

# SunDanzer - System Sizing for Residential Use

Step 1 → Determine Watt-Hour/Day Energy Use							Step 2 → Determine System Size					
Design Ambient Deg F	SunDanzer Model						Sun-Hrs -->	3	4	5	6	12 V Battery, Amp-Hrs
	DCRF134	DCR165	DCR225	DCF165	DCF225	DCRF450	Watt-Hours Per Day	Rated Watts	Rated Watts	Rated Watts	Rated Watts	
70	117	117	135	407	541	529	100	63	48	38	32	65
72	124	124	145	422	559	566	120	76	57	46	38	78
74	133	133	157	439	578	605	140	89	67	53	44	91
76	143	143	169	459	600	646	160	102	76	61	51	104
78	155	155	184	480	623	689	180	114	86	69	57	117
80	168	168	199	505	647	735	200	127	95	76	63	130
82	182	182	216	531	674	782	220	140	105	84	70	143
84	198	198	234	560	702	832	240	152	114	91	76	156
86	215	215	253	591	732	884	260	165	124	99	83	169
88	233	233	274	625	764	938	280	178	133	107	89	181
90	253	253	296	661	797	995	300	190	143	114	95	194
92	274	274	320	699	833	1053	350	222	167	133	111	227
94	296	296	344	739	869	1114	400	254	190	152	127	259
96	320	320	370	782	908	1176	450	286	214	171	143	292
98	345	345	398	828	948	1241	500	317	238	190	159	324
100	371	371	426	875	990	1308	550	349	262	210	175	356
102	399	399	456	925	1034	1378	600	381	286	229	190	389
104	428	428	487	977	1080	1449	650	413	310	248	206	421
106	458	458	520	1032	1127	1523	700	444	333	267	222	454
108	490	490	554	1089	1176	1598	750	476	357	286	238	486
110	523	523	589	1148	1227	1676	800	508	381	305	254	519
<p>The <u>Design Ambient Temperature</u> is the average weekly temperature during the warmest week of the year. If during the warmest week, the daily high is 100F and the daily low is 72F, then the design ambient is 86F. Refrige Temp = 38F, Freezer Temp = 10F</p> <p>Example: 5.8 cu.ft. refrigerator at 86F = 215 watt-hour/day In a 5 sun-hr/day region, you need at least a 84 Watt panel (rated) and a 143 amp-hr battery (12 V).</p>							850	540	405	324	270	551
							900	571	429	343	286	583
							950	603	452	362	302	616
							1000	635	476	381	317	648
							1050	667	500	400	333	681
							1100	698	524	419	349	713
							1150	730	548	438	365	745
							1200	762	571	457	381	778