

4S2P 1.7AH（聚阴离子电芯）电池组过放测试

一. 测试参数：12V1.7AH60C放电温升测试

二. 测试结果：

1. 充满电以60C（100A）大电流放电循环测试（间隔45秒），电压至7V以下，温感线接在总正输出镍片上。
2. 4S2P电池组60C(100A)大电流放电测试14次，
4. 测试过程中电池未漏液不起火不爆炸，最高温度68.2℃。
5. 测试后电池电压：9.529V内阻37.72MΩ

过程图示

感温探头粘贴位置总正输出镍片

电池放置



温度时间及对应电池电压充电电流

测试前温度25.6℃

电压：13.813V，电流0A，放电时间0



温度33.2℃

电压：12.7892V，电流100A，放电3S



2025-12-1	9.1009	-59.3848	0.0082	0.0751	恒流放电
2025-12-1	7.3819	-100.003	0.0912	0.6941	恒流放电
2025-12-1	7.3749	-100.003	0.1051	0.7966	恒流放电
2025-12-1	12.5181	0	0.1051	0.7966	静置
2025-12-1	12.7228	0	0.1051	0.7966	静置
2025-12-1	12.763	0	0.1051	0.7966	静置
2025-12-1	12.7651	0	0.1051	0.7966	静置
2025-12-1	12.7892	0	0.1051	0.7966	静置

温度36.1℃

电压：12.6139V，电流100A，放电3S



7.7938	-95.7028	0.1184	0.9002	恒流放电
7.53	-100.003	0.2017	1.5355	恒流放电
7.5199	-100.004	0.2156	1.6401	恒流放电
12.4131	0	0.2156	1.6401	静置
12.6138	0	0.2156	1.6401	静置
12.6139	0	0.2156	1.6401	静置

温度39.1℃

电压：12.5962V，电流100A，放电3S



2025-12-1	9.3359	-59.4478	0.2239	1.7171	↑
2025-12-1	7.6879	-100.004	0.3068	2.366	↑
2025-12-1	7.6719	-100.003	0.3207	2.4726	↑
2025-12-1	12.3651	0	0.3207	2.4726	清
2025-12-1	12.5811	0	0.3207	2.4726	清
2025-12-1	12.5882	0	0.3207	2.4726	清
2025-12-1	12.5961	0	0.3207	2.4726	清
2025-12-1	12.5962	0	0.3207	2.4726	清

温度40.4℃	电压: 12.5508V, 电流100A, 放电3S																																								
	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>9.4578</td><td>-59.4429</td><td>0.329</td><td>2.5507</td></tr> <tr><td>2025-12-1</td><td>8.1379</td><td>-95.6519</td><td>0.3412</td><td>2.6526</td></tr> <tr><td>2025-12-1</td><td>7.7199</td><td>-100.003</td><td>0.4245</td><td>3.3092</td></tr> <tr><td>2025-12-1</td><td>12.2721</td><td>0</td><td>0.4245</td><td>3.3092</td></tr> <tr><td>2025-12-1</td><td>12.5351</td><td>0</td><td>0.4245</td><td>3.3092</td></tr> <tr><td>2025-12-1</td><td>12.5351</td><td>0</td><td>0.4245</td><td>3.3092</td></tr> <tr><td>2025-12-1</td><td>12.5508</td><td>0</td><td>0.4245</td><td>3.3092</td></tr> </tbody> </table>	2025-12-1	9.4578	-59.4429	0.329	2.5507	2025-12-1	8.1379	-95.6519	0.3412	2.6526	2025-12-1	7.7199	-100.003	0.4245	3.3092	2025-12-1	12.2721	0	0.4245	3.3092	2025-12-1	12.5351	0	0.4245	3.3092	2025-12-1	12.5351	0	0.4245	3.3092	2025-12-1	12.5508	0	0.4245	3.3092					
2025-12-1	9.4578	-59.4429	0.329	2.5507																																					
2025-12-1	8.1379	-95.6519	0.3412	2.6526																																					
2025-12-1	7.7199	-100.003	0.4245	3.3092																																					
2025-12-1	12.2721	0	0.4245	3.3092																																					
2025-12-1	12.5351	0	0.4245	3.3092																																					
2025-12-1	12.5351	0	0.4245	3.3092																																					
2025-12-1	12.5508	0	0.4245	3.3092																																					
温度40.5℃	电压: 12.4721V, 电流100A, 放电3S																																								
	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>9.5549</td><td>-59.4519</td><td>0.4328</td><td>3.3881</td></tr> <tr><td>2025-12-1</td><td>7.8129</td><td>-100.003</td><td>0.5144</td><td>4.0448</td></tr> <tr><td>2025-12-1</td><td>12.2251</td><td>0</td><td>0.5144</td><td>4.0448</td></tr> <tr><td>2025-12-1</td><td>12.4561</td><td>0</td><td>0.5144</td><td>4.0448</td></tr> <tr><td>2025-12-1</td><td>12.4601</td><td>0</td><td>0.5144</td><td>4.0448</td></tr> <tr><td>2025-12-1</td><td>12.4608</td><td>0</td><td>0.5144</td><td>4.0448</td></tr> <tr><td>2025-12-1</td><td>12.4721</td><td>0</td><td>0.5144</td><td>4.0448</td></tr> </tbody> </table>	2025-12-1	9.5549	-59.4519	0.4328	3.3881	2025-12-1	7.8129	-100.003	0.5144	4.0448	2025-12-1	12.2251	0	0.5144	4.0448	2025-12-1	12.4561	0	0.5144	4.0448	2025-12-1	12.4601	0	0.5144	4.0448	2025-12-1	12.4608	0	0.5144	4.0448	2025-12-1	12.4721	0	0.5144	4.0448					
2025-12-1	9.5549	-59.4519	0.4328	3.3881																																					
2025-12-1	7.8129	-100.003	0.5144	4.0448																																					
2025-12-1	12.2251	0	0.5144	4.0448																																					
2025-12-1	12.4561	0	0.5144	4.0448																																					
2025-12-1	12.4601	0	0.5144	4.0448																																					
2025-12-1	12.4608	0	0.5144	4.0448																																					
2025-12-1	12.4721	0	0.5144	4.0448																																					
温度41.5℃	电压: 12.3341V, 电流100A, 放电3S																																								
	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>8.7209</td><td>-79.9658</td><td>0.5255</td><td>4.1417</td></tr> <tr><td>2025-12-1</td><td>7.7659</td><td>-100.003</td><td>0.6088</td><td>4.806</td></tr> <tr><td>2025-12-1</td><td>7.7468</td><td>-100.003</td><td>0.6227</td><td>4.9137</td></tr> <tr><td>2025-12-1</td><td>12.0681</td><td>0</td><td>0.6227</td><td>4.9137</td></tr> <tr><td>2025-12-1</td><td>12.3341</td><td>0</td><td>0.6227</td><td>4.9137</td></tr> </tbody> </table>	2025-12-1	8.7209	-79.9658	0.5255	4.1417	2025-12-1	7.7659	-100.003	0.6088	4.806	2025-12-1	7.7468	-100.003	0.6227	4.9137	2025-12-1	12.0681	0	0.6227	4.9137	2025-12-1	12.3341	0	0.6227	4.9137															
2025-12-1	8.7209	-79.9658	0.5255	4.1417																																					
2025-12-1	7.7659	-100.003	0.6088	4.806																																					
2025-12-1	7.7468	-100.003	0.6227	4.9137																																					
2025-12-1	12.0681	0	0.6227	4.9137																																					
2025-12-1	12.3341	0	0.6227	4.9137																																					
温度43℃	电压: 12.1931V, 电流100A, 放电3S																																								
	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>8.2559</td><td>-95.7408</td><td>0.636</td><td>5.0235</td></tr> <tr><td>2025-12-1</td><td>7.6879</td><td>-100.003</td><td>0.7194</td><td>5.6818</td></tr> <tr><td>2025-12-1</td><td>7.6529</td><td>-100.004</td><td>0.7332</td><td>5.7882</td></tr> <tr><td>2025-12-1</td><td>11.9151</td><td>0</td><td>0.7332</td><td>5.7882</td></tr> <tr><td>2025-12-1</td><td>12.1781</td><td>0</td><td>0.7332</td><td>5.7882</td></tr> <tr><td>2025-12-1</td><td>12.1829</td><td>0</td><td>0.7332</td><td>5.7882</td></tr> <tr><td>2025-12-1</td><td>12.183</td><td>0</td><td>0.7332</td><td>5.7882</td></tr> <tr><td>2025-12-1</td><td>12.1931</td><td>0</td><td>0.7332</td><td>5.7882</td></tr> </tbody> </table>	2025-12-1	8.2559	-95.7408	0.636	5.0235	2025-12-1	7.6879	-100.003	0.7194	5.6818	2025-12-1	7.6529	-100.004	0.7332	5.7882	2025-12-1	11.9151	0	0.7332	5.7882	2025-12-1	12.1781	0	0.7332	5.7882	2025-12-1	12.1829	0	0.7332	5.7882	2025-12-1	12.183	0	0.7332	5.7882	2025-12-1	12.1931	0	0.7332	5.7882
2025-12-1	8.2559	-95.7408	0.636	5.0235																																					
2025-12-1	7.6879	-100.003	0.7194	5.6818																																					
2025-12-1	7.6529	-100.004	0.7332	5.7882																																					
2025-12-1	11.9151	0	0.7332	5.7882																																					
2025-12-1	12.1781	0	0.7332	5.7882																																					
2025-12-1	12.1829	0	0.7332	5.7882																																					
2025-12-1	12.183	0	0.7332	5.7882																																					
2025-12-1	12.1931	0	0.7332	5.7882																																					
温度43.7℃	电压: 12.0291V, 电流100A, 放电3S																																								
	<table border="1"> <tbody> <tr><td>8.6239</td><td>-80.0049</td><td>0.7444</td><td>5.8841</td></tr> <tr><td>7.5479</td><td>-100.003</td><td>0.8277</td><td>6.5346</td></tr> <tr><td>11.7701</td><td>0</td><td>0.8277</td><td>6.5346</td></tr> <tr><td>12.0291</td><td>0</td><td>0.8277</td><td>6.5346</td></tr> </tbody> </table>	8.6239	-80.0049	0.7444	5.8841	7.5479	-100.003	0.8277	6.5346	11.7701	0	0.8277	6.5346	12.0291	0	0.8277	6.5346																								
8.6239	-80.0049	0.7444	5.8841																																						
7.5479	-100.003	0.8277	6.5346																																						
11.7701	0	0.8277	6.5346																																						
12.0291	0	0.8277	6.5346																																						
温度45.7℃	电压: 11.8731V, 电流100A, 放电3S																																								
	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>9.3359</td><td>-59.5378</td><td>0.836</td><td>6.6118</td></tr> <tr><td>2025-12-1</td><td>9.3359</td><td>-59.5379</td><td>0.8442</td><td>6.689</td></tr> <tr><td>2025-12-1</td><td>7.4139</td><td>-100.003</td><td>0.9275</td><td>7.3299</td></tr> <tr><td>2025-12-1</td><td>7.3899</td><td>-100.003</td><td>0.9414</td><td>7.4327</td></tr> <tr><td>2025-12-1</td><td>11.5831</td><td>0</td><td>0.9414</td><td>7.4327</td></tr> <tr><td>2025-12-1</td><td>11.8571</td><td>0</td><td>0.9414</td><td>7.4327</td></tr> <tr><td>2025-12-1</td><td>11.8731</td><td>0</td><td>0.9414</td><td>7.4327</td></tr> </tbody> </table>	2025-12-1	9.3359	-59.5378	0.836	6.6118	2025-12-1	9.3359	-59.5379	0.8442	6.689	2025-12-1	7.4139	-100.003	0.9275	7.3299	2025-12-1	7.3899	-100.003	0.9414	7.4327	2025-12-1	11.5831	0	0.9414	7.4327	2025-12-1	11.8571	0	0.9414	7.4327	2025-12-1	11.8731	0	0.9414	7.4327					
2025-12-1	9.3359	-59.5378	0.836	6.6118																																					
2025-12-1	9.3359	-59.5379	0.8442	6.689																																					
2025-12-1	7.4139	-100.003	0.9275	7.3299																																					
2025-12-1	7.3899	-100.003	0.9414	7.4327																																					
2025-12-1	11.5831	0	0.9414	7.4327																																					
2025-12-1	11.8571	0	0.9414	7.4327																																					
2025-12-1	11.8731	0	0.9414	7.4327																																					
温度46.5℃	电压: 11.5911V, 电流100A, 放电3S																																								
	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>7.8918</td><td>-99.1039</td><td>0.9552</td><td>7.5413</td></tr> <tr><td>2025-12-1</td><td>7.1001</td><td>-100.003</td><td>1.0385</td><td>8.1594</td></tr> <tr><td>2025-12-1</td><td>11.2701</td><td>0</td><td>1.0385</td><td>8.1594</td></tr> <tr><td>2025-12-1</td><td>11.5671</td><td>0</td><td>1.0385</td><td>8.1594</td></tr> <tr><td>2025-12-1</td><td>11.5751</td><td>0</td><td>1.0385</td><td>8.1594</td></tr> <tr><td>2025-12-1</td><td>11.5792</td><td>0</td><td>1.0385</td><td>8.1594</td></tr> <tr><td>2025-12-1</td><td>11.5911</td><td>0</td><td>1.0385</td><td>8.1594</td></tr> </tbody> </table>	2025-12-1	7.8918	-99.1039	0.9552	7.5413	2025-12-1	7.1001	-100.003	1.0385	8.1594	2025-12-1	11.2701	0	1.0385	8.1594	2025-12-1	11.5671	0	1.0385	8.1594	2025-12-1	11.5751	0	1.0385	8.1594	2025-12-1	11.5792	0	1.0385	8.1594	2025-12-1	11.5911	0	1.0385	8.1594					
2025-12-1	7.8918	-99.1039	0.9552	7.5413																																					
2025-12-1	7.1001	-100.003	1.0385	8.1594																																					
2025-12-1	11.2701	0	1.0385	8.1594																																					
2025-12-1	11.5671	0	1.0385	8.1594																																					
2025-12-1	11.5751	0	1.0385	8.1594																																					
2025-12-1	11.5792	0	1.0385	8.1594																																					
2025-12-1	11.5911	0	1.0385	8.1594																																					
温度45.5℃	电压: 11.1921V, 电流100A, 放电3S																																								

	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>8.9099</td><td>-59.4658</td><td>1.0468</td><td>8.233</td></tr> <tr><td>2025-12-1</td><td>6.8388</td><td>-100.003</td><td>1.1284</td><td>8.8243</td></tr> <tr><td>2025-12-1</td><td>10.9652</td><td>0</td><td>1.1284</td><td>8.8243</td></tr> <tr><td>2025-12-1</td><td>11.1921</td><td>0</td><td>1.1284</td><td>8.8243</td></tr> </tbody> </table>	2025-12-1	8.9099	-59.4658	1.0468	8.233	2025-12-1	6.8388	-100.003	1.1284	8.8243	2025-12-1	10.9652	0	1.1284	8.8243	2025-12-1	11.1921	0	1.1284	8.8243															
2025-12-1	8.9099	-59.4658	1.0468	8.233																																
2025-12-1	6.8388	-100.003	1.1284	8.8243																																
2025-12-1	10.9652	0	1.1284	8.8243																																
2025-12-1	11.1921	0	1.1284	8.8243																																
温度49.3℃	电压：10.628V，电流100A, 放电3S																																			
	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>8.5099</td><td>-59.5328</td><td>1.1367</td><td>8.8947</td></tr> <tr><td>2025-12-1</td><td>7.2259</td><td>-95.7548</td><td>1.1489</td><td>8.9856</td></tr> <tr><td>2025-12-1</td><td>6.2949</td><td>-100.003</td><td>1.2322</td><td>9.54</td></tr> <tr><td>2025-12-1</td><td>6.2232</td><td>-100.004</td><td>1.2461</td><td>9.6268</td></tr> <tr><td>2025-12-1</td><td>10.4361</td><td>0</td><td>1.2461</td><td>9.6268</td></tr> <tr><td>2025-12-1</td><td>10.628</td><td>0</td><td>1.2461</td><td>9.6268</td></tr> </tbody> </table>	2025-12-1	8.5099	-59.5328	1.1367	8.8947	2025-12-1	7.2259	-95.7548	1.1489	8.9856	2025-12-1	6.2949	-100.003	1.2322	9.54	2025-12-1	6.2232	-100.004	1.2461	9.6268	2025-12-1	10.4361	0	1.2461	9.6268	2025-12-1	10.628	0	1.2461	9.6268					
2025-12-1	8.5099	-59.5328	1.1367	8.8947																																
2025-12-1	7.2259	-95.7548	1.1489	8.9856																																
2025-12-1	6.2949	-100.003	1.2322	9.54																																
2025-12-1	6.2232	-100.004	1.2461	9.6268																																
2025-12-1	10.4361	0	1.2461	9.6268																																
2025-12-1	10.628	0	1.2461	9.6268																																
温度49.1℃	电压：10.0911V，电流100A, 放电3S																																			
	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>7.9268</td><td>-59.4688</td><td>1.2543</td><td>9.6922</td></tr> <tr><td>2025-12-1</td><td>7.9269</td><td>-59.4688</td><td>1.2626</td><td>9.7577</td></tr> <tr><td>2025-12-1</td><td>5.5699</td><td>-100.003</td><td>1.3459</td><td>10.263</td></tr> <tr><td>2025-12-1</td><td>9.9001</td><td>0</td><td>1.3459</td><td>10.263</td></tr> <tr><td>2025-12-1</td><td>10.0911</td><td>0</td><td>1.3459</td><td>10.263</td></tr> </tbody> </table>	2025-12-1	7.9268	-59.4688	1.2543	9.6922	2025-12-1	7.9269	-59.4688	1.2626	9.7577	2025-12-1	5.5699	-100.003	1.3459	10.263	2025-12-1	9.9001	0	1.3459	10.263	2025-12-1	10.0911	0	1.3459	10.263										
2025-12-1	7.9268	-59.4688	1.2543	9.6922																																
2025-12-1	7.9269	-59.4688	1.2626	9.7577																																
2025-12-1	5.5699	-100.003	1.3459	10.263																																
2025-12-1	9.9001	0	1.3459	10.263																																
2025-12-1	10.0911	0	1.3459	10.263																																
温度48.4℃	电压：9.4772V，电流100A, 放电3S																																			
	<table border="1"> <tbody> <tr><td>2025-12-1</td><td>7.3119</td><td>-59.5288</td><td>1.3541</td><td>10.3234</td></tr> <tr><td>2025-12-1</td><td>6.435</td><td>-79.9938</td><td>1.3638</td><td>10.39</td></tr> <tr><td>2025-12-1</td><td>4.6039</td><td>-100.004</td><td>1.4471</td><td>10.8251</td></tr> <tr><td>2025-12-1</td><td>4.5409</td><td>-100.004</td><td>1.461</td><td>10.8886</td></tr> <tr><td>2025-12-1</td><td>9.2191</td><td>0</td><td>1.461</td><td>10.8886</td></tr> <tr><td>2025-12-1</td><td>9.4611</td><td>0</td><td>1.461</td><td>10.8886</td></tr> <tr><td>2025-12-1</td><td>9.4772</td><td>0</td><td>1.461</td><td>10.8886</td></tr> </tbody> </table>	2025-12-1	7.3119	-59.5288	1.3541	10.3234	2025-12-1	6.435	-79.9938	1.3638	10.39	2025-12-1	4.6039	-100.004	1.4471	10.8251	2025-12-1	4.5409	-100.004	1.461	10.8886	2025-12-1	9.2191	0	1.461	10.8886	2025-12-1	9.4611	0	1.461	10.8886	2025-12-1	9.4772	0	1.461	10.8886
2025-12-1	7.3119	-59.5288	1.3541	10.3234																																
2025-12-1	6.435	-79.9938	1.3638	10.39																																
2025-12-1	4.6039	-100.004	1.4471	10.8251																																
2025-12-1	4.5409	-100.004	1.461	10.8886																																
2025-12-1	9.2191	0	1.461	10.8886																																
2025-12-1	9.4611	0	1.461	10.8886																																
2025-12-1	9.4772	0	1.461	10.8886																																
测试结束测量电芯表面温度	电压：9.529V，电流0A, 放电0S																																			
																																				
十分钟后电芯表面温度																																				
																																				

35C(摩托车4S2P大电流测试参数)

工作模式	主参数1电流(A)/ 功率(W)/电压(V)	主参数2/恒压电 压(V)/循环次数	截止电压 (V)	截止电流(A)	Jump	截止时间 (h:mm:ss)	Jump	截止温度 (°C)	Jump	截止容量 (Ah)	截止能量 (Wh)	AV(mv)
静置						00:35.0				0		0
恒流放电		100	2			00:03.0				0		0
静置						01:05.0				0		0
流程结束										0		0