Technical Datasheet
Li-ion Battery pack

Model	2S3P5SWS-XX
Revision	0
Date	10/12/2023
Cell part number	Panasonic-NCR18650BD
Cell Capacity	Rated -2980 Typical -3180mAh
Customer	Bhoomi Process Management Pvt. Ltd.

1. Nominal Specifications:

SL#	Parameter	Specification
1	Nominal voltage	7.2V
2	Rated capacity	9000mAh
3	Charging voltage (max)	8.4V
4	Charging current (std).	1800mA
5	Charging current (max)	3000mA
6	Continuous Discharge current Max	2.5A
7	Pulse Discharge current	6A < 5Sec
8	Over current protection	8A+/-1A
9	Storage Voltage	7.2V to 7.6V
10	Recharge Voltage	6.4V
11	Short circuit Protection Short the Positive and Negative Terminals. No Fire, No damage. Short removed it will reset automatically.	Provided
12	Connector	Molex -5264 series 2circuit -2.5mm pitch - output wire length-100mm (without connector)
13	Operating Temperature	Charge 10 to 45°C Discharge -20 to 60°C
14	Cycle life	500cycles at ≤80% Capacity
15	Weight	300Grams
16	Dimension (Max)	20x70x112mm
17	Package	Shrink wrap Enclosed

2. Protection Circuit Module (PCM) Parameters

Sl No.	Parameter	Specification
1	Over charge cut off voltage	8.4V+/-50mV
2	Over dis-charge cut off voltage	5.4V +/-200mV

3. Charging Procedure:

The charger voltage shall be set at **8.3V.** The Battery should be charged using this charger with a constant current of **1800mA** (max) till the battery voltage rises to **8.3V.** Then the voltage shall be maintained constant, and the current begins to reduce. The charging process shall be terminated when the charging current reduces to **100mA**.Please refer the below charging profile for your reference.

CHARGING PROFILE:

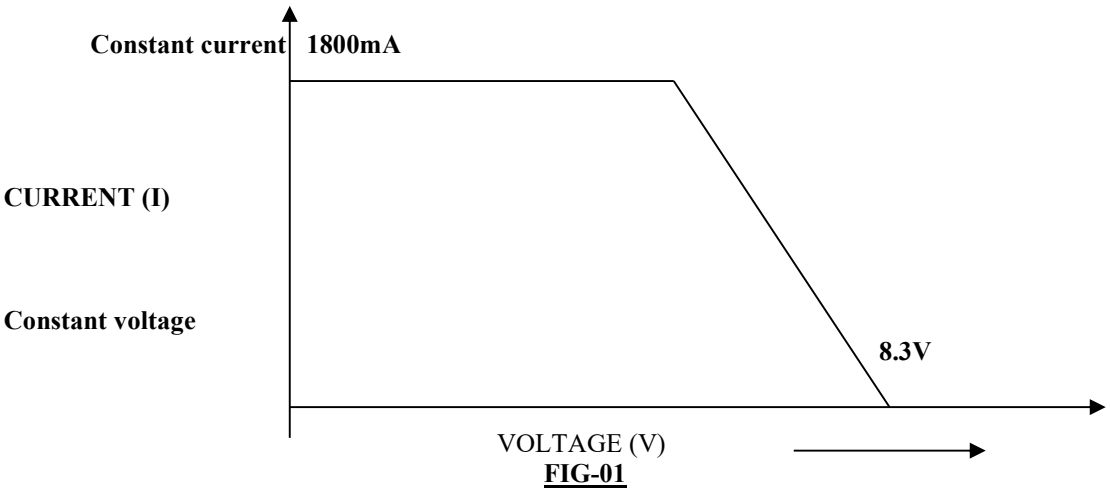

FIG-01

4. Storage Temperature & Humidity condition:

1. Storage temperature and Humidity. : -20deg. C to +35deg.C Less than 65% Humidity
2. Long Period storage. : Recommended not to store beyond three months.

5. Li-ion Battery Handling Precautions

1. The battery shall be operated between 8.3V to 6.4V for best performance.
2. Do not store the battery without use for more than 3 months (from the date of shipment). If so, there will be damage done on the life and performance of the battery.
3. The battery packs shall be stored in a "40% state of charge". If the battery is stored in "full charge" state or "Full discharge" state, there can be serious damage on the battery performance and life of the battery pack.
4. Store the batteries in a cool and dry place with an ambient temperature between -20 deg. cel and +35 deg. cel for best performance.
5. The ambient temperature while charging shall not exceed +45 deg.cel, If this happens, the battery life is likely to decrease in terms of number of charge-discharge cycles.
6. The charging and discharging current shall not exceed that mentioned in our technical datasheet.
7. Do not expose the battery to excessive heat (>60 deg. cel) or direct sunlight. This can lead to serious damage to the battery and also can lead to serious damage.
8. Do not immerse the battery in water.
9. Do not discard the used battery packs in fire. This can lead to serious damage.
10. Do not expose the battery to high impact which can seriously damage the battery pack.
11. Do not interchange the polarity of the connecting leads. This can cause reverse current flow and permanently damage the battery.
12. Do not expose this battery to very high frequency vibrations (>KHz/MHz). This can have serious damage on the battery life.
13. Do not disassemble or modify the battery. The battery pack is equipped with built in protection / safety module. Should this module be damaged or modified, the battery can leak acid, emit smoke and also seriously damage the battery.
14. While transportation, the battery is to be removed out of the equipment (disconnected) and packed separately in an impact free packing.
15. Do not use the battery in a high static energy environment, which can damage the built in protection module.
16. Use the charger which is specifically designed for this equipment. Use of Spurious chargers can lead to battery overheating and serious damage.
17. Do not pierce the battery pack with a nail or sharp objects, strike it with a hammer, or step on it. Otherwise, the protection module in the battery pack can get damaged, deformed or short circuited, which can lead to over-heating, smoke emission.
18. Do not connect this battery pack to any electrical outlet, cigarette lighter point of a vehicle, etc. This can lead to over current, overheating.
19. Do not transport or store the battery together with metal objects. This can lead to short circuiting of the battery leading to overheating.
20. Do not connect Multiple Li-Ion Batteries in Series OR Parallel. This will damage the battery packs.