Lithium Ion Rechargeable Battery
Technical Information

Revision 0.1
20th Jan. 2015

Model Number  US18650VTC6
Cell Type       Cylindrical
Cell Name       US18650VTC6

Sony Energy Devices Corporation
Device Solutions Business Group / Sony Corporation
# 1. General

## 1.1 Name and Code
1.1.1 Model Number : US18650VTC6  
1.1.2 Cell Name : US18650VTC6  
1.1.3 Sony Code : TBD  

## 1.2 Cell Shape and Weight
1.2.1 Cell Shape : Cylindrical  
1.2.2 Size (with plastic tube) : Diameter 18.50mm max Length 65.20mm max  
1.2.3 Weight : 46.5g Average  

## 1.3 Safety Regulation
Sony will acquire UL1642.

## 2. Performance

<table>
<thead>
<tr>
<th></th>
<th>Nominal Capacity at 0.2C</th>
<th>Discharge 2.0V cut off at 23°C</th>
<th>Rated Capacity at 0.2C</th>
<th>Discharge 2.0V cut off at 23°C</th>
<th>Capacity at 1C</th>
<th>Discharge 2.5V cut off at 23°C</th>
<th>Capacity at 10A</th>
<th>Discharge 2.5V cut off at 23°C</th>
<th>Nominal Voltage</th>
<th>Internal Impedance</th>
<th>Cycle Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3130mAh 11.3Wh</td>
<td></td>
<td>3000mAh 10.8Wh</td>
<td></td>
<td>3007mAh 10.8Wh</td>
<td></td>
<td>2940mAh 10.5Wh</td>
<td></td>
<td>3.6V</td>
<td>12.8mΩ Typ.</td>
<td>60% Min. of Initial capacity at 500 cycles</td>
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<td>measured by AC1kHz</td>
<td>7.5,15A discharge</td>
</tr>
</tbody>
</table>

* Standard Charge Condition  
  Charge Method : constant current constant voltage  
  Charge Up Voltage : 4.2± 0.05V  
  Charge Current : 3.0A  
  Charge Time : 2.5h  
  Ambient Temperature: 23°C
Charge Characteristics (US18650VTC6)

Test Condition
Charge: 23deg.C, 4.2V, 3.0A (CC/CV), 2.5h
Discharge Load Characteristics (US18650VTC6)

Test Condition
Charge: 23deg.C, 4.2V, 3.0A (CC/CV), 2.5h cut
Discharge: 0.6A, 3.0A, 10A, 20A, 2.5V or 90deg.C cutoff
Discharge Load Characteristics (US18650VTC6)

Test Condition
Charge: 23deg.C, 4.2V, 2.5A(CC/CV), 2.5h cut
Discharge: 23deg.C, 0.5A, 2.5A, 10A, 20A, 2.0V or 90deg.C cut off
Temperature Dependence of Discharge Capacity (US18650VTC6)

Test Condition
Charge: 23°C, 4.2V, 2.5A (CC/CV), 2.5h cut
Discharge: -20°C to 60°C, 10A, 2.5V cutoff

Discharge Capacity / mA

Ambient Temperature during Discharge / °C
Temperature Dependence of Discharge Curves (US18650VTC6)

Test Condition
Charge: 23deg.C, 4.2V, 2.5A(CC/CV), 2.5h cut
Discharge: -20~60deg.C, 10A, 2.0V cutoff
Cycle Life Performance (US18650VTC6)
7.5A discharge

Test Condition
Charge: 23deg.C, 4.15V, 4A(CC/CV), 250mA cut
Discharge: 23deg.C, 7.5A, 2.5V cut off, R 30deg.Ctcut
Cycle Life Performance (US18650VTC6)
15A discharge

Test Condition
Charge: 23deg.C, 4.15V, 4A(CC/CV), 250mA cut
Discharge: 23deg.C, 15A, 90deg.C cutoff or 2.5Vcutoff, R 55deg.Ccut
Dimension with Plastic Tube: US18650VTC6

φ18.35 (Diameter of Top) +0.15, -0.20

(φ7.4)

65.0 ± 0.2

φ18.35 (Diameter of Body) +0.1, 0.2

(0.2)