

# **Li-ion Rechargeable Battery Technical Information**

**Revision1.0  
2008.03.31**

<b>Cell Name</b>	<b>US18650GR</b>
Cell Type	Cylindrical
Model Number	US18650G6F
Sony Code	49797700

**Energy Business Group  
Sony Corporation**

## 1. General

### **1.1 Scope**

This specification shall be applied to Lithium-ion rechargeable battery named US18650G6F. US18650G6F utilized special graphite designed by Sony as anode material. The carbon material realizes high energy density and high safety. It also carries excellent load and temperature characteristic. On the top of that, structure change to increase active material volume brings more capacity enhancement. By applying two headed technology, 2200mAh capacity has been achieved in 18650 size.

### **1.2 Name and Code**

1.2.1 Cell Name : US18650GR  
1.2.2 Model Number : US18650G6F  
1.2.3 Sony Code : 49797700

### **1.3 Cell Shape and Weight**

1.3.1 Cell Shape : Cylindrical  
1.3.2 Size (with plastic tube) : Diameter 18.35mm max  
Length 65.10mm max  
1.3.3 Weight : 45.5g Average

### **1.4 Safety Regulation**

Sony acquired UL1642.

## 2. Performance

at room temperature, 3.0V cut off

Nominal Capacity (0.2C discharge)	2200 mAh 8.30Wh	average capacity 3.78V (average discharge voltage)
Rated Capacity (0.2C discharge)	2100mAh 7.85Wh	minimum capacity
Capacity at 0.5C	2155mAh 7.95Wh	average capacity
Capacity at 1C	2110mAh 7.55Wh	average capacity
Nominal Voltage	3.7V	
Internal Impedance	48mΩ	measured by AC1kHz
Cycle Performance	80 % of Initial capacity at 300 cycles	0.7A discharge

### \* Standard Charge Condition

Charge Method : constant current constant voltage  
Charge Up Voltage : 4.2 ± 0.05V  
Charge Current : 1.0A  
Charge Time : 4.5 hours charge  
Ambiance Temperature : 23°C