



36V 20Ah Portable Lithium-Ion BATTERY Pack

Product Data Sheet



MANUFACTURED BY

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PPC3620N
36V 20Ah LI-ION BATTERY PACK

BATTERY PACK DESCRIPTION

- Pacto Power's 36V 20Ah portable battery pack is a compact, safe and economical Li-Ion battery pack. This standalone battery pack is designed for Electric Vehicle (Bike and Scooty) with high power NMC Li-Ion Cells. No additional equipment is required for safe operation of battery pack.
- In extreme operating conditions, BMS disconnect battery from the system. This ensure safe operation and protect the battery pack against short circuits, over-charge, over-discharge, over current and over temperature.
- This Li-Ion battery pack is maintenance free, and has a longer run time with a shorter recovery time than equivalent lead acid battery packs. It weighs 70% less and takes 60% less space than equivalent lead acid battery packs, providing increased range product compatibility.

BATTERY PACK FEATURES

- **SAFE OPERATION:**

- It is designed to the highest automotive standards
- A Class BMS ensures 24/7 battery performance and safety
- Protect against short circuit, cell over voltage, cell under Voltage, charge over current and discharge under current
- BMS monitors all 10 cell series voltage for passive balancing

- **HIGH PERFORMANCE:**

- We have used a high power NMC Li-Ion cells.
- It support 30A continuous and 60A peak discharge current
- It support 10A continuous charge current
- This battery pack has extremely low power dissipation
- Up to 50mA passive cell balancing

- **CONVENIENT TO USE:**

- This battery pack is direct replacement to lead acid battery pack
- Standards Plug in Plus Out power socket
- It has very short charging time
- Light weight and portable to use.
- It comes with IP54 water tight enclosure also.

BATTERY PACK TECHNICAL PARAMETERS

GENERAL SPECIFICATION	
Model	PPC3620N
Dimensions (LxWxH)	175mmX190X70mm
Weights	3.5kg
Nominal Packing	HS Sleeve or FRP Box
Cell Type	3.7V NMC Cylindrical
Cell Model	18650

ELECTRICAL SPECIFICATION	
Nominal Voltage	37V
Nominal Capacity	20Ah
Energy	740Wh
Resistance	38mΩ at 50%SOC
Efficiency	99%
Self-Discharge	<5% Per Month

CHARGING PARAMETERS	
Recommended Charge Current	1A – 10A
Maximum Charge Current	10A
Recommended Charge Voltage	41.2V – 42.0V
BMS Charge Cut-Off Voltage	42.50V±0.25V
Over Charge Detection Delay	800 – 1500mSec
Over Charge Release Voltage	41.5V±0.50V

DISCHARGING PARAMETERS	
Recommended Discharge Current	1A – 30A
Maximum Continuous Discharge Current	30A
Peak Discharge Current	60A for 2 Sec
Recommended Discharge Voltage	30.5V – 31.0 V
BMS Discharge Cut-Off Voltage	27.5V±0.80V
Over Discharge Detection Delay	800 – 1200mSec
Over Discharge Release Voltage	28.0V±0.50V

FEATURES OF BMS



Our A Class BMS provides passive balancing of up to 50 mA. Cell balancing is achieved by discharging energy from the highest charged cells, resulting in increased pack lifetime with a higher capacity and longer runtime than unbalanced battery packs.



Our A Class BMS protect battery pack from over charging. It detect the voltage and cut the charging at 42.50V. This is a very essential safety parameter as it make battery pack safe from overheating.



Our A Class BMS protect battery pack from over discharging when running on load. It detect the voltage and cut the charging at 27.50V. This is a very essential safety parameter as it make battery pack safe from deep discharge.



BMS protect battery from short circuit condition. If any exterior short circuit is happening it detect the condition and disconnect the load from battery pack.



BMS protect battery pack from over current in case heavy load is applied on pack other than specified. It detects the current at $100\pm 20A$ and cut the load from battery bank.

SAFETY AND PRECAUTION

- When charging the battery, use dedicated chargers and follow the specified conditions.
- Do not connect battery directly to an electric outlet or high current application.
- Do not heat or throw battery into a fire.
- Do not use, leave battery close to fire or inside of a car where temperature may be above 60°C. Also do not charge / discharge in such conditions.
- Do not immerse, throw, and wet battery in water/ seawater.
- Do not put batteries in your pockets or a bag together with metal objects such as necklaces, Hairpins, coins, or screws. Do not store batteries with such objects.
- Do not short circuit the (+) and (-) terminals with other metals.
- Do not place battery in a device with the (+) and (-) in the wrong way around.
- Do not pierce battery with a sharp object such as a needle.
- Do not hit with a hammer, step on or throw or drop to cause strong shock.
- Do not disassemble or modify the battery.
- Do not use a battery with serious scar or deformation.