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作为全球干法电极和安全储能的引领者，  
普兰将以干法电极、钛酸锂为基础，以全固态电池为突破，  
助力绿色发展，启航零碳未来。

As the global leader in dry electrode and safe energy storage system,  
Plannano will utilize dry electrodes and LTO battery as the foundation,  
all-solid-state batteries as the breakthrough,  
to accelerate green development and set sail for a zero-carbon future.

**天津普兰纳米科技有限公司**

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PRODUCT CATALOGUE\_202406\_V1.0



官网

公众号

宣传册



# PRODUCT CATALOGUE

## 产品目录

为全球用户提供完整的新能源产品和解决方案

PROVIDE COMPLETE NEW ENERGY PRODUCTS AND SOLUTIONS  
FOR GLOBAL USERS

# POWDER MATERIALS

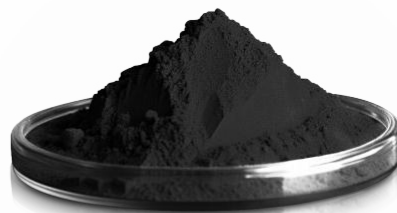
## 粉末材料

1



# GRAPHENE

## 石墨烯材料



产品名称 PRODUCT NAME	产品型号 PRODUCT MODEL	产品规格 PRODUCT SPECIFICATIONS
单层石墨烯氧化物 Single-layer graphene oxide	Sgraphene-001	固体粉末, 纯度>99%, 厚度0.7-1.2nm, 在水和DMF等中具有优良的溶解性, 金属含量<10ppm, 不溶性杂质<0.01%。 Solid powder, purity >99%, thickness 0.7-1.2nm, excellent solubility in water and DMF, etc., metal content < 10ppm, insoluble impurities < 0.01%.
单层石墨烯 Single-layer graphene	Sgraphene-002	固体粉末, 纯度>99%, 层厚0.7-1.2nm, 金属含量<10ppm。 Solid powder, purity >99%, layer thickness 0.7-1.2nm, metal content < 10ppm.
单层石墨烯氧化物水溶液 Aqueous solution of single-layer graphene oxide	Sgraphene-010	浓度2mg/ml, 厚度0.7-1.2nm, 保证溶液稳定性一年以上。 The concentration is 2mg/ml, and the thickness is 0.7-1.2nm, which ensures the solution is stable for more than one year.
单层石墨烯水溶液 Aqueous solution of single-layer graphene	Sgraphene-030	浓度1mg/ml, 厚度0.7-1.2nm, 保证溶液稳定性一年以上。 The concentration is 1mg/ml, and the thickness is 0.7-1.2nm, which ensures the solution is stable for more than one year.
寡层石墨烯 Few-layer graphene	Sgraphene-070	固体粉末, 纯度>99%, 85%为2-4层, 厚度1-3nm, 在水和DMF等中具有优良的溶解性, 金属含量<10ppm, 不溶性杂质<0.01%。 Solid powder, purity > 99%, 85% is 2-4 layers, thickness 1-3nm, excellent solubility in water and DMF, etc., metal content < 10ppm, insoluble impurities < 0.01%.

# LTO MATERIAL

## 钛酸锂材料



项目 Project	标准值 Standard Value	典型值 Typical Value
振实密度 (g/cm <sup>3</sup> ) Tap density	1.3±0.3	1.35
pH值 PH	10.5±0.5	10.6
比表面积 (m <sup>2</sup> /g) Specific surface area	3.5±0.5	3.5
粒度分布 Particle Size Distribution		
D10 (μm)	≥0.1	0.25
D50 (μm)	13±3	13.7
D90 (μm)	≤40	29.3
电性能 Electrical Performance		
0.5C可逆容量 (mAh/g) 0.5C reversible capacity	≥163	168
1C可逆容量 (mAh/g) 1C reversible capacity	≥158	163
5C可逆容量 (mAh/g) 5C reversible capacity	≥155	160
首次效率 1st efficiency	≥95%	≥96%
元素含量 Element Content		
Fe (ppm)	≤50	≤50
Cu (ppm)	≤50	≤50

# DRY ELECTRODE

## 干法电极

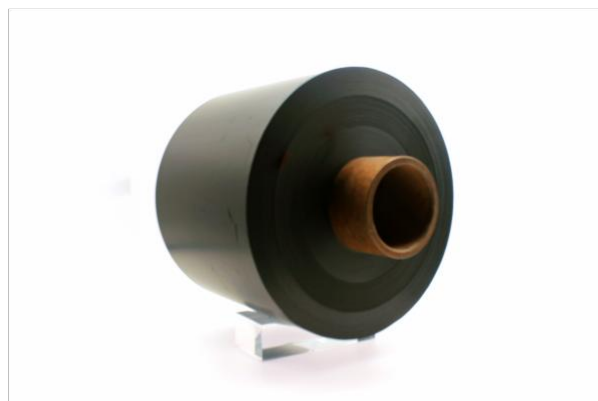
2



高容量系列 High Capacitance Series

# DRY CAPACITOR ELECTRODE

干法电容电极



## 高容量ABD系列 High Capacitance ABD Series

产品型号 Product Model	PL-ABD-22600-125	PL-ABD-22600-115
极片类型 Electrode Type	单面 Single Face Coated	单面 Single Face Coated
总宽度 (mm) Total Width	226	226
料区宽度 (mm) Width of the Coated Area	226	226
单边留白宽度 (mm) Width of the Tab	0	0
极片厚度 (mm) Thickness of the Electrode	125	115
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$2277 \pm 3\%$	$2049 \pm 3\%$



高容量系列 High Capacitance Series

# DRY CAPACITOR ELECTRODE

干法电容电极



## 高容量PHD系列 High Capacitance PHD Series

产品型号 Product Model	PL-PHD-22600-135
极片类型 Electrode Type	单面 Single Face Coated
总宽度 (mm) Total Width	226
料区宽度 (mm) Width of the Coated Area	226
单边留白宽度 (mm) Width of the Tab	0
极片厚度 (mm) Thickness of the Electrode	135
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$2161 \pm 3\%$

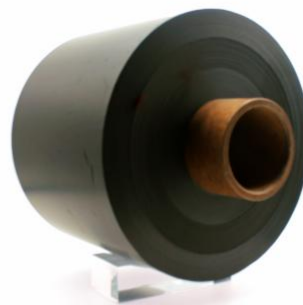




高容量系列 High Capacitance Series

# DRY CAPACITOR ELECTRODE

干法电容电极



## 高容量ABS系列 High Capacitance ABS Series

产品型号 Product Model	PL-ABS-22600-235	PL-ABS-22910-235
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	226	229
料区宽度 (mm) Width of the Coated Area	226	229
单边留白宽度 (mm) Width of the Tab	0	0
极片厚度 (mm) Thickness of the Electrode	235	235
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$4589 \pm 3\%$	$4589 \pm 3\%$



高循环系列 High Cycle Life Series

# DRY CAPACITOR ELECTRODE

## 干法电容电极



### 高循环AAD系列 High Cycle Life AAD Series

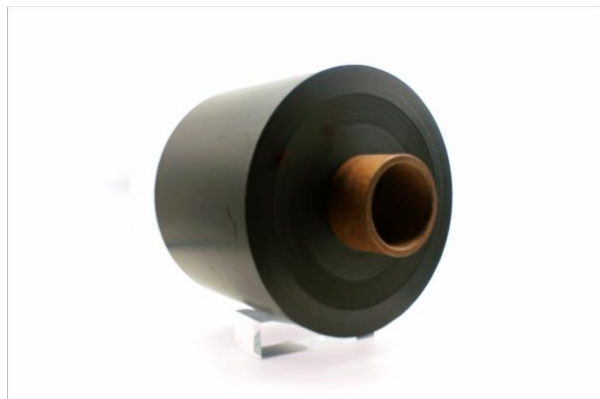
产品型号 Product Model	PL-AAD-22600-135	PL-AAD-22600-110
极片类型 Electrode Type	单面 Single Face Coated	单面 Single Face Coated
总宽度 (mm) Total Width	226	226
料区宽度 (mm) Width of the Coated Area	226	226
单边留白宽度 (mm) Width of the Tab	0	0
极片厚度 (mm) Thickness of the Electrode	135	110
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$1878 \pm 3\%$	$1451 \pm 3\%$



高循环系列 High Cycle Life Series

# DRY CAPACITOR ELECTRODE

## 干法电容电极



高循环AAS系列 High Cycle Life AAS Series		
产品型号 Product Model	PL-AAS-22600-250	PL-AAS-22600-215
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	226	226
料区宽度 (mm) Width of the Coated Area	226	226
单边留白宽度 (mm) Width of the Tab	0	0
极片厚度 (mm) Thickness of the Electrode	250	215
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3812 \pm 3\%$	$3812 \pm 3\%$
产品型号 Product Model	PL-AAS-23400-250	
极片类型 Electrode Type	双面 Double Faces Coated	
总宽度 (mm) Total Width	234	
料区宽度 (mm) Width of the Coated Area	234	
单边留白宽度 (mm) Width of the Tab	0	
极片厚度 (mm) Thickness of the Electrode	250	
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3812 \pm 3\%$	



高循环系列 High Cycle Life Series

# DRY CAPACITOR ELECTRODE

## 干法电容电极



### 高循环AAS系列 High Cycle Life AAS Series

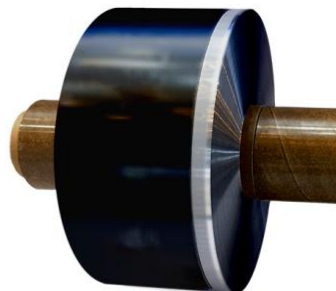
产品型号 Product Model	PL-AAS-08209-250	PL-AAS-08209-215
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	91	91
料区宽度 (mm) Width of the Coated Area	82	82
单边留白宽度 (mm) Width of the Tab	9	9
极片厚度 (mm) Thickness of the Electrode	250	215
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3812 \pm 3\%$	$3812 \pm 3\%$

产品型号 Product Model	PL-AAS-04307-250	PL-AAS-04307-215
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	50	50
料区宽度 (mm) Width of the Coated Area	43	43
单边留白宽度 (mm) Width of the Tab	7	7
极片厚度 (mm) Thickness of the Electrode	250	215
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3812 \pm 3\%$	$3812 \pm 3\%$

高循环系列 High Cycle Life Series

# DRY CAPACITOR ELECTRODE

干法电容电极



高循环AAS系列 High Cycle Life AAS Series		
产品型号 Product Model	PL-AAS-22907-250	PL-AAS-11015-250
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	236	125
料区宽度 (mm) Width of the Coated Area	229	110
单边留白宽度 (mm) Width of the Tab	7	15
极片厚度 (mm) Thickness of the Electrode	250	250
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3812 \pm 3\%$	$3812 \pm 3\%$



高循环系列 High Cycle Life Series

# DRY CAPACITOR ELECTRODE

## 干法电容电极



### 高循环PWS系列 High Cycle Life PWS Series

产品型号 Product Model	PL-PWS-11015-220	PL-PWS-11015-250
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	125	125
料区宽度 (mm) Width of the Coated Area	110	110
单边留白宽度 (mm) Width of the Tab	15	15
极片厚度 (mm) Thickness of the Electrode	220	250
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3043 \pm 3\%$	$3512 \pm 3\%$

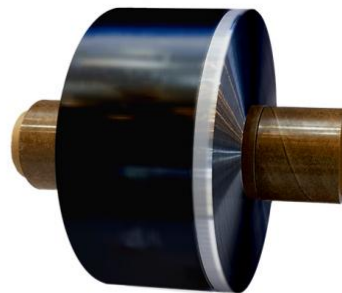
\* 所有产品均可根据客户需求进行定制 All products can be customized according to clients' needs.



高循环系列 High Cycle Life Series

# DRY CAPACITOR ELECTRODE

## 干法电容电极



高循环PPS系列 High Cycle Life PPS Series		
产品型号 Product Model	PL-PPS-11015-250	PL-PPS-11015-200
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	125	125
料区宽度 (mm) Width of the Coated Area	110	110
单边留白宽度 (mm) Width of the Tab	15	15
极片厚度 (mm) Thickness of the Electrode	250	200
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3581 \pm 3\%$	$2785 \pm 3\%$

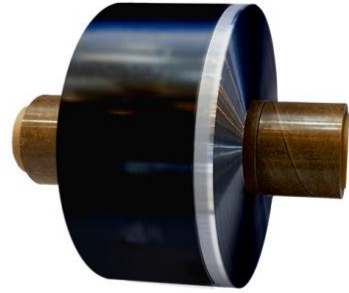
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高循环系列 High Cycle Life Series

# DRY CAPACITOR ELECTRODE

## 干法电容电极



高循环PQS系列 High Cycle Life PQS Series		
产品型号 Product Model	PL-PQS-07415-250	PL-PQS-11015-250
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	89	125
料区宽度 (mm) Width of the Coated Area	74	110
单边留白宽度 (mm) Width of the Tab	15	15
极片厚度 (mm) Thickness of the Electrode	250	250
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3512 \pm 3\%$	$3512 \pm 3\%$

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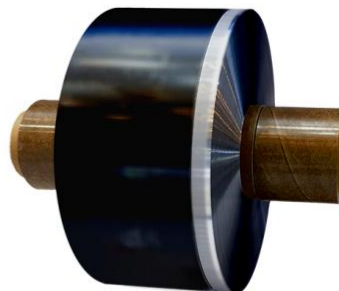




低成本系列 Low Cost Series

# DRY CAPACITOR ELECTRODE

## 干法电容电极



### 低成本ACS系列 Low Cost ACS Series

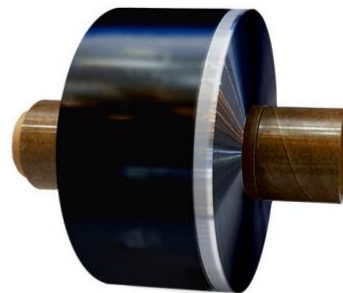
产品型号 Product Model	PL-ACS-22015-250
极片类型 Electrode Type	双面 Double Faces Coated
总宽度 (mm) Total Width	250
料区宽度 (mm) Width of the Coated Area	220
单边留白宽度 (mm) Width of the Tab	15
极片厚度 (mm) Thickness of the Electrode	250
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	待定



低成本系列 Low Cost Series

# DRY CAPACITOR ELECTRODE

## 干法电容电极



### 低成本PMS系列 Low Cost PMS Series

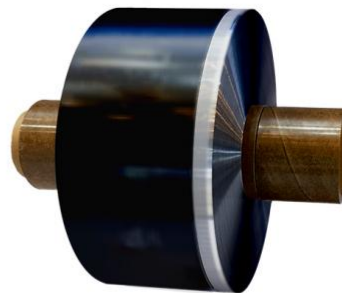
产品型号 Product Model	PL-PMS-11015-215	PL-PMS-11015-185
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	125	125
料区宽度 (mm) Width of the Coated Area	110	110
单边留白宽度 (mm) Width of the Tab	15	15
极片厚度 (mm) Thickness of the Electrode	215	185
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$2976 \pm 3\%$	$2506 \pm 3\%$

产品型号 Product Model	PL-PMS-11015-250	PL-PMS-11015-200
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	125	125
料区宽度 (mm) Width of the Coated Area	110	110
单边留白宽度 (mm) Width of the Tab	15	15
极片厚度 (mm) Thickness of the Electrode	250	200
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3471 \pm 3\%$	$2741 \pm 3\%$

低成本系列 Low Cost Series

# DRY CAPACITOR ELECTRODE

## 干法电容电极



低成本PNS系列 Low Cost PNS Series		
产品型号 Product Model	PL-PNS-11015-255	PL-PNS-11015-180
极片类型 Electrode Type	双面 Double Faces Coated	双面 Double Faces Coated
总宽度 (mm) Total Width	125	125
料区宽度 (mm) Width of the Coated Area	110	110
单边留白宽度 (mm) Width of the Tab	15	15
极片厚度 (mm) Thickness of the Electrode	255	180
双电层电容器中参考容量发挥 $F/m^2$ Capacitance of the Double-layer Capacitor for Reference	$3548 \pm 3\%$	$2427 \pm 3\%$



# LTO BATTERY

## 钛酸锂电池

3



## C SERIES

# LTO BATTERY

## 钛酸锂电池



### 基本参数 General Specifications

产品型号 Product Model	PLITR18650CA-1500mAh-2.4V
标称容量 Nominal Capacity	1500mAh
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	3.6Wh
能量密度 Energy Density	80Wh/kg
内阻 Resistance	≤25mΩ
充放电电压范围 Charging and Discharging Voltage	1.5V~2.7V
标准充电电流 Standard Charging Current	1500mA
标准放电电流 Standard Discharging Current	1500mA
最大持续充电电流 Max. Constant Charging Current	3000mA
最大持续放电电流 Max. Constant Discharging Current	6000mA
最大充电电流 Max. Charging Current	6000mA
最大放电电流 Max. Discharging Current	12000mA
低温放电效率 (ΔT = -20°C) Low Temperature Discharge Efficiency	≥80%
低温放电效率 (ΔT = -40°C) Low Temperature Discharge Efficiency	≥70%
常温循环寿命@80% Normal Temperature Cycle Life@80%	≥8000

### 物理参数 Physical Parameters

重量 Weight	42±2g
直径 Diameter	18.5±0.2 mm
总高 Hlgh	65.5±0.5 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	充电: -50~65°C 放电: -50~65°C
存储温度 Storage Temperature	小于1年: -10~25°C 小于3个月: -30~45°C

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS GB38031-2020, CB
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## C SERIES

## LTO BATTERY

## 钛酸锂电池

基本参数  
General Specifications

产品型号 Product Model	PLITR18650CB-1500mAh-2.4V
标称容量 Nominal Capacity	1500mAh
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	3.6Wh
能量密度 Energy Density	80Wh/kg
内阻 Resistance	≤15mΩ
充放电电压范围 Charging and Discharging Voltage	1.5V~2.7V
标准充电电流 Standard Charging Current	1500mA
标准放电电流 Standard Discharging Current	1500mA
最大持续充电电流 Max. Constant Charging Current	4500mA
最大持续放电电流 Max. Constant Discharging Current	7500mA
最大充电电流 Max. Charging Current	7500mA
最大放电电流 Max. Discharging Current	12000mA
低温放电效率 (ΔT = -20°C) Low Temperature Discharge Efficiency	≥80%
低温放电效率 (ΔT = -40°C) Low Temperature Discharge Efficiency	≥70%
常温循环寿命@80% Normal Temperature Cycle Life@80%	≥12000

物理参数  
Physical Parameters

重量 Weight	42±2g
直径 Diameter	18.5±0.2 mm
总高 Hlgh	65.5±0.5 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	充电: -50~65°C 放电: -50~65°C
存储温度 Storage Temperature	小于1年: -10~25°C 小于3个月: -30~45°C

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS GB38031-2020, CB
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## C SERIES

# LTO BATTERY

## 钛酸锂电池



### 基本参数 General Specifications

产品型号 Product Model	PLITR60100CWLA-20Ah-2.4V
标称容量 Nominal Capacity	20Ah
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	48Wh
能量密度 Energy Density	73.8Wh/kg
内阻 Resistance	$\leq 0.5\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.8V
标准充电电流 Standard Charging Current	20A
标准放电电流 Standard Discharging Current	20A
最大持续充电电流 Max. Constant Charging Current	80A
最大持续放电电流 Max. Constant Discharging Current	160A
最大充电电流 Max. Charging Current	240A
最大放电电流 Max. Discharging Current	400A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 85\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 80\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 15000$

### 物理参数 Physical Parameters

重量 Weight	615 $\pm$ 10g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 Hlgh	110.1 $\pm$ 0.3 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

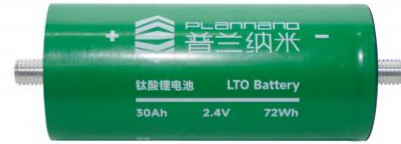
### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## C SERIES

# LTO BATTERY

## 钛酸锂电池



### 基本参数 General Specifications

产品型号 Product Model	PLITR60138CSTA-30Ah-2.4V
标称容量 Nominal Capacity	30Ah
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	72Wh
能量密度 Energy Density	85Wh/kg
内阻 Resistance	$\leq 0.35\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.8V
标准充电电流 Standard Charging Current	30A
标准放电电流 Standard Discharging Current	30A
最大持续充电电流 Max. Constant Charging Current	120A
最大持续放电电流 Max. Constant Discharging Current	240A
最大充电电流 Max. Charging Current	360A
最大放电电流 Max. Discharging Current	600A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 85\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 80\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 15000$

### 物理参数 Physical Parameters

重量 Weight	839 $\pm$ 12g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 Hlgh	168.5 $\pm$ 0.3 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949



## C SERIES

## LTO BATTERY

## 钛酸锂电池

基本参数  
General Specifications

产品型号 Product Model	PLITR60138CWLA-30Ah-2.4V
标称容量 Nominal Capacity	30Ah
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	72Wh
能量密度 Energy Density	85Wh/kg
内阻 Resistance	$\leq 0.5\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.8V
标准充电电流 Standard Charging Current	30A
标准放电电流 Standard Discharging Current	30A
最大持续充电电流 Max. Constant Charging Current	120A
最大持续放电电流 Max. Constant Discharging Current	240A
最大充电电流 Max. Charging Current	360A
最大放电电流 Max. Discharging Current	600A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 85\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 80\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 15000$

物理参数  
Physical Parameters

重量 Weight	833 $\pm$ 12g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 Hlgh	146.5 $\pm$ 0.5 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## M SERIES

## LTO BATTERY

## 钛酸锂电池

基本参数  
General Specifications

产品型号 Product Model	PLITR60138MSTA-24Ah-2.4V
标称容量 Nominal Capacity	24Ah
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	57.6Wh
能量密度 Energy Density	69.4Wh/kg
内阻 Resistance	$\leq 0.45\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.8V
标准充电电流 Standard Charging Current	24A
标准放电电流 Standard Discharging Current	24A
最大持续充电电流 Max. Constant Charging Current	72A
最大持续放电电流 Max. Constant Discharging Current	120A
最大充电电流 Max. Charging Current	144A
最大放电电流 Max. Discharging Current	240A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 70\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 50\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 20000$

物理参数  
Physical Parameters

重量 Weight	803 $\pm$ 12g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 Hlgh	168.5 $\pm$ 0.3 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## M SERIES

# LTO BATTERY

## 钛酸锂电池



### 基本参数 General Specifications

产品型号 Product Model	PLITR60138MSTA-27Ah-2.4V
标称容量 Nominal Capacity	27Ah
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	64.8Wh
能量密度 Energy Density	72Wh/kg
内阻 Resistance	≤0.5mΩ
充放电电压范围 Charging and Discharging Voltage	1.5V~2.8V
标准充电电流 Standard Charging Current	27A
标准放电电流 Standard Discharging Current	27A
最大持续充电电流 Max. Constant Charging Current	81A
最大持续放电电流 Max. Constant Discharging Current	135A
最大充电电流 Max. Charging Current	162A
最大放电电流 Max. Discharging Current	270A
低温放电效率 (ΔT = -20°C) Low Temperature Discharge Efficiency	≥70%
低温放电效率 (ΔT = -40°C) Low Temperature Discharge Efficiency	≥50%
常温循环寿命@80% Normal Temperature Cycle Life@80%	≥10000

### 物理参数 Physical Parameters

重量 Weight	850±12g
直径 Diameter	60.5±0.3 mm
总高 Hlgh	168.5±0.3 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	充电 Charge: -50~65°C 放电 Discharge: -50~65°C
存储温度 Storage Temperature	小于 1 年: -10~25°C; 小于 3 个月: -30~45°C; Less than one year: -10~25°C; Less than three months: -30~45°C

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## X SERIES

## LTO BATTERY

## 钛酸锂电池

基本参数  
General Specifications

产品型号 Product Model	PLITR60138XWLB-24Ah-2.3V
标称容量 Nominal Capacity	24Ah
标称电压 Nominal Voltage	2.3V
标称能量 Nominal Energy	55.2Wh
能量密度 Energy Density	65Wh/kg
内阻 Resistance	$\leq 0.3\text{m}\Omega$
充电电压范围 Charging and Discharging Voltage	1.5V~2.7V
标准充电电流 Standard Charging Current	24A
标准放电电流 Standard Discharging Current	24A
最大持续充电电流 Max. Constant Charging Current	192A
最大持续放电电流 Max. Constant Discharging Current	192A
最大充电电流 Max. Charging Current	480A
最大放电电流 Max. Discharging Current	720A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 60\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 45\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 30000$

物理参数  
Physical Parameters

重量 Weight	828 $\pm$ 12g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 Hlgh	146.5 $\pm$ 0.3 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## X SERIES

## LTO BATTERY

## 钛酸锂电池

基本参数  
General Specifications

产品型号 Product Model	PLITR60138XSTB-24Ah-2.3V
标称容量 Nominal Capacity	24Ah
标称电压 Nominal Voltage	2.3V
标称能量 Nominal Energy	55.2Wh
能量密度 Energy Density	65Wh/kg
内阻 Resistance	$\leq 0.5\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.7V
标准充电电流 Standard Charging Current	24A
标准放电电流 Standard Discharging Current	24A
最大持续充电电流 Max. Constant Charging Current	192A
最大持续放电电流 Max. Constant Discharging Current	192A
最大充电电流 Max. Charging Current	480A
最大放电电流 Max. Discharging Current	720A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 60\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 45\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 20000$

物理参数  
Physical Parameters

重量 Weight	834 $\pm$ 12g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 Hlgh	168.5 $\pm$ 0.3 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

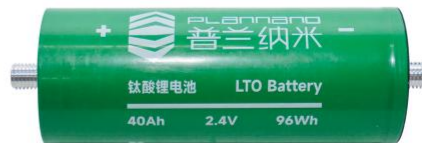
认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## C SERIES

## LTO BATTERY

## 钛酸锂电池



### 基本参数 General Specifications

产品型号 Product Model	PLITR60165CSTB-40Ah-2.4V
标称容量 Nominal Capacity	40Ah
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	96Wh
能量密度 Energy Density	91.4Wh/kg
内阻 Resistance	$\leq 0.3\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.9V
标准充电电流 Standard Charging Current	40A
标准放电电流 Standard Discharging Current	40A
最大持续充电电流 Max. Constant Charging Current	240A
最大持续放电电流 Max. Constant Discharging Current	320A
最大充电电流 Max. Charging Current	480A
最大放电电流 Max. Discharging Current	800A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 85\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 80\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 25000$

### 物理参数 Physical Parameters

重量 Weight	1050 $\pm$ 15g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 High	193.6 $\pm$ 0.3 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## C SERIES

# LTO BATTERY

## 钛酸锂电池



### 基本参数 General Specifications

产品型号 Product Model	PLITR60165CWL B-40Ah-2.4V
标称容量 Nominal Capacity	40Ah
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	96Wh
能量密度 Energy Density	91.4Wh/kg
内阻 Resistance	$\leq 0.3\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.9V
标准充电电流 Standard Charging Current	40A
标准放电电流 Standard Discharging Current	40A
最大持续充电电流 Max. Constant Charging Current	240A
最大持续放电电流 Max. Constant Discharging Current	320A
最大充电电流 Max. Charging Current	480A
最大放电电流 Max. Discharging Current	800A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 85\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 80\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 25000$

### 物理参数 Physical Parameters

重量 Weight	1050 $\pm$ 15g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 Hlgh	171.6 $\pm$ 0.3 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

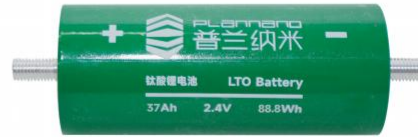
### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## C SERIES

## LTO BATTERY

## 钛酸锂电池

基本参数  
General Specifications

产品型号 Product Model	PLITR60165CSTA-37Ah-2.4V
标称容量 Nominal Capacity	37Ah
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	88.8Wh
能量密度 Energy Density	84.6Wh/kg
内阻 Resistance	$\leq 0.3\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.8V
标准充电电流 Standard Charging Current	37A
标准放电电流 Standard Discharging Current	37A
最大持续充电电流 Max. Constant Charging Current	148A
最大持续放电电流 Max. Constant Discharging Current	296A
最大充电电流 Max. Charging Current	444A
最大放电电流 Max. Discharging Current	740A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 85\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 80\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 10000$

物理参数  
Physical Parameters

重量 Weight	1013 $\pm$ 15g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 Hlgh	193.6 $\pm$ 0.3 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949



## X SERIES

## LTO BATTERY

## 钛酸锂电池

基本参数  
General Specifications

产品型号 Product Model	PLITR60165XWLC-35Ah-2.3V
标称容量 Nominal Capacity	35Ah
标称电压 Nominal Voltage	2.3V
标称能量 Nominal Energy	80.5Wh
能量密度 Energy Density	76Wh/kg
内阻 Resistance	$\leq 0.3\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.7V
标准充电电流 Standard Charging Current	35A
标准放电电流 Standard Discharging Current	35A
最大持续充电电流 Max. Constant Charging Current	210A
最大持续放电电流 Max. Constant Discharging Current	210A
最大充电电流 Max. Charging Current	700A
最大放电电流 Max. Discharging Current	1050A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 60\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 45\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 30000$

物理参数  
Physical Parameters

重量 Weight	1012g $\pm$ 15g
直径 Diameter	60.5 $\pm$ 0.3 mm
总高 Height	171.6 $\pm$ 0.3 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	充电 Charge: $-50\sim 65^\circ\text{C}$ 放电 Discharge: $-50\sim 65^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## C SERIES

## LTO BATTERY

## 钛酸锂电池

基本参数  
General Specifications

产品型号 Product Model	PLITR66160CSTE-45Ah-2.4V
标称容量 Nominal Capacity	45Ah
标称电压 Nominal Voltage	2.4V
标称能量 Nominal Energy	108Wh
能量密度 Energy Density	86.4Wh/kg
内阻 Resistance	$\leq 0.3\text{m}\Omega$
充放电电压范围 Charging and Discharging Voltage	1.5V~2.9V
标准充电电流 Standard Charging Current	45A
标准放电电流 Standard Discharging Current	45A
最大持续充电电流 Max. Constant Charging Current	360A
最大持续放电电流 Max. Constant Discharging Current	360A
最大充电电流 Max. Charging Current	900A
最大放电电流 Max. Discharging Current	1350A
低温放电效率 ( $\Delta T = -20^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 80\%$
低温放电效率 ( $\Delta T = -40^\circ\text{C}$ ) Low Temperature Discharge Efficiency	$\geq 85\%$
常温循环寿命@80% Normal Temperature Cycle Life@80%	$\geq 30000$

物理参数  
Physical Parameters

重量 Weight	1250 $\pm$ 12g
直径 Diameter	66 $\pm$ 0.3 mm
总高 Hlgh	209.5 $\pm$ 0.3 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	充电 Charge: $-40\sim 60^\circ\text{C}$ 放电 Discharge: $-50\sim 60^\circ\text{C}$
存储温度 Storage Temperature	小于 1 年: $-10\sim 25^\circ\text{C}$ ; 小于 3 个月: $-30\sim 45^\circ\text{C}$ ; Less than one year: $-10\sim 25^\circ\text{C}$ ; Less than three months: $-30\sim 45^\circ\text{C}$

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

# SUPERCAPACITOR CELL & MODULE

## 超级电容器(单体&模组)

4



## 2.7V SERIES

# SUPERCAPACITOR (CELL)

## 超级电容器 (单体)



### 基本参数 General Specifications

产品型号 Product Model	PLUC2000C2R70WLA
额定电压 Rated Voltage	2.7V
浪涌电压 Surge Voltage	2.85V
自放电 (72h后电压) Self-discharge (Voltage after 72h)	≥80%
额定容量 Rated Capacitance	2000F
容量允许偏差 Capacitance Tolerance	0% ~+10%
最大连续电流 (ΔT = 15°C) Max. Continuous Current	129A
最大连续电流 (ΔT = 40°C) Max. Continuous Current	210A
最大等效直流电阻 Max. Equivalent DC Resistance	0.30mΩ
漏电流 Leakage Current	3.0mA
峰值电流 Peak Current	1775A
储存能量 Energy Storage	2.03Wh
能量密度 Energy Density	5.4Wh/kg
可用比功率 Usable Specific Power	8.97kW/kg
阻抗匹配功率密度 Impedance Match Specific Power	21.13kW/kg

### 物理参数 Physical Parameters

重量 Weight	375g
尺寸 (D*H) Size	60.8 * 108.9 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## 2.7V SERIES

# SUPERCAPACITOR (CELL)

## 超级电容器 (单体)



### 基本参数 General Specifications

产品型号 Product Model	PLUC3000C2R70WLA
额定电压 Rated Voltage	2.7V
浪涌电压 Surge Voltage	2.85V
自放电 (72h后电压) Self-discharge (Voltage after 72h)	≥80%
额定容量 Rated Capacitance	3000F
容量允许偏差 Capacitance Tolerance	0% ~+10%
最大连续电流 (ΔT = 15°C) Max. Continuous Current	149A
最大连续电流 (ΔT = 40°C) Max. Continuous Current	244A
最大等效直流电阻 Max. Equivalent DC Resistance	0.25mΩ
漏电流 Leakage Current	5.2mA
峰值电流 Peak Current	2480A
储存能量 Energy Storage	3.04Wh
能量密度 Energy Density	6.0Wh/kg
可用比功率 Usable Specific Power	8.3kW/kg
阻抗匹配功率密度 Impedance Match Specific Power	20.1kW/kg

### 物理参数 Physical Parameters

重量 Weight	375g
尺寸 (D*H) Size	60.8 * 144.9 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## 2.7V SERIES

# SUPERCAPACITOR (CELL)

## 超级电容器 (单体)



### 基本参数 General Specifications

产品型号 Product Model	PLUC3400C2R70WLA
额定电压 Rated Voltage	2.7V
浪涌电压 Surge Voltage	2.85V
自放电 (72h后电压) Self-discharge (Voltage after 72h)	≥80%
额定容量 Rated Capacitance	3400F
容量允许偏差 Capacitance Tolerance	0% ~+10%
最大连续电流 (ΔT = 15°C) Max. Continuous Current	161A
最大连续电流 (ΔT = 40°C) Max. Continuous Current	263A
最大等效直流电阻 Max. Equivalent DC Resistance	0.22mΩ
漏电流 Leakage Current	10.0mA
峰值电流 Peak Current	2847A
储存能量 Energy Storage	3.44Wh
能量密度 Energy Density	6.6Wh/kg
可用比功率 Usable Specific Power	9.35kW/kg
阻抗匹配功率密度 Impedance Match Specific Power	23.37kW/kg

### 物理参数 Physical Parameters

重量 Weight	375g
尺寸 (D*H) Size	60.8 * 144.9 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## 3.0V SERIES

# SUPERCAPACITOR (CELL)

## 超级电容器 (单体)



### 基本参数 General Specifications

产品型号 Product Model	PLUC1500C3R00WLA
额定电压 Rated Voltage	3.0V
浪涌电压 Surge Voltage	3.15V
自放电 (72h后电压) Self-discharge (Voltage after 72h)	≥80%
额定容量 Rated Capacitance	1500F
容量允许偏差 Capacitance Tolerance	0% ~+20%
最大连续电流 ( $\Delta T = 15^{\circ}\text{C}$ ) Max. Continuous Current	103A
最大连续电流 ( $\Delta T = 40^{\circ}\text{C}$ ) Max. Continuous Current	169A
最大等效直流电阻 Max. Equivalent DC Resistance	0.35m $\Omega$
漏电流 Leakage Current	8.0mA
峰值电流 Peak Current	1536A
储存能量 Energy Storage	1.88Wh
能量密度 Energy Density	5.9Wh/kg
可用比功率 Usable Specific Power	10.09kW/kg
阻抗匹配功率密度 Impedance Match Specific Power	25.11kW/kg

### 物理参数 Physical Parameters

重量 Weight	320g
尺寸 (D*H) Size	60.8 * 91 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	-40 $^{\circ}\text{C}$ ~ +65 $^{\circ}\text{C}$
存储温度 Storage Temperature	-40 $^{\circ}\text{C}$ ~ +70 $^{\circ}\text{C}$

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## 3.0V SERIES

# SUPERCAPACITOR (CELL)

## 超级电容器 (单体)



### 基本参数 General Specifications

产品型号 Product Model	PLUC1500C3R00STA
额定电压 Rated Voltage	3.0V
浪涌电压 Surge Voltage	3.15V
自放电 (72h后电压) Self-discharge (Voltage after 72h)	≥80%
额定容量 Rated Capacitance	1500F
容量允许偏差 Capacitance Tolerance	0% ~+20%
最大连续电流 ( $\Delta T = 15^{\circ}\text{C}$ ) Max. Continuous Current	103A
最大连续电流 ( $\Delta T = 40^{\circ}\text{C}$ ) Max. Continuous Current	169A
最大等效直流电阻 Max. Equivalent DC Resistance	0.35m $\Omega$
漏电流 Leakage Current	8.0mA
峰值电流 Peak Current	1536A
储存能量 Energy Storage	1.88Wh
能量密度 Energy Density	5.9Wh/kg
可用比功率 Usable Specific Power	10.09kW/kg
阻抗匹配功率密度 Impedance Match Specific Power	25.11kW/kg

### 物理参数 Physical Parameters

重量 Weight	320g
尺寸 (D*H) Size	60.8 * 113 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949



## 3.0V SERIES

# SUPERCAPACITOR (CELL)

## 超级电容器 (单体)



### 基本参数 General Specifications

产品型号 Product Model	PLUC3000C3R00WLA
额定电压 Rated Voltage	3.0V
浪涌电压 Surge Voltage	3.15V
自放电 (72h后电压) Self-discharge (Voltage after 72h)	≥80%
额定容量 Rated Capacitance	3000F
容量允许偏差 Capacitance Tolerance	0% ~+20%
最大连续电流 (ΔT = 15°C) Max. Continuous Current	146A
最大连续电流 (ΔT = 40°C) Max. Continuous Current	238A
最大等效直流电阻 Max. Equivalent DC Resistance	0.24mΩ
漏电流 Leakage Current	12.0mA
峰值电流 Peak Current	2710A
储存能量 Energy Storage	3.75Wh
能量密度 Energy Density	7.1Wh/kg
可用比功率 Usable Specific Power	9.4kW/kg
阻抗匹配功率密度 Impedance Match Specific Power	23.8kW/kg

### 物理参数 Physical Parameters

重量 Weight	525g
尺寸 (D*H) Size	60.8 * 144.9 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## 3.0V SERIES

# SUPERCAPACITOR (CELL)

## 超级电容器 (单体)



### 基本参数 General Specifications

产品型号 Product Model	PLUC3000C3R00STA
额定电压 Rated Voltage	3.0V
浪涌电压 Surge Voltage	3.15V
自放电 (72h后电压) Self-discharge (Voltage after 72h)	≥80%
额定容量 Rated Capacitance	3000F
容量允许偏差 Capacitance Tolerance	0% ~+20%
最大连续电流 ( $\Delta T = 15^{\circ}\text{C}$ ) Max. Continuous Current	146A
最大连续电流 ( $\Delta T = 40^{\circ}\text{C}$ ) Max. Continuous Current	238A
最大等效直流电阻 Max. Equivalent DC Resistance	0.24m $\Omega$
漏电流 Leakage Current	12.0mA
峰值电流 Peak Current	2710A
储存能量 Energy Storage	3.75Wh
能量密度 Energy Density	7.1Wh/kg
可用比功率 Usable Specific Power	9.4kW/kg
阻抗匹配功率密度 Impedance Match Specific Power	23.8kW/kg

### 物理参数 Physical Parameters

重量 Weight	525g
尺寸 (D*H) Size	60.8 * 166.9 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	-40 $^{\circ}\text{C}$ ~ +65 $^{\circ}\text{C}$
存储温度 Storage Temperature	-40 $^{\circ}\text{C}$ ~ +70 $^{\circ}\text{C}$

### 认证&报告 Certification & Reporting

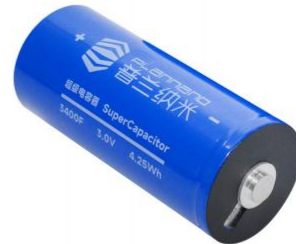
产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

\* 所有产品均可根据客户需求进行定制 All products can be customized according to clients' needs.

## 3.0V SERIES

# SUPERCAPACITOR (CELL)

## 超级电容器 (单体)



### 基本参数 General Specifications

产品型号 Product Model	PLUC3400C3R00WLA
额定电压 Rated Voltage	3.0V
浪涌电压 Surge Voltage	3.15V
自放电 (72h后电压) Self-discharge (Voltage after 72h)	≥80%
额定容量 Rated Capacitance	3400F
容量允许偏差 Capacitance Tolerance	0% ~+10%
最大连续电流 ( $\Delta T = 15^{\circ}\text{C}$ ) Max. Continuous Current	145A
最大连续电流 ( $\Delta T = 40^{\circ}\text{C}$ ) Max. Continuous Current	238A
最大等效直流电阻 Max. Equivalent DC Resistance	0.15m $\Omega$
漏电流 Leakage Current	12.0mA
峰值电流 Peak Current	2917A
储存能量 Energy Storage	4.25Wh
能量密度 Energy Density	8.2Wh/kg
可用比功率 Usable Specific Power	9.44kW/kg
阻抗匹配功率密度 Impedance Match Specific Power	24.04kW/kg

### 物理参数 Physical Parameters

重量 Weight	520g
尺寸 (D*H) Size	60.8 * 144.9 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	-40 $^{\circ}\text{C}$ ~ +65 $^{\circ}\text{C}$
存储温度 Storage Temperature	-40 $^{\circ}\text{C}$ ~ +70 $^{\circ}\text{C}$

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

## 3.0V SERIES

# SUPERCAPACITOR (CELL)

## 超级电容器 (单体)



基本参数 General Specifications	
产品型号 Product Model	PLUC3400C3R00STA
额定电压 Rated Voltage	3.0V
浪涌电压 Surge Voltage	3.15V
自放电 (72h后电压) Self-discharge (Voltage after 72h)	≥80%
额定容量 Rated Capacitance	3400F
容量允许偏差 Capacitance Tolerance	0% ~+10%
最大连续电流 ( $\Delta T = 15^{\circ}\text{C}$ ) Max. Continuous Current	145A
最大连续电流 ( $\Delta T = 40^{\circ}\text{C}$ ) Max. Continuous Current	238A
最大等效直流电阻 Max. Equivalent DC Resistance	0.15m $\Omega$
漏电流 Leakage Current	12.0mA
峰值电流 Peak Current	2917A
储存能量 Energy Storage	4.25Wh
能量密度 Energy Density	8.2Wh/kg
可用比功率 Usable Specific Power	9.44kW/kg
阻抗匹配功率密度 Impedance Match Specific Power	24.04kW/kg

物理参数 Physical Parameters	
重量 Weight	520g
尺寸 (D*H) Size	60.8 * 166.9 mm

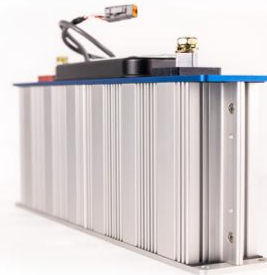
温度范围 Temperature Range	
工作温度 Operating Temperature	-40 $^{\circ}\text{C}$ ~ +65 $^{\circ}\text{C}$
存储温度 Storage Temperature	-40 $^{\circ}\text{C}$ ~ +70 $^{\circ}\text{C}$

认证&报告 Certification & Reporting	
产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

16V500F

## SUPERCAPACITOR (MODULE)

## 超级电容器 (模组)

基本参数  
General Specifications

产品型号 Product Model	PLMC0500C0-0016R0A
标称容量 Nominal Capacitance	500F
标称容量公差 Nominal Capacity Tolerance	0%~+10%
标称电压 Nominal Voltage	16V DC
浪涌电压 Surge Voltage	17.1V DC
等效串联内阻 ESR	≤2.1mΩ
最大连续电流 (ΔT=40°C) Max. continuous current	199A
最大峰值电流 (1s) Max. Peak current (1s)	1951A
漏电流 Leakage Current	5.2mA
单体规格 Cell Specifications	2.7V 3000F
模组配置 Module Structure	1P6S
最大储存能量 Max. Storage Energy	17.8Wh
质量能量密度 Mass Storage Energy	2.97Wh/kg
循环寿命 Cycle Life	1,000,000 cycles
防护等级 Protection Level	IP65

物理参数  
Physical Parameters

重量 Weight	≤6.0Kg
尺寸 (L*W*H) Size	419x70x180 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949



48V165F

## SUPERCAPACITOR (MODULE)

## 超级电容器 (模组)

基本参数  
General Specifications

产品型号 Product Model	PLMC0165C0-0048R0A
标称容量 Nominal Capacitance	165F
标称容量公差 Nominal Capacity Tolerance	0%~+10%
标称电压 Nominal Voltage	48V DC
浪涌电压 Surge Voltage	51.3V DC
等效串联内阻 ESR	≤6mΩ
最大连续电流 (ΔT=40°C) Max. continuous current	163A
最大峰值电流 (1s) Max. Peak current (1s)	1990A
漏电流 Leakage Current	6mA
单体规格 Cell Specifications	2.7V 3000F
模组配置 Module Structure	1P18S
最大储存能量 Max. Storage Energy	52.8Wh
质量能量密度 Mass Storage Energy	3.52Wh/kg
循环寿命 Cycle Life	1,000,000 cycles
防护等级 Protection Level	IP65

物理参数  
Physical Parameters

重量 Weight	≤15.0Kg
尺寸 (L*W*H) Size	418x194x180 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949



64V80F

# SUPERCAPACITOR (MODULE)

## 超级电容器 (模组)



### 基本参数 General Specifications

产品型号 Product Model	PLMC0080C0-0064R0A
标称容量 Nominal Capacitance	80F
标称容量公差 Nominal Capacity Tolerance	0%~+15%
标称电压 Nominal Voltage	64V DC
浪涌电压 Surge Voltage	68.4V DC
等效串联内阻 ESR	≤16.8mΩ
最大连续电流 (ΔT=40°C) Max. continuous current	75A
最大峰值电流 (1s) Max. Peak current (1s)	200A
漏电流 Leakage Current	6.0mA
单体规格 Cell Specifications	2.7V 2000F
模组配置 Module Structure	1P24S
最大储存能量 Max. Storage Energy	46Wh
质量能量密度 Mass Storage Energy	2.88Wh/kg
循环寿命 Cycle Life	1,000,000 cycles
防护等级 Protection Level	IP20

### 物理参数 Physical Parameters

重量 Weight	≤18.5Kg
尺寸 (L*W*H) Size	520x480x100 mm

### 温度范围 Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

### 认证&报告 Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949



160V5.8F

## SUPERCAPACITOR (MODULE)

## 超级电容器 (模组)

基本参数  
General Specifications

产品型号 Product Model	PLMC0006C0-0160R0A
标称容量 Nominal Capacitance	5.8F
标称容量公差 Nominal Capacity Tolerance	0%~+20%
标称电压 Nominal Voltage	160V DC
浪涌电压 Surge Voltage	168V DC
等效串联内阻 ESR	≤200mΩ
最大连续电流 (ΔT=40°C) Max. continuous current	13A
最大峰值电流 (1s) Max. Peak current (1s)	214A
漏电流 Leakage Current	≤35mA
单体规格 Cell Specifications	2.7V 350F
模组配置 Module Structure	60串
最大储存能量 Max. Storage Energy	20.6Wh
质量能量密度 Mass Storage Energy	3.4Wh/kg
循环寿命 Cycle Life	1,000,000 cycles
防护等级 Protection Level	IP30

物理参数  
Physical Parameters

重量 Weight	6.0±0.5Kg
尺寸 (L*W*H) Size	367x235x80mm

温度范围  
Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

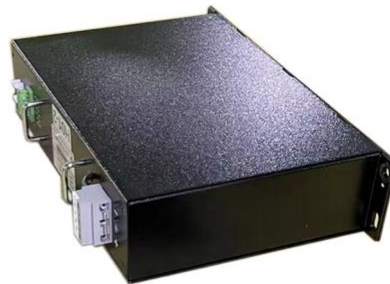




160V10F

## SUPERCAPACITOR (MODULE)

## 超级电容器 (模组)

基本参数  
General Specifications

产品型号 Product Model	PLMC0010C0-0160R0A
标称容量 Nominal Capacitance	10F
标称容量公差 Nominal Capacity Tolerance	0%~+20%
标称电压 Nominal Voltage	160V DC
浪涌电压 Surge Voltage	168V DC
等效串联内阻 ESR	≤150mΩ
最大连续电流 (ΔT=40°C) Max. continuous current	13A
最大峰值电流 (1s) Max. Peak current (1s)	368A
漏电流 Leakage Current	≤30mA
单体规格 Cell Specifications	2.7V 600F
模组配置 Module Structure	60串
最大储存能量 Max. Storage Energy	36Wh
质量能量密度 Mass Storage Energy	2.71Wh/kg
循环寿命 Cycle Life	500,000 cycles
防护等级 Protection Level	IP20

物理参数  
Physical Parameters

重量 Weight	≤12Kg
尺寸 (L*W*H) Size	428x90x300 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949

170V12.5F

## SUPERCAPACITOR (MODULE)

## 超级电容器 (模组)

基本参数  
General Specifications

产品型号 Product Model	PLMC0012C5-0170R0A
标称容量 Nominal Capacitance	12.5F
标称容量公差 Nominal Capacity Tolerance	0%~+20%
标称电压 Nominal Voltage	170V DC
浪涌电压 Surge Voltage	175V DC
等效串联内阻 ESR	≤200mΩ
最大连续电流 (ΔT=40°C) Max. continuous current	40A
最大峰值电流 (1s) Max. Peak current (1s)	276A
漏电流 Leakage Current	42mA
单体规格 Cell Specifications	2.7V 800F
模组配置 Module Structure	64串
最大储存能量 Max. Storage Energy	50.17Wh
质量能量密度 Mass Storage Energy	5.95Wh/kg
循环寿命 Cycle Life	1,000,000 cycles
防护等级 Protection Level	IP20

物理参数  
Physical Parameters

重量 Weight	≤8.4Kg
尺寸 (L*W*H) Size	528x270x90 mm

温度范围  
Temperature Range

工作温度 Operating Temperature	-40°C ~ +65°C
存储温度 Storage Temperature	-40°C ~ +70°C

认证&报告  
Certification & Reporting

产品认证 Product Certification	UN38.3, MSDS
合规性 Compliance	RoHS, REACH
公司认证 Company Certification	ISO9001, ISO14001 ISO45001, IATF16949