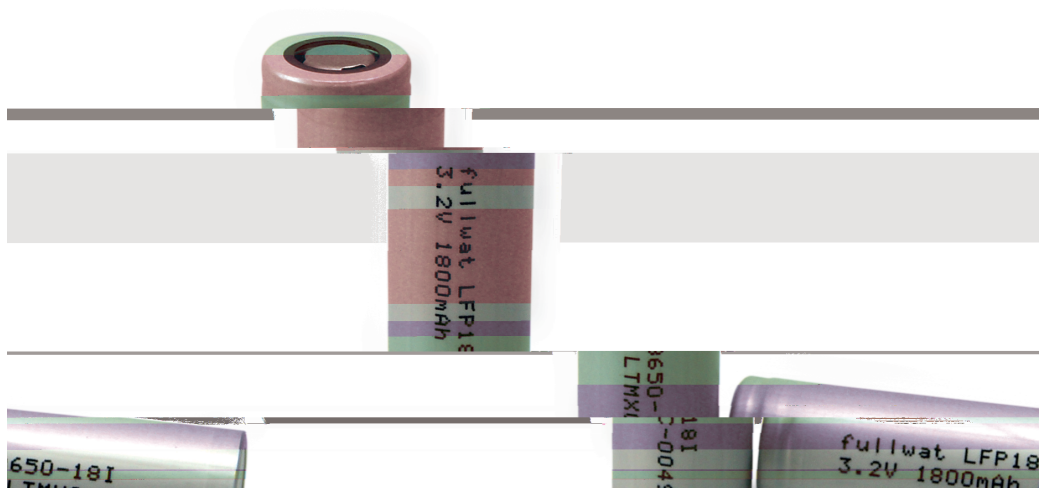




LFP18650-18I • LiFePO₄ Cell Series



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LFP18650-18I • LiFePO4 Cell Series

3. Major technical parameters

Item		Standard	Note
Standard capacity			)
Minimum capacity			
Standard Voltage			
Alternating Internal Resistance		≤40mΩ	
Charge Conditions			
Max. Charging Current			
Discharge Cut-off Voltage			
Standard Discharge Current			
Fast Discharge Current			
Max. Continuous Discharge Current			
Pulse Discharge Current		,	
Cycle Characteristic		() () ()	
Working temperature			
Storage temperature			
Cell weight			





6. Safety Characteristics

Item	Test Method	Standard
Overcharge		
Over discharge		
External Short-circuit	5 mΩ. When the temperature of batteries drops to 10°C, the test is	
Thermal Abuse		
Drop		
Heavy Impact		
Extrusion test		
Prick test	Use Φ3~5 mm high temperature resistant steel needle, to 10 mm/s~40 mm/s	

7. Environmental Adaptability

Item	Test Method	Standard
Thermal Cycle		
Static Humidity		
Vibration	Standard charge. Equip it to the vibration platform, prepare the test ~ ~	Residual Capacity≥90% Rate ≤0.5%

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8. Standard Test Environment

Temperature:

Humidity:

9. Storage and Others

Long Time Storage

Other considerations

10. Notice in Using Cell

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11. Disclaimer

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APPENDIX A - Suggestions for Cell Packs

1. Selecting principle of nickel strip is often applied to the design of cell packs

2. Relation between the cell packs design current and lead wires current breakdown, and principle of wires selection

AWG	Diameter		Cross-sectional mm ²	resistance Ω/km	normal current A	Max- current A	AWG	Diameter		Cross-sectional mm ²	resistance Ω/km	normal current A	Max- current A
	Metric/mm	Imperial/inch						Metric/mm	Imperial/inch				
0000	11.68	0.46	107.22	0.17	423.2	482.6	22	0.643	0.0253	0.3247	54.3	1.280	1.460
000	10.4	0.4096	85.01	0.21	335.5	382.6	23	0.574	0.0226	0.2588	48.5	1.002	1.165
00	9.27	0.3648	67.43	0.26	266.2	303.5	24	0.511	0.0201	0.2047	39.4	0.808	0.921
0	8.25	0.3249	53.49	0.33	211.1	240.7	25	0.44	0.0179	0.1624	29.6	0.641	0.731
1	7.35	0.2893	42.41	0.42	167.4	190.9	26	0.404	0.0159	0.1281	143	0.506	0.577
2	6.54	0.2576	33.62	0.53	132.7	151.3	27	0.361	0.0142	0.1021	128	0.403	0.460
3	5.83	0.2294	26.67	0.66	105.2	120.0	28	0.32	0.0126	0.0804	227	0.318	0.362
4	5.19	0.2043	21.15	0.84	83.5	95.2	29	0.287	0.0113	0.0647	289	0.255	0.291
5	4.62	0.1819	16.77	1.06	66.2	75.5	30	0.254	0.0100	0.0507	361	0.200	0.228
6	4.11	0.1619	13.13	1.33	52.5	60.0	31	0.226	0.0089	0.0401	327	0.179	0.203
7	3.66	0.1448	10.18	1.66	41.8	47.9	32	0.201	0.0080	0.0359	260	0.154	0.176
8	3.25	0.1279	7.96	2.06	33.5	38.2	33	0.178	0.0072	0.0325	204	0.130	0.150
9	2.91	0.1144	6.39	2.63	26.7	29.8	34	0.160	0.0065	0.0291	163	0.109	0.126
10	2.59	0.1019	5.26	3.36	20.8	23.7	35	0.142	0.0056	0.0249	120	0.093	0.107
11	2.3	0.0907	4.17	4.24	16.5	18.8	36	0.127	0.0050	0.0223	95	0.080	0.093
12	2.05	0.0808	3.33	5.31	13.1	14.9	37	0.114	0.0045	0.0098	77	0.071	0.082
13	1.82	0.0720	2.62	6.69	10.4	11.8	38	0.102	0.0040	0.0081	62	0.062	0.071
14	1.63	0.0641	2.07	8.45	8.2	9.4	39	0.089	0.0035	0.0062	51	0.054	0.062
15	1.45	0.0571	1.64	10.6	6.5	7.4	40	0.079	0.0031	0.0049	40	0.048	0.055
16	1.29	0.0508	1.31	13.5	5.2	5.9	41	0.071	0.0028	0.004	32	0.042	0.048
17	1.15	0.0453	1.02	16.3	4.1	4.7	42	0.064	0.0025	0.0032	26	0.037	0.042
18	1.02	0.0403	0.81	20.4	3.2	3.7	43	0.056	0.0022	0.0025	21	0.032	0.037
19	0.912	0.0369	0.66	26.9	2.6	2.9	44	0.051	0.0020	0.002	17	0.028	0.032
20	0.813	0.032	0.51	33.9	2.0	2.3	45	0.046	0.0018	0.0016	14	0.025	0.028
21	0.724	0.0285	0.41	42.7	1.6	1.9	46	0.041	0.0016	0.0013	11	0.022	0.025

3. Voltage protection point value (for single cell) of protection board or BMS, and selecting principle of protection board.

4. Selecting principles of chargers.

5. In the process of packs structure design and production, some measures and skills could be handled to avoid cell short circuit.