



Lithium-Battery Pack with protection electronics (PCM single cells monitoring), protects the battery against overcharge, deep discharge and short circuit, Implemented cell balancing, with interface for service purposes (number of cycles, capacity, temperature, etc.)

Connectors:

Main line: cable with PP-connector + Red and - Black
Interface connector: waterproof round connector

Applications

Automotive
Industrial
Sport
Medical
and others



Pack Specifications

Nominal Voltage	25.9 V
Capacity (Nominal)	29000 mAh $\pm 6\%$.
Energy	751 Wh
Weight	3660 grams $\pm 50g$.
Size, Max. (L x W x H) mm	230 x 120 x (80 ± 1)

Operating Specifications

Operating Voltage	21.0 V to 29.4 V
Charge Voltage	(Max. 29.40 V)
Discharge End Volt.	21.0V
Operating Temperature:	
Discharge	-20°C to 50°C
Charge	0°C to 45°C
Max. Discharge Current	27,5A (continuous) 45 A (Peak)
Max. Charge Current	27,5A @ (10°C-45°C)

Storage Specifications

Storage Temperature	1 year : -20~25°C(1*) 3 months : -20~45°C(1*) 1 month : -20~60°C(1*)
Rh: (0% ~ 75%)	
Relative humidity should be less than 75%Rh	

Note (1): If the cell is kept as ex-factory status ($\leq 30\%$ of charge), the capacity recovery rate is more than 80%.

Standard charging method

0.5C CC (constant current) charge to Max. 29.40V, then CV (constant voltage Max. 29.40V) charge till charge current decline to $\leq 0.02C$

Transportation

The transport of this battery should be noted that this is a lithium-Ion battery (dangerous goods class 9 / UN3480 / packing group II, ADR / RID, IATA DGR, IMDG). During transport, do not subject the batteries or the box(es) to violent shaking, bumps, rain and direct sunlight. Keep the battery(s) at a half-charged state.

Care and safety recommendations:

Never open, short circuit or put in fire. Do not install backwards. Avoid short circuit with metal objects.

ATTENTION:

Please pay attention to following recommendations:

1. **Recharge batteries immediately after receipt!**, the batteries are delivered with low capacity ($< 30\%$) according to IATA DG Regulations!
2. Charge the batteries to the recommended value before storing them for a long time: State Of Charge between 50% ~ 70% depending on the storage time, Store the battery in a dry place, Temperature (0° ~ +25°C), relative humidity should be less than 75% Rh.
3. Please fully charge the batteries before using! Use only the battery charger specified for this battery type.
4. Do not leave battery in charger over 24 hours.
5. Always avoid deep discharge of the battery.
6. Avoid exposure to high temperatures.
7. Do not disassemble or modify the battery, may cause the battery to generate heat, explode or ignite.
8. Dispose properly used batteries. Dispose it according to the applicable recycling regulations. Contact your city recycling coordinator. Thank you

NOTE:

Information and contents in this datasheet are for reference purpose only. They do not constitute any warranty or representation and are subject to change without notice.

Overcharge/Overdischarge/Overcurrent Safety Circuits:

The controller IC measures the voltage for each cell (or for each parallel battery block) and shuts off a control switch to either prevent overcharging (if the voltage exceeds the specified voltage range) or to prevent overdischarging (if the voltage falls below the specified voltage range). Moreover, the voltage of the control switch is measured on both ends and in order to prevent overcurrent, control switches are shut off if the voltage exceeds specifications.

• The Functions of the Safety Circuits (typical functions)

The voltages listed below are typical values and are not guaranteed. The charge voltage varies according to model number.

1. The Overcharge Safety Function

The charge stops when the voltage per cell rises above 4.25 ± 0.05 V.
The charge restarts when the voltage per cell falls below 4.10 ± 0.05 V.

2. The Overdischarge Safety Function

The discharge stops when the voltage per cell falls below 2.50 ± 0.08 V.
The discharge restarts when the voltage per cell rises above 3.0 ± 0.1 V.

3. The Overcurrent Safety Function

The discharge is stopped when the output terminals are shorted. The discharge restarts when the short is removed.

Attention: Please fully charge the batteries before using!!!



ATTENTION! Recharge batteries immediately after receipt:



Due to the new IATA Dangerous Goods Regulations since April 2016, the state of charge condition for air transport must not exceed 30% of the nominal capacity!

If you receive a battery pack with airfreight with 30% charge and it will be sent by air again after storage, the state of charge 30% (this corresponds approximately to an idle voltage for this Battery-pack of 24.70V to 25.00V) must be checked every 2 months and recharged according to 30%.

NOTE:



**CE-KONFORMITÄTSERKLÄRUNG
CE-DECLARATION OF CONFORMITY**



Wir **Accu Power** Forschungs- Entwicklungs- und Vertriebsgesellschaft m.b.H.
 We Pirchaeckerstrasse 27, A-8053 Graz, AUSTRIA




**erklärt in alleiniger Verantwortung, dass folgendes Produkt:
 Hereby certifies on it's sole responsibility that the following product:**

Produkt / Product: [Lithium Ion Rechargeable Battery Pack 7S10P ICR18650](#)

Model No.: [APAVL 7S10P](#)

auf das sich diese Erklärung bezieht, mit folgenden Richtlinien bzw. Normen
 übereinstimmt:

*Which is explicitly referred to by this Declaration meet the following directives and
 standard(s)*

<p>Safety:</p> 	<p>UN38.3 Norm contains criteria and electrical, mechanical and thermal tests for the safe transport of Li-ion batteries.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Transportation Safety Test passed for:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> By Air Transport <input checked="" type="checkbox"/> by Sea <input checked="" type="checkbox"/> Road </div>  </div> <p><i>The tests are in part very sophisticated and reveal a certain robustness and basic safety of the system. Only by passing these tests and receiving this certificate, Li-ion-batteries are allowed to be transported.</i></p>
<p>EMC Emission</p>	<p>EN61326-1 : 2013 This part of IEC 61326 specifies requirements for immunity and emissions regarding electromagnetic compatibility (EMC) for electrical equipment, operating from a supply or battery of less than 1 000 V AC or 1 500 V DC or from the circuit being measured. Equipment intended for professional, industrial-process, industrial-manufacturing and educational use is covered by this part.</p> <p>EN 55011, Class B, Group 1 EN61000-4-2; EN61000-4-3; EN61000-4-6</p>

RoHS Richtlinie 2011/65/EU / RoHS directive 2011/65/EU

CE-Kennzeichnung auf dem Produkt:
 CE marking on product:



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(Ing. Issam Al-Abassy, Qualitätsbeauftragter)