ASCEND™
POWERPACKS PVT LTD

11.1V, 2.6Ah
LITHIUM BATTERY

RELIABLE POWER. STABLE CONNECTION.

USED FOR ALL TELECOM AND IT APPLICATIONS

HIGH PERFORMANCE
Consistent & Reliable Power

LIGHTWEIGHT & COMPACT
Slim Design, Easy to Install

LONG CYCLE LIFE
≥2000 Cycles

BUILT-IN PROTECTION
Overcharge, Overdischarge, Overcurrent & Short Circuit

WIDE TEMPERATURE RANGE
Reliable Performance in All Conditions

WIDE APPLICATION
Used for All Telecom and IT Applications

OUTPUT CONNECTOR

1 PIN CONNECTOR

NOMINAL VOLTAGE	CAPACITY	CONFIGURATION	CHEMISTRY	ENERGY	CYCLE LIFE	OPERATING TEMP.	APPLICATION
11.1V	2.6Ah	3S-1P	NMC	28.86Wh	≥2000 Cycles	-20°C to 60°C	All Telecom & IT Applications

NMC Battery

Technical Data Sheet

Battery Rating: 11.1V, 2.6Ah

Battery Model: AS-NMC-01110026

Prepared By	Checked By	Approved By

1. Scope:

This specification describes the technical parameters, testing standard, storage, handling and precautionary instructions for the **Lithium Rechargeable Battery** manufactured and supplied by **Ascend Powerpacks Pvt Ltd.**

2. Cell details:

Cell chemistry	NMC
Cell Type	Cylindrical
Cell nominal voltage	3.7V
Cell minimum voltage range	2.5V
Cell maximum voltage range	4.2V
Standard discharging current	1C
Max discharging current	3C
Standard charging current	C/3
Max charging current	1C
Cell capacity	2.6Ah
Cell physical dimensions	18650
Cell Internal Resistance	≤26mΩ
Cell Manufacture Name	DMEGC

3. Basic Characteristics:

Battery nominal Voltage	11.1V
Battery nominal Capacity	2.6Ah
Total Energy	28.86Wh
Operating life/ Life cycles projected	≤800 Cycles
Operating temperature range	-10°C to 60°C
Storage temperature range	-20 to 25°C
Weight of the battery	Approx 160g
Battery Output Connector & wire lengths	4-PIN 65mm

4. Battery pack dimensions:

Battery pack dimensions (LXWXH)	**55Lx22Wx68H (±1 mm tolerance)**

5. Charger details:

Recommended charger voltage (VDC)	12.6V
Nominal charging current of charger (A)	0.8A

6. BMS Details:

Battery Configuration	3S
Single cell volt-high protection	4.20 ±0.05V
Single cell volt-high protection release	4.15 ±0.05V
Single cell volt-high protection delay	1sec
Single cell volt -low protection	2.6 ±0.1V
Single cell volt- low protection release	2.8 ±0.1V
Single cell volt -low protection delay	1sec
Total over charge volt-protection	12.6 ±0.05V
Total over charge volt-protection release	12.45 ±0.05V
Total over charge volt-protection delay	1sec
Total over discharge volt-protection	7.8 ±0.1V
Total over discharge volt-protection release	8.4 ±0.1V
Total over discharge volt-protection delay	1sec
Standard charging current	1A
Standard discharging current	1
Over current protection in charging	>7A
Over current protection in charging delay	1sec
Over current protection in discharging	>7A
Over current protection in discharging delay	1sec
Short circuit delay	100-500us
Charging high temperature protection	NA
Charging high temperature protection release	NA
Charging high temperature protection delay	NA
Discharging high temperature protection	NA
Discharging high temperature protection release	NA
Discharge high-temperature protection delay	NA
Current consumption	6uA
Balance function	Active
Buzzer enabled	No
NTC	No

7. Communication:

Bluetooth enabled	No
Communication method	.....
Baud rate	.....
IoT Integrated	.....

8. Safety performance:

Test Name	Test Procedure	Requirements
Short circuit test	The battery is to be short-circuited by connecting the positive and negative terminals of the battery pack directly.	No fire, no explosion.
Over-charge protection test	The Battery is permitted to charge until the BMS ends the charge.	The charging is successfully terminated by BMS when any one of the cell reaches its upper limit 4.2V
Over-current protection test	The Battery is made to charge and discharge more than the rated current	BMS terminates to charge and discharge when it exceeds the rated current >7A.
Over-discharge protection test	The Battery is permitted to discharge until the BMS ends the discharge.	The discharging is successfully terminated by BMS when any one of the cell reaches its lower limit 2.6V
Over -temperature protection test (Applicable only for BMS with NTC)	Battery is made to charge until it reaches the specified temperature.	NA
	Battery is made to discharge until it reaches the specified temperature.	NA
Vibration test (based on application)	As per AIS 156 NORMS PHASE II	NA
IP (Ingress protection) (If required by customers)	As per AIS 156 NORMS PHASE II	NA

CAUTION!

1. Charging the Battery:

- Always use the dedicated/recommended charger supplied by Ascend Powerpacks Pvt. Ltd and adhere to the specified charging conditions.
- Do not connect the battery directly to an electric outlet or cigarette lighter charger.
- Avoid charging or discharging the battery in environments with temperatures exceeding 60°C.

2. Proper Usage:

- Use the battery only for the application it is meant for.
- Do not incorrectly place the battery in a device, ensure the (+) and (-) terminals are properly aligned.
- Avoid using a battery that shows scratches, swelling, or damage.

3. Environmental Precautions:

- Do not expose the battery to extreme temperatures. Keep it away from fire, direct sunlight.
- Do not immerse, throw, or wet the battery in water.
- Store the battery in a cool, dry place.

4. Physical Handling:

- Do not disassemble, modify, or solder the battery.
- Avoid piercing the battery with sharp objects, hitting it with a hammer, stepping on it or dropping it.
- Do not short-circuit the (+) and (-) terminals with metal objects like hairpins, coins, screws etc.

5. Storage and Disposal:

- Store batteries out of reach of children to prevent accidents.
- When disposing of a battery, ensure it is non-conducting by applying insulation tape to the (+) and (-) terminals.

6. Transportation:

- Do not subject the battery to violent shaking, bumps, rain, and direct sunlight during transport. Keep the battery half-charged (i.e., SOC should be 50%).

7. Temperature Guidelines:

- Use the battery within the following temperature ranges:
  1. Charge temperature range: 0°C to 60°C
  2. Discharge temperature range: -20°C to 60°C
- Avoid exceeding these ranges to prevent damage or hazardous conditions.

8. General Safety:

- Keep the battery away from objects or materials with static electric charges during charging, usage, and storage.
- If the battery terminals become dirty, wipe them with a dry cloth before use. Do not use wet cloth.
- Before using the battery or charger, thoroughly read the caution and handling instructions.
- Strict supervision is required if the battery is handled by children of specified age group.

9. Long-term Storage:

- A Fully charged Battery should not be stored for longer periods as it may deteriorate Battery Capacity. If the user doesn't want to use Battery for a long time always charge the Battery pack to 50% for better performance. Never leave the fully discharged battery pack for more than a day.

By following these guidelines, you can ensure the safe and effective use of your battery while minimizing risks of damage or injury.

Important!

* We recommend charging the battery to 50% of its total capacity every 15 days after receiving it. Keep the voltage between 11.1V and 11.5V. Failure to do so may result in reduce battery performance, and **Ascend Powerpacks Pvt Ltd** will not be responsible for any issues related to this battery.