowering (three phase PV inverters, 56 models)

No	Manufacturer	Product / Type	Model	Power	No. of modules	No. of MPPT	Reference Model (NHPPT)	Minimum q'ty of optimizer				Average (generator)	Annual kWh (30%)	Annual kWh	Reproductive Annual
								2500w module	3000w module	3750w module	4500w module				
1	Diamond Zebra (former: Tabuchi Elec.)	Three phase 9.9kW inverter	EPG-T99P5	9.9KW	5	5	2,400	10	8	7	6	2,760	828	248	
2	Diamond Zebra (former: Tabuchi Elec.)	Three phase 25kW inverter	EPD-T250P6	25KW	6	6	5,000	20	17	14	12	5,750	1,725	518	
3	Diamond Zebra (former: Tabuchi Elec.)	Three phase 33.3kW inverter	EPD-T330P7	33.3KW	7	7	5,700	23	19	16	13	6,555	1,967	590	
4	Diamond Zebra (former: Tabuchi Elec.)	(End of sale) Three phase 9.9kW inverter	EPJ-T99P5-SFL	9.9KW	5	5	2,400	10	8	7	6	2,760	828	248	
5	Diamond Zebra (former: Tabuchi Elec.)	(End of sale) Three phase 25kW inverter	EPJ-T250P6-PPL	25KW	8	8	3,750	15	13	10	9	4,313	1,294	388	
6	Omron	(End of sale) Three phase 9.9kW inverter	KPT-AP9(E)	9.9KW	6	1	12,000	48	40	32	27	13,800	4,140	1,242	
7	Omron	(End of sale) Three phase 10kW inverter	KPT-A100(E)	10KW	6	1	12,000	48	40	32	27	13,800	4,140	1,242	
8	Omron	(End of sale) Three phase 12.375kW inverter	KPT-A123(E)	12.375KW	7	1	14,850	60	50	40	33	17,078	5,123	1,537	
9	Sanyo Denki	Three phase 9.9kW inverter	P73J992RJMA001/010	9.9KW	7	1	12,000	48	40	32	27	13,800	4,140	1,242	
10	Sanyo Denki	Three phase 10kW inverter	P73J103RJMA001/010	10KW	7	1	12,000	48	40	32	27	13,800	4,140	1,242	
11	Sanyo Denki	Three phase 10kW inverter	P73H103SFC	10KW	7	1	12,000	48	40	32	27	13,800	4,140	1,242	
12	Sanyo Denki	Three phase 100kW inverter, indoor type (outdoor)	P83E104RFC (RFQ)	100KW	1	1	120,000	480	400	320	267	138,000	41,400	12,420	
13	Sanyo Denki	Three phase 100kW inverter (indoor)	P83E104SFC	100KW	1	1	120,000	480	400	320	267	138,000	41,400	12,420	
14	Sanyo Denki	(End of sale) Three phase 9.9kW inverter	P73J992RFC8501/510	9.9KW	7	1	12,000	48	40	32	27	13,800	4,140	1,242	
15	Sanyo Denki	(End of sale) Three phase 10kW inverter	P73J103RFC8501/510	10KW	7	1	12,000	48	40	32	27	13,800	4,140	1,242	
16	Sanyo Denki	(End of sale) Three phase 10kW inverter	P73J103RJCA001/010	10KW	7	1	12,000	48	40	32	27	13,800	4,140	1,242	
17	Sanyo Denki	(End of sale) Three phase 100kW inverter (indoor)	P83E104RF	100KW	1	1	120,000	480	400	320	267	138,000	41,400	12,420	
18	Yaskawa Elec.	Three phase 9.9kW inverter Steel/SUS	CEPT2HA29P9B/C	9.9KW	7	1	12,000	48	40	32	27	13,800	4,140	1,242	
19	Yaskawa Elec.	Three phase 9.9kW inverter Steel/SUS	CEPT2JA29P9B/C	9.9KW	7	1	12,000	48	40	32	27	13,800	4,140	1,242	
20	Yaskawa Elec.	Three phase 10kW inverter Steel/SUS	CEPT2JA2010B/C	10KW	7	1	12,000	48	40	32	27	13,800	4,140	1,242	
21	Yaskawa Elec.	Three phase 65kW inverter	CEPT43AA4065BBA	65KW	16	4	19,500	78	65	52	44	22,425	6,728	2,018	
22	Yaskawa Elec.	Three phase 150kW inverter	CEPT43AA5150CBA	150KW	1	1	180,000	720	600	480	400	207,000	62,100	18,630	
23	SMA	(End of sale) Three phase 9.9kW inverter	STP10000TLEE-JP-11	9.9KW	6	1	12,000	48	40	32	27	13,800	4,140	1,242	
24	SMA	(End of sale) Three phase 10kW inverter	STP10000TLEE-JP-10	10KW	6	1	12,000	48	40	32	27	13,800	4,140	1,242	
25	SMA	(End of sale) Three phase 20kW inverter	STP20000TLEE-JP-11	20KW	6	1	24,000	96	80	64	54	27,600	8,280	2,484	
26	SMA	(End of sale) Three phase 24.5kW inverter	STP24500TL-JP-30	24.5KW	6	2	15,000	60	50	40	34	17,250	5,175	1,553	
27	SMA	(End of sale) Three phase 25kW inverter	STP25000TL-JP-30	25KW	6	2	15,000	60	50	40	34	17,250	5,175	1,553	
28	SMA	(End of sale) Three phase 50kW inverter	STP50-JP-40	50KW	12	6	10,000	40	34	27	23	11,500	3,450	1,035	
29	SMA	(End of sale) Three phase 60kW inverter	STP60-JP-10	60KW	2	1	72,000	288	240	192	160	82,800	24,840	7,452	
30	Huawei	Three phase 20kW inverter	SUN2000-20KTL-M3	20KW	8	4	6,000	24	20	16	14	6,900	2,070	621	
31	Huawei	Three phase 33.3kW inverter	SUN2000-33KTL-NH	33.3KW	8	4	10,000	40	34	27	23	11,500	3,450	1,035	
32	Huawei	Three phase 40kW inverter	SUN2000-40KTL-NH	40KW	8	4	12,000	48	40	32	27	13,800	4,140	1,242	
33	Huawei	Three phase 49.9kW inverter	SUN2000-50KTL-JPM1	49.9KW	12	6	10,000	40	34	27	23	11,500	3,450	1,035	
34	Huawei	Three phase 50kW inverter	SUN2000-50KTL-JPM0	50KW	12	6	10,000	40	34	27	23	11,500	3,450	1,035	
35	Huawei	Three phase 62.5kW inverter	SUN2000-63KTL-JPM0	62.5KW	12	6	12,500	50	42	34	28	14,375	4,313	1,294	
36	Huawei	Three phase 62.5kW inverter	SUN2000-63KTL-JPH0	62.5KW	12	6	12,500	50	42	34	28	14,375	4,313	1,294	
37	Huawei	Three phase 111.1kW inverter	SUN2000-111.1KTL-NH0	111.1KW	20	10	13,300	54	45	36	30	15,295	4,589	1,377	
38	Huawei	Three phase 125kW inverter	SUN2000-125KTL-JPH0	125KW	18	9	16,700	67	56	45	38	19,205	5,762	1,728	
39	Huawei	(End of sale) Three phase 33.3kW inverter	SUN2000-33KTL-JP	33.3KW	8	4	10,000	40	34	27	23	11,500	3,450	1,035	
40	Huawei	(End of sale) Three phase 40kW inverter	SUN2000-40KTL-JP	40KW	8	4	12,000	48	40	32	27	13,800	4,140	1,242	
41	Sungrow	Three phase 49.5kW inverter	SG49.5CX-JP	49.5KW	12	6	10,000	40	34	27	23	11,500	3,450	1,035	
42	Sungrow	Three phase 100kW inverter	SG100CX-JP	100KW	24	12	10,000	40	34	27	23	11,500	3,450	1,035	
43	Sungrow	Three phase 111kW inverter	SG111HV	111KW	1	1	13,300	54	45	36	30	15,295	4,589	1,377	
44	Sungrow	Three phase 125kW inverter	SG125HX-JP	125KW	24	12	12,500	50	42	34	28	14,375	4,313	1,294	
45	Sungrow	(End of sale) Three phase 33.3kW inverter	SG33KJ	33.3KW	9	3	13,300	54	45	36	30	15,295	4,589	1,377	
46	Sungrow	(End of sale) Three phase 34kW inverter	SG34KJ	34KW	4	2	20,400	82	68	55	46	23,460	7,038	2,111	
47	Sungrow	(End of sale) Three phase 49.5kW inverter	SG49KJ	49.5KW	12	4	15,000	60	50	40	34	17,250	5,175	1,553	
48	Delta Elec.	Three phase 16.5kW inverter	M16S	16.5KW	3	2	10,000	40	34	27	23	11,500	3,450	1,035	
49	Delta Elec.	Three phase 49.9kW inverter	RPI-M50J	49.9KW	6	2	30,000	120	100	80	67	34,500	10,350	3,105	
50	Delta Elec.	Three phase 50kW inverter	RPI-M50A_120	50KW	6	2	30,000	120	100	80	67	34,500	10,350	3,105	
51	Delta Elec.	Three phase 70kW inverter	M70A_260	70KW	3	6	14,000	56	47	38	32	16,100	4,830	1,449	
52	Delta Elec.	Three phase 80kW inverter	M80H	88KW	9	2	52,800	212	176	141	118	60,720	18,216	5,465	
53	Delta Elec.	Three phase 125kW inverter	M125HV	125KW	20	1	150,000	600	500	400	334	172,500	51,750	15,525	
54	Delta Elec.	(End of sale) Three phase 16kW inverter	RPI-M16A	16KW	4	2	9,600	39	32	26	22	11,040	3,312	994	
55	Delta Elec.	(End of sale) Three phase 16.5kW inverter	RPI-M16S	16.5KW	6	2	10,000	40	34	27	23	11,500	3,450	1,035	
56	Delta Elec.	(End of sale) Three phase 20kW inverter	RPI-M20A	20KW	4	2	12,000	48	40	32	27	13,800	4,140	1,242	