

# Series SPS

## Solar Sizing Chart



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### SOLAR SIZING CHART

Use this chart to determine how many 100W, 5.75A solar panels and 110Ah batteries are required to power your application.

Current @ 12VDC [A]	Insolation Factor [Hours]												Battery Bank Capacity [Ah]			Number of Panels Required	Autonomy [Days]
	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	110	220	330		
0.25	1	1	1	1	1	1	1	1	1	1	1	1	15.5	31.1	46.7		
0.50	2	2	1	1	1	1	1	1	1	1	1	1	7.7	15.5	23.3		
0.75	3	2	2	2	2	1	1	1	1	1	1	1	5.1	10.3	15.5		
1.00	4	3	2	2	2	2	2	1	1	1	1	1	3.8	7.7	11.6		
1.25	5	4	3	3	2	2	2	2	2	2	1	1	3.1	6.2	9.3		
1.50	5	4	3	3	3	2	2	2	2	2	2	2	2.5	5.1	7.7		
1.75	6	5	4	3	3	3	2	2	2	2	2	2	2.2	4.4	6.6		
2.00	7	5	4	4	3	3	3	2	2	2	2	2	1.9	3.8	5.8		
2.25	8	6	5	4	4	3	3	3	3	2	2	2	1.7	3.4	5.1		
2.50	9	7	5	5	4	4	3	3	3	3	2	2	1.5	3.1	4.6		
2.75	10	7	6	5	4	4	4	3	3	3	3	2	1.4	2.8	4.2		
3.00	10	8	6	5	5	4	4	3	3	3	3	3	1.2	2.5	3.8		
3.25	11	8	7	6	5	4	4	4	3	3	3	3	1.1	2.3	3.5		
3.50	12	9	7	6	5	5	4	4	4	3	3	3	1.1	2.2	3.3		
3.75	13	10	8	7	6	5	5	4	4	4	3	3	1.0	2.0	3.1		
4.00	14	10	8	7	6	5	5	4	4	4	4	3	0.9	1.9	2.9		
4.25	14	11	9	7	6	6	5	5	4	4	4	3	0.9	1.8	2.7		
4.50	15	12	9	8	7	6	5	5	5	4	4	4	0.8	1.7	2.5		
4.75	16	12	10	8	7	6	6	5	5	4	4	4	0.8	1.6	2.4		
5.00	17	13	10	9	8	7	6	5	5	5	4	4	0.7	1.5	2.3		
5.25	18	13	11	9	8	7	6	6	5	5	4	4	0.7	1.4	2.2		
5.50	19	14	11	10	8	7	7	6	5	5	5	4	0.7	1.4	2.1		
5.75	19	15	12	10	9	8	7	6	6	5	5	5	0.6	1.3	2.0		
6.00	20	15	12	10	9	8	7	6	6	5	5	5	0.6	1.2	1.9		
6.25	21	16	13	11	9	8	7	7	6	6	5	5	0.6	1.2	1.8		
6.50	22	16	13	11	10	8	8	7	6	6	5	5	0.5	1.1	1.7		
6.75	23	17	14	12	10	9	8	7	7	6	6	5	0.5	1.1	1.7		
7.00	23	18	14	12	10	9	8	7	7	6	6	5	0.5	1.1	1.6		
8.00	27	20	16	14	12	10	9	8	8	7	7	6	0.4	0.9	1.4		
8.25	28	21	17	14	12	11	10	9	8	7	7	6	0.4	0.9	1.4		
8.50	28	21	17	14	12	11	10	9	8	7	7	6	0.4	0.9	1.3		
8.75	28	21	17	14	12	11	10	9	8	7	7	6	0.4	0.9	1.3		
9.00	29	22	18	15	13	11	10	9	8	8	7	7	0.4	0.8	1.2		
9.25	31	23	19	16	13	12	11	10	9	8	7	7	0.4	0.8	1.2		
9.50	32	24	19	16	14	12	11	10	9	8	8	7	0.4	0.8	1.2		
9.75	32	24	20	16	14	12	11	10	9	8	8	7	0.3	0.7	1.1		
10.00	33	25	20	17	15	13	11	10	9	9	8	8	0.3	0.7	1.1		

Current Draw values are at 12.0VDC.

Chart is only valid for panel output and battery capacity noted.

Panel Output: 100W 5.75A per panel

Storage Capacity: 110Ah per battery

The Battery Bank Capacity represents a multiple of 1, 2 or 3 x 110Ah batteries.

To determine autonomy for a battery bank consisting of more than three batteries, multiply the 110Ah autonomy by the desired number of batteries.

CheckPoint offers 1-2 panel and 1-2 battery systems as standard. Some such systems may be easily combined to increase the overall capacity.

Inquire for larger custom systems.

The recommended maximum is generally 6 panels and 8 batteries.