

# LITHIUM CELL/BATTERY TEST SUMMARY AND SUPPLIER INQUIRY

IN ACCORDANCE WITH SUB-SECTION 38.3  
OF MANUAL OF TESTS AND CRITERIA

N/A = Not Applicable

<b>1. Name of cell / battery</b>	
LINDHAUS/Mod. Li.36/6 36V/6.0 Ah/10S2P	

<b>2. Manufacturer of cell / battery</b>	
Name	AKKU POWER GMBH Batteries
Address	Paul-Strähle-Straße 26, 73614 Schorndorf, Germany
Phone	+49 7181 97735-0
Email	info@akku-power.com
Website	akku.power.com

<b>3. Test laboratory of cell / battery</b>	
Name	SLG Prüf- und Zertifizierungs GmbH
Address	Burgstädter Str. 20, 09232 Hartmannsdorf, Germania
Phone	0372 73230
Email	service@slg.de.com
Website	slg.de.com

<b>4. ID-number and date</b>			
Unique test report identification number	1093-16-MM-16-PP002	Date of test report	12/10/2016

## DESCRIPTION OF CELL / BATTERY

<b>5. Mark the type of cell/battery with an "o"</b>			
<input type="radio"/>	Lithium ion cell	Lithium metal cell	<input type="radio"/>
<input checked="" type="radio"/>	Lithium ion battery	Lithium metal battery	<input type="radio"/>
<input type="radio"/>	Lithium hybrid battery		

<b>6. Parameters</b>	<b>Cell</b>	<b>Battery</b>
Mass in gram (g):	47g	1260g
Lithium ion: Indicate watt-hour rating (Wh):	10,8Wh	216Wh
Lithium metal: Indicate lithium metal content in gram (g):		
Lithium hybrid: Indicate lithium metal content in gram (g) and watt-hour rating (Wh):		g Wh

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Name of cell/battery (taken from field 1)

LINDHAUS/Mod. Li.36/6 36V/6

7. Physical description of cell / battery

Small , rectangular plastic case

8. Model numbers

025350000 or  
Battery installed in equipment

## TESTS AND RESULTS

9. List of tests conducted and results - Mark N/A, pass or fail with an "●"	N/A	pass	fail
T1 - Altitude simulation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T2 - Thermal Test	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T3 - Vibration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T4 - Shock	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T5 - External Short Circuit	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T6 - Impact / Crush	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
T7 - Overcharge	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T8 - Forced Discharge	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Reference to assembled battery testing requirements

N/A

11. Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto

UN Manual of Tests and Criteria , Part III, Sub-Section 38.3, Rev. 5 A2

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Name of cell/battery (taken from field 1)

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## ADDITIONAL SUPPLIER INQUIRY

<b>12. Quality management system for manufacturing cells / batteries</b> Does the manufacturer of the cell/battery manufacture the products based on a documented quality management system according to transport regulations?	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>
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<b>13. Are the following parameters exceeded?</b> Lithium ion cell: more than 20 Wh Lithium ion battery: more than 100 Wh Lithium metal cell: more than 1 g Lithium Lithium metal battery: more than 2 g Lithium Lithium hybrid Battery: more than 1,5 g Lithium and/or more than 10 Wh	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>
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<b>Check point 14 – 16 need to be answered when 13 has been ticked "YES":</b>						
<b>14.</b> Does each cell / battery incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>		
<b>15.</b> Is each cell / battery equipped with an effective means of preventing external short circuits?	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>		
<b>16.</b> Is each battery containing cells or series of cells connected in parallel equipped with effective means as necessary to prevent dangerous reverse current flow (e.g. diodes, fuses, etc.)?	<input type="radio"/>	N/A	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>

<b>17. Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion cells/batteries and lithium polymer cells/batteries</b>				
State of Charge (SoC) max. 30 %	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>

## CELLS/BATTERIES INSTALLED IN EQUIPMENT

<b>18. Check point 18 needs to be answered when the cells / batteries are installed in articles:</b>						
<b>18.a) Only button cells enclosed?</b>	<input type="radio"/>	YES	NO	<input checked="" type="radio"/>		
<b>18.b) Number of enclosed cells (other than button cells)/batteries per equipment</b>						
Enclosed cells per equipment	Enclosed batteries per equipment		1			
<b>When the equipment is intentionally active/switched on during transport e.g. data loggers:</b>						
<b>18.c) Confirmation that no dangerous amount of heat is emitted from the equipment</b>	<input type="radio"/>	N/A	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>
<b>18.d) Confirmation that the equipment when transported by air fulfills the defined air transport standards for electromagnetic radiation according to DO-160</b>	<input type="radio"/>	N/A	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>

<b>19. Place, Date</b>	<b>20. Title, Surname, First name</b>	<b>21. Company stamp and signature</b>
Padova, 10/01/2020	Michele Massaro, Legal Representative	 Via Bellini, 22 - 35127 PADOVA IT Tel. +39 049 8700805 Fax +39 049 8700805 E-mail: info@lindhaus.it

