

## BATTERY SPECIFICATION

No. 800052

Solihull, UK +44 (0) 845 602 5562 info.uk@enix-energies.com Originated by: N Scholey

Page 1 of 3.

Issue No: 2

Date: 22<sup>nd</sup> September 2005

Issue Date: 30/09/05

Nominal Ratings: 7.5 V, 2.2 Ah Composition: 2S1P ICR-18650H

NB: Actual voltage and capacity in use will be affected by various factors, including temperature, discharge rate, charge rate and method (if applicable), end point voltage, history (e.g. past use, storage) etc.



Mechanical Details:	NB: All dimensions are nominal. Sleeved packs are not weather proof and are designed to be installed in a protective case or within equipment. They are not intended to be handled by the end user of the equipment and will normally require hard cases before they can be repeatedly inserted and removed.			
Length:	70.0 mm	Weight:	100 g	
Depth:	37.5 mm	Covering:	PVC Heat Shrink	
Height:	19.0 mm	Labelling:	Standard	
Leads:	120 mm UL1007 24AWG	Connector:	None	

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Page 2 of  $\overline{3}$ .

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<b>Protection Devices:</b>	NB: These devices are designed to protect the pack in the event of control circuit failures e.g. charger failure. They must not be used a main means of charge/discharge control. Protection circuits have response times in the order of a few milliseconds.			
Electronic Circuit	PLH-2010	Polyswitch	SRP350	
Fuse	None	Bypass Diode:	None	
Thermal Fuse	None	Other:	None	

<b>Electrical Details:</b>	UNIT	NOMINAL	MINIMUM	MAXIMUM
Charge Current	A	1.0	0.1	2.0
Charge Voltage	V	8.4	8.3	8.5
Charging Temperature	°C	+20	0	+45
End of charge detection:				
By timer <sup>1</sup>	hours	3		
By low current	mA	100		
Discharge Current <sup>2</sup>	A	0.4		3.0
Cut-off Voltage <sup>3</sup>	V	6.0	5.0	
Discharge Temperature <sup>4</sup>	°C	+20	-20	+60

#### Notes:

<sup>&</sup>lt;sup>4</sup> The battery may need to be derated at high and low temperatures. In particular, low temperatures will increase internal resistance and reduce the capacity, which can be recovered, particularly at high currents. High temperatures will increase self discharge and reduce battery life. See our website for more information.

Storage:	UNIT	NOMINAL	MINIMUM	MAXIMUM <sup>5</sup>
Temperature	°C	+20	-20	+30
Duration	months			12
Store at 50% state of charge for optimum life. <b>Do NOT store in a discharged condition</b> .				

<sup>&</sup>lt;sup>5</sup> Occasional short excursions to +60 possible. Prolonged storage at high temperatures will dramatically shorten life

#### **OUTLINE SAFETY WARNING: USE ONLY WITHIN THE ALLOWED PARAMETERS.**

Do not short circuit or over-load the battery. Charge only using an approved charger designed specifically to charge this battery. Do not heat above maximum temperatures indicated. Never crush, mutilate, puncture or abuse the battery. Do not dismantle the pack or disable any of the protective devices or circuits. DO NOT USE THE BATTERY IF YOU SUSPECT IT MAY BE FAULTY OR DAMAGED.

**Related documents:** You should also consult the following documents:

1) ICR-18650H Cell Data Sheet. 2) Material Safety Data Sheet.

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The timer should start at the start of the constant voltage phase of charging

<sup>&</sup>lt;sup>2</sup> Batteries fitted with electronic protection circuits cannot normally deliver current pulses above the maximum figure, since the circuit has short response times.

<sup>&</sup>lt;sup>3</sup> This is the voltage at which the pack is considered discharged. If your equipment continues to discharge the battery below the minimum figure indicated, the battery may be damaged and/or its life reduced. If you equipment ceases to function at a voltage above the maximum figure, you may not recover the full battery capacity.



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Page 3 of 3. Issue No: 2

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# UN T1-T8 Tested



The type 800052 battery has passed the UN T1-T8 tests and may be shipped as excepted from these regulations. Lithium equivalence  $1.32~\rm g$ .

New transport regulations affecting lithium, lithium-ion and/or lithium polymer batteries came into force during 2003 and 2004.

These regulations require that all lithium, lithium-ion and lithium polymer cells and batteries must pass a number of UN tests before they may be transported by road, rail, sea or air. In addition lithium, lithium-ion and lithium polymer cells and batteries containing more than certain limits of lithium or "lithium equivalence" must be shipped as Class 9 hazardous goods. For cells and batteries the classification is UN3090. Batteries below these limits may be transported as non-hazardous. There are certain exceptions.

Disclaimer: We do not claim to be experts in with regard to transport regulations, shipping, packing etc. Users and prospective users of lithium, lithium-ion and/or lithium polymer cells and/or battery packs should consult a qualified person for definitive information, e.g. a Dangerous Goods Safety Advisor. Enix Energies, its owners, directors, employees and servants cannot accept any responsibility for the accuracy of the above information.