Pack Type: EX-4AP7S13P-72A

Specifications

AccuMotion® Extender Lithium-Ion Rechargeable Unit

Portable Energy Supplier

Connector:
Charge / discharge sockets, LEMO type EGG.4B.306.CYM with push-pull locking
Interface socket, LEMO type EGG.1B.306.CYM with push-pull locking
Lithium-Battery Pack with protection electronics (BMS single cells monitoring), protects the battery against overcharge, deep discharge, and short circuit,
Implemented cell balancing, with BMS-interface for service purposes (number of cycles, capacity, temperature, etc.)

Applications

- Testing equipment
- Industrial Robot
- Automotive
- Military
- Medical
- and others

Pack Specifications	
Nominal Voltage	25.9 V
Capacity (Nominal) @0.5C	150.8 Ah ±6%.
Energy	3905 Wh
Weight	29.6 kg. ±500g.
Size, Max. (L x W x H) mm	499x x 394 x 192 ±6

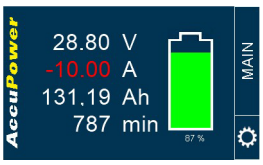
Operating Specifications	
Operating Voltage	21.0 V to 29.4 V
Charge Voltage	(**Max**. 29.4 V) ±0.6V
Discharge End Volt.	21.0V
Operating Temperature: Discharge Charge	 -20°C to 50°C - 10°C to 45°C
Max. Discharge Current	72A @ (-10°C-55°C) 100 A ±5A (Peak)
Max. Charge Current	72A @ (-10°C-45°C) 100 A ±5A (Peak)

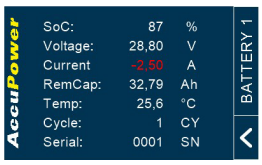
Storage Specifications	
Storage Temperature Rh: (0% ~ 75%) SoC: *State-of-Charge* ≥ 70%	1 year : -20~25°C(1*) 4 months : -20~45°C(1*) 1 month : -20~60°C(1*)

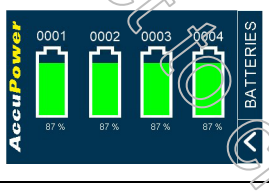
Note (1): If the cell is kept as ex-factory status (≥ 30% of charge), the capacity recovery rate is more than 80%.

Embedded battery management with data monitoring

The interface communication enables the monitoring of the battery data. both single batteries and whole groups. Safety on & off switch function. Lateral fastening rails for universal fastening options (e.g. tension belt, etc.).
An optional external LCD touch display ensures an optimal and clear presentation and easy-to-read all important battery data. The AccuMotion® Extender enables, for example, the reading of SoC (State of Charge) in percent, the actual charge or discharge current and battery voltage, number of cycles, remaining capacity as well as individual and group capacity, battery temperature and serial numbers, etc.







Cycle Characteristic:

100% DOD	appx.	500 cycles
80% DOD	≥	700 cycles
50% DOD	≥	1200 cycles
30% DOD	≥	2200 cycles

This applies to use under optimal conditions.
The residual capacity ≥ 80% of the nominal of the nominal capacity at the 0.2C rate and standard Operating conditions.

In general, the aging of the batteries is accelerated with a higher C-rate, Temperature and an increasing the DOD as well as SOC-value. Our research has shown that the SOC value has a major influence on aging, with higher C values in the lower SOC values even causing less aging than the lower C values in the higher SOC values.

Bas. 01/22

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.

Standard charging method

0.5C CC （constant current） charge to Max. 29.4V, then CV (constant voltage Max. 29.4V) charge till charge current decline to ≤ 0.02C

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 over discharging (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 4.30 ± 0.05 V.
The charge restarts when the voltage per cell falls below 3.90 ± 0.05 V.

2. The Overdischarge Safety Function

The discharge stops when the voltage per cell falls below 2.95 ± 0.05 V.
The discharge restarts when the voltage per cell rises above 3.35 ± 0.05V.

3. The Overcurrent Safety Function

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

Transportation

Transport according to the current regulations: ADR / RID / ADN / IATA / IMDG
Class: 9 / UN-Number: UN3480
Shipping name: Lithium-ion batteries
Environmental hazards / Marine pollutant: No

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. Always avoid Deep discharge of the battery
2. Charge the battery before longer Storage.
3. Use only the battery charger specified for this battery type.
4. Do not leave battery in charger over 24 hours.
5. Keep it in a cool and dry place.
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.

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% must be checked every 2 months and recharged according to 30%.