LTO Battery Cells

Images						
1) Standard Parameters	**Cylindrical 9 Amp Hour Cell**	**Cylindrical 40 Amp Hour Cell**	**Cylindrical 45 Amp Hour Cell**	**Prismatic 30 Amp Hour Cell**	**Prismatic 33 Amp Hour Cell**	**Pouch 68 Amp Hour Cell**
Nominal Voltage (V)	2.3	2.3	2.3	2.3	2.3	2.22
Rated Capacity (Ah)	9	40	45	30	33	≥68
Volume-energy density (Wh/L)	170	128	144	152	142	182
Weight-energy density (Wh/kg)	76	76	80	67	61	81
Internal resistance (mΩ)	≤1.5	≤0.5	≤0.5	≤1.0	≤1.0	0.24~0.48
Maximum continuous charge current (A)	90	240	240	180	198	500
Maximum continous discharge current (A)	90	240	240	180	198	500
10s Maximum Pulse Charge/Discharge Current (A)	180	400	400	300	330	900
Operating and Storage temperature range (°C)	-40 ~ 65	-50 ~ 65	-50 ~ 65	-50 ~ 65	-50 ~ 65	-50 ~ 65
Storage Temperature (°C)	-40 ~ 30	-5 ~ 35	-5 ~ 28	-5 ~ 28	-5 ~ 28	-40 ~ 55
2) Performance parameters						
Room temperature cycle life at 1C charge and 1C discharge, 100% DOD, 25°C	>16000 to 80% initial capacity	>25000 to 80% initial capacity	>25000 to 80% initial capacity	>16000(to 80% of initial capacity)	>16000(to 80% of initial capacity)	>1500 (to 95% of initial capacity) >25000(to 80% of initial capacity)
High temperature cycle life at 1C charge and 1C discharge, 100% DOD, 55°C	>6000 to 80% initial capacity	>10000 to 95% initial capacity	>10000 to 95% initial capacity	>1000(to 95% of initial capacity)	>1000(to 95% of initial capacity)	>1500(to 90% of initial capacity) >6000(to 80% of initial capacity)
C-rate charge performance	10C charge capacity ≥85% * initial capacity	6C charge capacity ≥ 90% * initial capacity	240A charge capacity ≥ 90% * initial capacity	6C charge capacity ≥90% * initial capacity	6C charge capacity ≥90% * initial capacity	5C charge capacity ≥95% * 1C initial capacity 8C charge capacity ≥90% * 1C initial capacity
C-rate discharge performance	10C discharge capacity ≥85% * initial capacity	6C discharge capacity ≥ 90% * initial capacity	240A discharge capacity ≥ 90% * initial capacity	6C discharge capacity ≥90% * initial capacity	6C discharge capacity ≥90% * initial capacity	5C discharge capacity ≥95% * 1C initial capacity 8C discharge capacity ≥90% * 1C initial capacity
High temperature discharge performance (1C)	65°C discharge capacity ≥ 100% * initial capacity	65°C discharge capacity ≥ 100% * initial capacity	65°C discharge capacity ≥ 100% * initial capacity	65°C discharge capacity ≥ 100% * initial capacity	65°C discharge capacity ≥100% * initial capacity	65℃ discharge capacity ≥100% initial capacity
Low temperature charge performance (1C)	-20°C charge capacity ≥ 80% * initial capacity	-20°C charge capacity ≥ 80% * initial capacity	-20°C charge capacity ≥ 80% * initial capacity	-20°C charge capacity ≥88% * initial capacity	-20°C charge capacity ≥88% * initial capacity	-20℃ charge capacity ≥85% * initial capacity -40℃ charge capacity ≥60% * initial capacity
Low temperature discharge performance (1C)	-20°C discharge capacity ≥ 50% * initial capacity	-20°C discharge capacity ≥ 70% * initial capacity -40°C discharge capacity ≥60% * initial capacity	-20°C discharge capacity ≥ 70% * initial capacity -40°C discharge capacity ≥60% * initial capacity	-20°C discharge capacity ≥ 70% * initial capacity -40°C discharge capacity ≥48% * initial capacity	-20°C discharge capacity ≥ 70% * initial capacity -40°C discharge capacity ≥48% * initial capacity	-20°C discharge capacity ≥ 70% * initial capacity -40°C discharge capacity ≥60% * initial capacity
3) Physical Parameters						
Diameter(ø)) x Height (H) (mm)	(33.2±0.5) × (140.0±0.3)	(66.0±0.5) x (161.0±0.5)	(66.0±0.5) x (161.0±0.5)	Thickness×Width×Height (mm) (28.5±1.0) × (173.0±1.0) × (97.0±1.0)	Thickness×Width×Height (mm) (21.0±1.0) × (130.0±1.0) × (205.0±1.0)	Thickness×Width×Height (mm) (12.6±1.0) × (256.0±1.0) × (263.0±1.0)
Weight (g)	270±5	1210±30	1270±30	1030±30	1245±30	1880±30
4) Transportation						
Transportation Specifications	Tested to UN 38.3	Tested to UN 38.3	Tested to UN 38.3	Tested to UN 38.3	Tested to UN 38.3	Tested to UN 38.3