

Vinnic®

銀戰士電池



**Lithium-ion
Rechargeable Batteries**
鋰離子充電電池



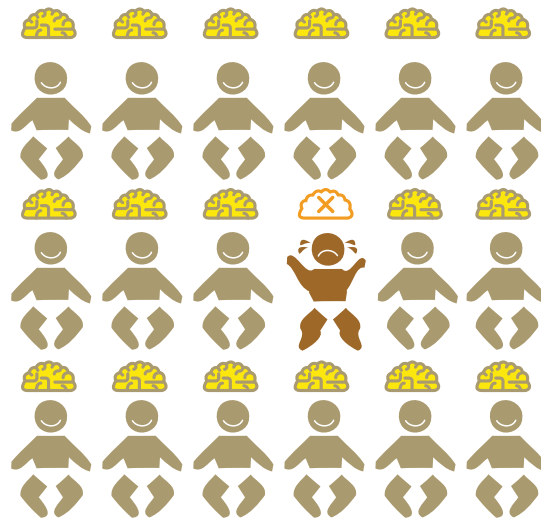
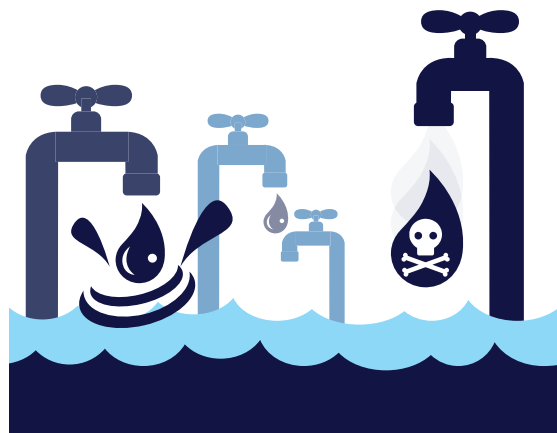
Lithium-ion Rechargeable Batteries 鋰離子充電電池

- 25 million children in the world were suffered from drinking of LEAD, MERCURY and CADMIUM contaminated water!
- Every 6 of thousand patients in the world were caused by the exposure of LEAD!
- There are around 600 thousands children in the world were mentally disable due to the exposure to LEAD!

Heavy metals such as lead, mercury and cadmium may have long-term impact on the health of human beings and other organisms. For example, lead poisoning can cause damage to the liver, kidneys, brain and even intellectual ability. Mercury poisoning can cause damage to the liver, skin and nervous system, whereas cadmium poisoning can lead to renal failure and osteomalacia.

- 每年世界約有2500萬名兒童，因為水污染而引發疾病，當中包括鉛中毒、汞中毒及鎘中毒！
- 由鉛接觸造成全球的疾病負擔就有0.6%！
- 估計每年由鉛接觸所導致的智力殘疾兒童約為60萬！

鉛、汞及鎘這幾種重金屬，對人類及其他生物的健康影響深遠，像鉛中毒會造成肝、腎、腦的損害，甚至智力永久受損！汞中毒可導致肝、皮膚同神經受損，而鎘中毒就會引起腎功能喪失、骨質軟化等問題！



Corporate video



公司短片



Product video



產品短片



WeChat



Weibo



Facebook



天猫

0% 鉛 LEAD
汞 MERCURY
鎘 CADMIUM

Environment friendly 環保

Since 2016, with the support of professional R&D team and engaged senior expert consultants, Vinnic increase the investment in research and development for all series of high-performance Lithium-ion battery, including Polymer Lithium-ion Battery, Rechargeable Lithium-ion Cells, Cylindrical Lithium-ion Rechargeable Battery, Power Bank. Lithium-ion battery contains no polluting heavy metal, such as lead, mercury, cadmium, etc. This is a further milestone in the development of high performance, reliable and environment friendly batteries.

Chung Pak has been keen on development of environment friendly batteries for over 40 years. And the fruitful achievement is devoted to our lovely earth, and our next generation.

2016年，銀戰士利用專業的研發團隊及聘請資深專家顧問，大力研發各種規格的高性能的鋰離子電池，包括鋰離子聚合物電池，鋰離子扣式充電電池，圓柱鋰離子電池，移動電源等。鋰離子電池不含有任何鉛、汞、鎘等對環境存在有污染的重金屬。這是銀戰士研發高性能、安全可靠的環保電池的新里程碑。

為了地球，為了下一代，松栢在過去40多年致力生產無鉛無汞無鎘的環保高性能電池。



Lithium-ion Rechargeable Battery

鋰離子充電電池

Polymer Lithium-ion Rechargeable Battery 鋰離子聚合物充電電池

Main Features 產品特性

Quality:

High Energy Density
High Voltage
Low Self-discharge Rate
Long Running Time
Long Cycle Life

品質:

高能量密度
高工作電壓
低自放電
電力持久
循環壽命長

Chemical Structure

Positive Electrode – Lithium Cobaltate
Negative Electrode – Graphite
Electrolyte – Lithium Hexafluorophosphate

化學成份:

正極 - 鈷酸鋰
負極 - 石墨
電解液 - 六氟磷酸鋰

Application :

- Smart wearable electronic products
- Bluetooth headset
- Hearing aid
- Medical equipment
- Learning machine
- POS machine
- Electronic cigarette

用途:

- 智能穿戴電子產品
- 藍牙耳機
- 助聽器
- 醫療設備
- 學習機
- POS機
- 電子煙



Polymer Lithium-ion Rechargeable Battery 鋰離子聚合物充電電池

Polymer Lithium-ion Rechargeable Battery

鋰離子聚合物充電電池

Specifications 產品規格



Model no. 型號	Nominal voltage (V) 標稱電壓 (V)	Nominal capacity (mAh) 典型容量 (mAh)	Charge Cut-off Voltage (V) 充電電壓 (V)	Internal Impedance (mΩ) 內阻 (mΩ)	Charge & Discharge 充電電		Dimension 規格			Weight (g) 重量 (g)
					Charge (C) 充電 (C)	Discharge (C) 放電 (C)	Thickness (mm) 厚度 (mm)	Width (mm) 寬度 (mm)	Height (mm) 長度 (mm)	
PL1248	3.7V	40	4.2	≤600	0.2	0.2	4.8	12.0	/	1.2
PL1454	3.7V	85	4.2	≤600	0.2	0.2	5.5	14.2	/	1.9
PL301033	3.7	80	4.2	≤330	0.2	0.2	3.15	10.2	33.0	1.8
PL301058	3.7	145	4.2	≤330	0.2	0.2	3.0	10.0	59.0	3.1
PL302022	3.7	90	4.2	≤285	0.2	0.2	3.0	20.0	22.0	2.2
PL311222	3.7	70	4.2	≤410	0.2	0.2	3.1	12.0	22.0	1.6
PL360819	3.7	35	4.2	≤700	0.2	0.2	3.6	8.0	19.0	0.98
PL401030	3.7	95	4.2	≤420	0.2	0.2	4.0	10.5	30.0	2.2
PL421422	3.7	80	4.2	≤285	0.2	0.2	4.2	14.0	22.0	1.9
PL451425	3.7	120	4.2	≤420	0.2	0.2	4.4	14.0	26.0	2.8
PL461045	3.8	200	4.35	≤420	0.2	0.2	4.6	10.2	46.0	4.0
PL500846	3.7	130	4.2	≤260	0.2	0.2	5.0	8.5	48.0	2.9
PL500846	3.7	180	4.2	≤260	0.2	0.2	5.0	8.5	48.0	3.6
PL501015	3.7	50	4.2	≤480	0.2	0.2	5.8	10.5	15.5	1.3
PL501045	3.7	180	4.2	≤285	0.2	0.2	5.0	10.0	45.0	3.9
PL501220	3.7	80	4.2	≤420	0.2	0.2	5.3	12.0	21.0	1.9
PL501230	3.7	150	4.2	≤420	0.2	0.2	5.0	12.0	31.0	3.5
PL501245	3.7	230	4.2	≤170	0.2	0.2	5.0	12.0	45.0	5.9
PL502022	3.7	180	4.2	≤420	0.2	0.2	5.5	21.5	23.0	4.0
PL502030	3.7	250	4.2	≤420	0.2	0.2	5.3	20.3	32.0	5.5
PL502422	3.7	230	4.2	≤420	0.2	0.2	5.5	24.5	23.0	5.0
PL503040	3.7	650	4.2	≤180	0.2	0.2	5.0	30.0	41.0	14.0
PL503060	3.7	960	4.2	≤285	0.2	0.2	5.0	30.0	60.0	17.0
PL503450	3.7	950	4.2	≤285	0.2	0.2	5.0	34.0	50.0	19.0
PL503562	3.7	1100	4.2	≤285	0.2	0.2	5.0	35.0	62.0	21.3
PL571558	3.7	550	4.2	≤285	0.2	0.2	5.9	15.0	58.5	10.5
PL601115	3.7	60	4.2	≤520	0.2	0.2	6.0	11.0	16.3	1.5
PL603040	3.7	750	4.2	≤285	0.2	0.2	6.3	30.1	40.0	15.0
PL652025	3.7	270	4.2	≤420	0.2	0.2	6.6	21.0	27.0	5.5
PL702035	3.7	450	4.2	≤120	0.2	0.2	7.0	20.0	35.0	8.4
PL752032	3.7	380	4.2	≤170	0.2	0.2	7.5	20.0	30.0	7.2
PL752530	3.7	500	4.2	≤200	0.2	0.2	7.5	25.5	32.5	9.8
PL802728	3.7	600	4.2	≤420	0.2	0.2	8.0	27.0	28.0	11.5
PL852035	3.7	650	4.2	≤420	0.2	0.2	8.8	21.0	39.0	12.0
PL902030	3.7	500	4.2	≤420	0.2	0.2	9.4	32.0	21.0	11.0
PL903040	3.7	1150	4.2	≤420	0.2	0.2	9.0	31.0	42.0	20.2

Model no. 型號	Nominal voltage (V) 標稱電壓 (V)	Nominal capacity (mAh) 典型容量 (mAh)	Charge Cut-off Voltage (V) 充電電壓 (V)	Internal Impedance (mΩ) 內阻 (mΩ)	Charge & Discharge 充電電		Dimension 規格		Weight (g) 重量 (g)
					Charge (C) 充電 (C)	Discharge (C) 放電 (C)	Diameter (mm) 直徑 (mm)	Height (mm) 長度 (mm)	
09330	3.7	250	4.2	≤120	0.2	0.2	9.6	33.0	4.9
09360	3.7	300	4.2	≤100	0.2	0.2	9.6	36.0	5.6
13430	3.7	750	4.2	≤120	0.2	0.2	13.4	43.0	13.1
17430	3.7	1300	4.2	≤70	0.2	0.2	17.5	43.0	22.7
4P13430	3.7	3000	4.2	≤220	0.2	0.2	14.0	175.0	56.0
3P17430	3.7	3900	4.2	≤200	0.2	0.2	18.0	132.0	72.0

- Capacity and Dimension can be customized according to customer specifications and requirements
- Model No. represent dimension of the battery (TxWxH)

- 產品的容量及尺寸可按客戶要求特別安排
- 電池型號由厚度 x 寬度 x 長度的數據組成

Lithium-ion Rechargeable Batteries

鋰離子充電電池

Rechargeable Lithium-ion Cells

鋰離子扣式充電電池

Main Features 產品特性

Quality:

High Energy Density
Low Self-discharge Rate
Long Running Time
Long Cycle Life

品質:

高能量密度
低自放電
電力持久
循環壽命長

Chemical Structure

Positive Electrode – Lithium Cobaltate
Negative Electrode – Graphite
Electrolyte – Lithium Hexafluorophosphate

化學成份:

正極 - 鈷酸鋰
負極 - 石墨
電解液 - 六氟磷酸鋰

Application :

- Smart wearable electronic products
- Bluetooth headset
- Portable electronic products
- Medical equipment
- Games toys
- Hearing aids

用途:

- 智能穿戴電子產品
- 藍牙耳機
- 便攜式電子產品
- 醫療設備
- 遊戲機
- 助聽器



Rechargeable Lithium-ion Cells 鋰離子扣式充電電池

Rechargeable Lithium-ion Cells 鋰離子扣式充電電池



Specifications 產品規格

Model no. 型號	Nominal voltage (V) 標稱電壓 (V)	Nominal capacity (mAh) 典型容量 (mAh)	Dimension 尺寸		Average weight (g) 平均重量 (g)
			Diameter (mm) 直徑 (mm)	Height (mm) 高度 (mm)	
ICR1254	3.7	50	12.1	5.6	1.6
ICR1454	3.7	70	14.1	5.6	2.3
ICR1654	3.7	100	16.1	5.6	3.0

Cross Reference Guide 電池對照表

Model no. 型號	Varta 型號	Other 其它
ICR1254	CP 1254 A3 / ICR1245	LIR1254 / 1254
ICR1454	CP 1454 A3 / ICR1454	LIR1454 / 1454
ICR1654	CP 1654 A3 / ICR1654	LIR 1654 / 1654



Cylindrical Lithium-ion Rechargeable Battery

圓柱鋰離子充電電池

18650 Battery Series 18650 電池系列



Chemical Structure

Positive Electrode – Lithium Nickel Cobalt Manganese Oxide

Negative Electrode – Graphite

化學成份:

正極 - 鎳鈷錳酸鋰

負極 - 石墨

Specifications 產品規格

Model no. 型號	Nominal voltage (V) 額定電壓 (V)	Nominal capacity (mAh) 額定容量 (mAh)	Dimension with tube 帶管尺寸		Standard Charge 標準充電		Rapid Charge 快速充電		Maximum Discharge Current (A) 最大放電電流 (A)	Weight (g) 重量 (g)
			Dimension (mm) 尺寸 (mm)	Height (mm) 長度 (mm)	Current (mA) 電流 (mA)	Cut-off voltage (V) 終止電壓 (V)	Current (mA) 電流 (mA)	Cut-off voltage (V) 終止電壓 (V)		
INR18650P-1300P	3.7	1300	18±0.2	65±0.5	650	4.2	3000	4.2	20	42
INR18650P-1500P	3.7	1500	18±0.2	65±0.5	750	4.2	3000	4.2	20	43
INR18650H-2000A	3.7	2000	18±0.2	65±0.5	1000	4.2	3000	4.2	20	43
INR18650H-2200A	3.7	2200	18±0.2	65±0.5	1100	4.2	3000	4.2	10	43

Garden Tools 園林工具

Battery Capacity 電池容量	Discharge Conditions 放電條件	Charging Conditions 充電條件	Rapid Charge(min) 快速充電時間	Standard Charge(min) 標準充電時間
2.0Ah	10A (5C)	3A (MAX)	50-70	120-150
2.2Ah	11A (5C)	3A (MAX)	50-70	120-150

Construction Tools 建築工具

Battery Capacity 電池容量	Discharge Conditions 放電條件	Charging Conditions 充電條件	Rapid Charge(min) 快速充電時間	Standard Charge(min) 標準充電時間
1.3Ah	20A	3A (MAX)	30-40	120-150
1.5Ah	20A	3A (MAX)	40-50	120-150
2.0Ah	20A	3A (MAX)	50-70	120-150

Home Appliances 家庭電器

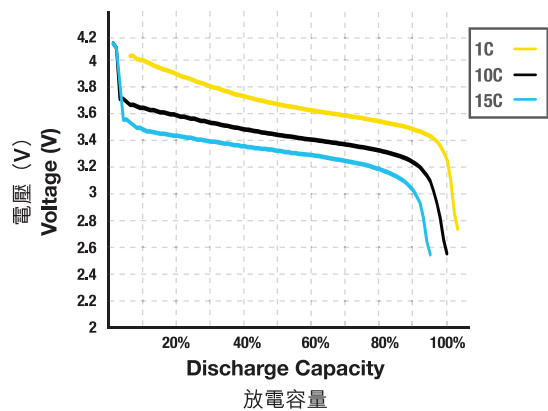
Battery Capacity 電池容量	Discharge Conditions 放電條件	Charging Conditions 充電條件	Rapid Charge(min) 快速充電時間	Standard Charge(min) 標準充電時間
2.0Ah	10A (5C)	3A (MAX)	50-70	120-150
2.2Ah	11A (5C)	3A (MAX)	50-70	120-150

Cylindrical Lithium-ion Rechargeable Battery 圓柱鋰離子充電電池

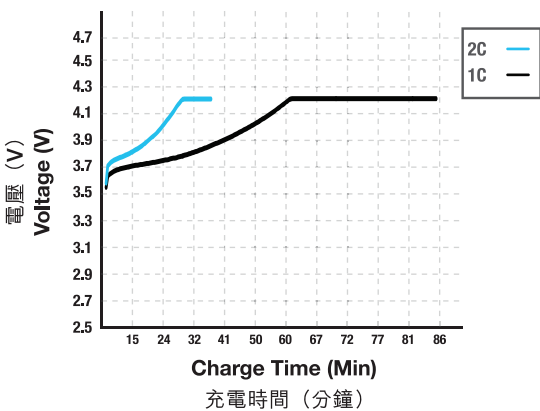
18650 Battery Series 18650 電池系列



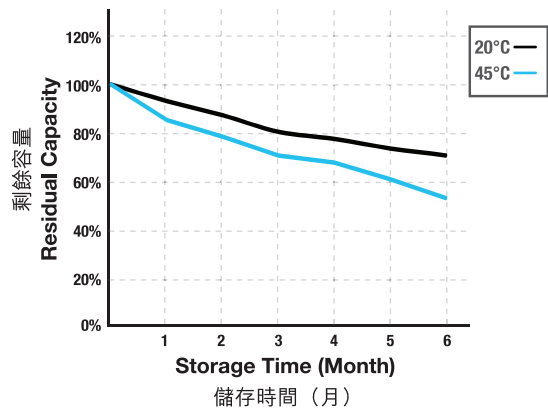
Discharge Charateristics
放電特性



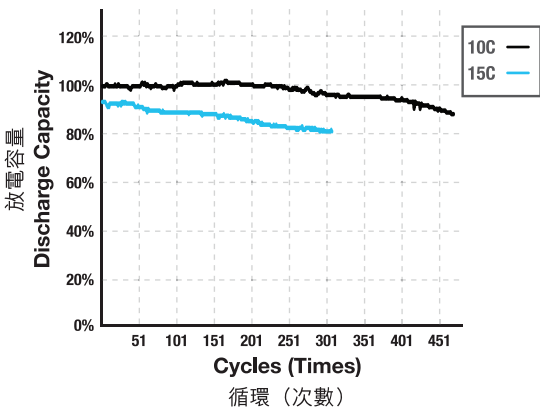
Charge Charateristics
充電特性



Storage Charateristics
存儲特性



Cycle Life
循環壽命





Power Bank

移動電源

Main Features 產品特性

Quality :

- Various capacity
- Charge-discharge cycle ≥ 1000 times
- Charge and power supply specifically for Apple products series, most brand mobile phones on the market, and other different mobile digital device
- Built-in intelligent protection system to prevent overcharging and short circuit, stable and reliable
- Small volume, beautiful appearance, convenient to take
- Can be customized according to customer specifications and requirements

Application :

- Smart Phone
- Tablet
- Handheld game console
- Bluetooth device
- MP3 Player

品質：

- 多種不同容量
- 充放電循環 ≥ 1000 次
- 專為蘋果系列及市場上大部份品牌手機、其他不同的可移動數碼設備供電和充電
- 內置智能保護系統，有效防止過充和短路，穩定可靠
- 體積小，美觀，方便攜帶
- 可按客戶要求設計

用途：

- 智能手機
- 平板電腦
- 手提遊戲機
- 藍牙裝置
- MP3機



Power Bank

移動電源

Specifications 產品規格

Model no. 型號	Capacity (mAh) 容量 (mAh)	Dimension 規格			Net weight (g) 淨重量 (g)
		Thickness (mm) 厚度 (mm)	Width (mm) 寬度 (mm)	Height (mm) 長度 (mm)	
N6	5000	10	72	139	150
N7	8000	10	72	152	190
N9	10000	21	60	136	290
N10	10000	16	72	147	250



Power Bank

移動電源

Packing 包裝



• Power Bank's color can be accommodated as required

• 產品顏色可按客戶要求



**POWERED
BY PROFESSIONALS**
專業力量 專心為你

Lithium-ion Rechargeable Batteries 鋰離子充電電池

CHUNG PAK GROUP 松栢集團

HEAD OFFICE 總公司

CHUNG PAK BATTERY WORKS LTD.
松栢電池廠有限公司

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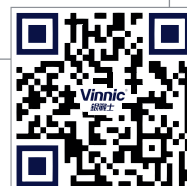
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Fo Shan City, Guangdong Province, China

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Tel 電話: (579) 8518 7925 Fax 傳真: (579) 8519 7925

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No.17925, 6 Street 3/F, G District 2 Phase International Trade City Yiwu,
ZheJiang Province





Power Bank

移動電源

Main Features 產品特性

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