


		<b>Conditions</b>	
<b>cell type:</b>	Li-Ion (LiCoO <sub>2</sub> )		
<b>cell size:</b>	18650		
<b>nominal voltage:</b>	3.7 V		
<b>capacity</b>			
nominal:	4500 mAh	discharge at 0.2C	
minimum:	4500 mAh	discharge at 0.2C	
	3600 mAh	discharge at 1C	
		ta: 20°C; EV(Discharge End Voltage): 2.2.75V	
<b>discharge</b>			
max. continuous discharge current:	6000 mA	ta: 0...45°C	
		<b>important:</b> avoid cell temperature above 60°C	
discharge end voltage:	2.75 V	(recommended)	
		<b>important:</b> avoid long time deep discharge	
<b>charge</b>			
charging method:	CC - CV (Constant Current - Constant Voltage)		
initial charge current:	2250 mA	at standard charge	
	4500 mA	at rapid charge	
charge end voltage:	4.2 V	± 50mV	
charge cut off			
by time:	3,5 h	at standard charge	
	2,5 h	at rapid charge	
by current drop:	22 mA	(0.01C)	
<b>internal resistance:</b>	≤ 20 mOhms	at 1kHz, sine wave measurement according to IEC 896-2	
<b>safety board protection functions</b>			
overcharge cut off voltage:	4.25 V	± 25mV	
deep disch.cut off voltage:	2.5 V	± 62mV	
discharge cut off current:	8500m A	± 2000mA	
short circuit protection:	yes		
<b>life time expectance</b> (C>70% of min. capacity)	≥ 300 cycles	at 0.5C charge/discharge rate	
<b>self discharge:</b>	≤ 5 %/month	at 20°C	
	≤ 10 %/month	at 30°C	
	≤ 20 %/month	at 40°C	
<b>ambient temperature range:</b>	0...45 °C	charge	
	0...60 °C	discharge	
	- 20...25 °C	storage max. 1year	
	- 20...45 °C	storage max. 3months	
preferred charge state for long time storage:	30...50%		
<b>mechanical specifications</b>			
cell dimensions (incl. sleeve)			
width:	37 ± 1 mm		
length:	65 ± 2 mm		
width:	18 ± 1 mm		
weight:	approx. 100 g		
wire diameter:	AWG22		
wire length:	120mm	black red	

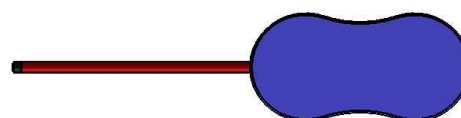
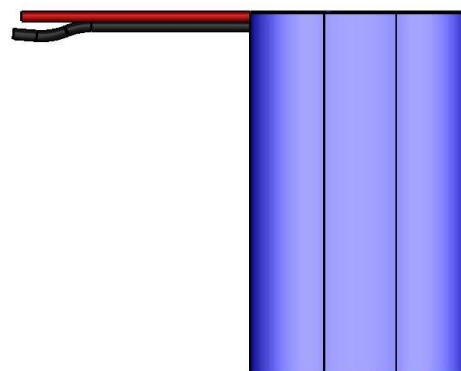
**Label Design**


**AN-MANN®**  
 Li-Ion Rechargeable 18650 1S2P  
 Nominal voltage: 3.7V  
 Max. charge voltage: 4.2V  
 Nominal Capacity: 4500mAh  
 Minimum Capacity: 4500mAh  
 Recommended charge current: 2250mA  
 Energy: 16.6Wh

**Safety advice for Li-Ion batteries**  
 Do not crush, heat, incinerate, short circuit, dismantle or immerse in any liquid or it may vent or rupture. Follow charging instructions.  
 Do not charge below 0°C  
 Discharge -20°C to +60°C  
 Tested and approved to UN38.3

part. no.: xxxx-xxxx 44/11



	<b>ANSMANN Specifications for model:</b>	<b>Li - Ion Battery 3.7V 4500mAh with safety board inside</b>
	data sheet no. / part no.	2447-3005
	Version no.	V0
	author / date	Eisenreich / 01.12.11