POWER CELL

WE GOT YOU POWERED



CONTINUOUS POWER FOR A SMARTER LIFE

Demand for energy is rising daily while the power generation is limited. Therefore a reliable and sufficient power supply by the national grid can no longer be guaranteed.

Solar panels are a convenient method of renewable energy generation and have become a popular choice for extra power, but will that be accessible on rainy days or at night?

THIS IS WHEN POWER CELL BECOMES YOUR SOLUTION.

POWER CELL is the home battery storage developed to fulfill the continuous power requirements of your households and institutes. Our energy storage system will enhance the domestic energy mix between the grid supply and the renewable energy from solar panels.

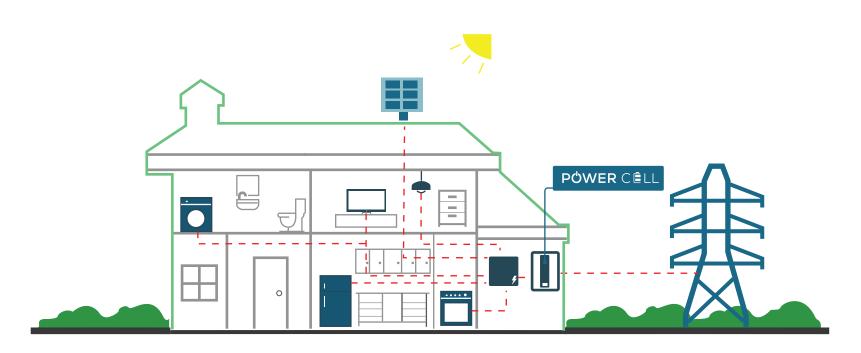


WHAT IS POWER CELL

POWER CELL is a lithium iron phosphate (LiFePO $_4$) battery pack introduced by VEGA POWER series, designed and developed by VEGA INNOVATIONS, as a household renewable energy storage solution Our low voltage DC battery pack works with a variety of suitable low voltage inverters to deliver an operating voltage of 48V. It is also flexible for parallel connection to cater for your expanded capacity requirements.

The embedded battery management system (BMS) in POWER CELL will monitor and manage the over all battery operation and provide the users with cell information such as voltage, current, temperature via the POWER CELL app. This BMS balances charging and discharging of the cells thereby ensuring the longevity of the cycle life

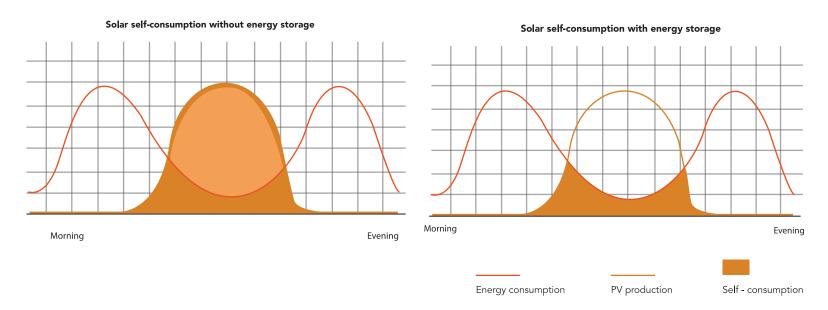
POWER CELL with its sleek design and compact size, can be easily installed in household premises as a connecting point for both grid and renewable solar power. The stored energy can be utilized throughout the day, and it will save your energy independence with an uninterrupted power supply especially for power cuts in the national grid. There is more! POWER CELL will also reduce your utility bill, by adding extra power to your essential operations at peak time when the tariff rates are high.



MAXIMIZING SOLAR ENERGY HARVEST WITH POWER CELL

Frequent power cuts and ample supply of solar energy in Sri Lanka offer a good opportunity to harvest electricity from solar panels. POWER CELL can discharge the excess energy stored from daytime and fulfill the power demands at peak hours.

This optimization of the solar energy system is illustrated as follows:



POWER CELL offers you a convenient back up energy storage with following specifications.

- Battery cell is 3.2V 100Ah aluminum case prismatic cell.
- The pack comprises of 16 Lithium iron phosphate (LiFePO₄) cells, enhancing the safety and longer cell life.
- The in built BMS overall monitors the state of charge thereby balancing the current and voltage of each cell.
- In addition the advance BMS is capable of real-time cell & pack voltage, current, temperature, and battery status monitoring and recording. It also has protection functions and warnings in case of over-discharge, over-charge, over-current, and high & low temperature.
- Ability to expand the capacity and power by connecting maximum 15 packs in parallel

FEATURES & SPECIFICATIONS

Battery Cell	3.2 V 100 Ah LiFEPO4 prismatic cell
Cell arrangement	16S 1P
Nominal capacity	100 Ah
Total energy	5.1 kWh
Recommended usable energy	4.1 kWh *
Nominal voltage	51.2 V
End of discharge voltage	45.0 V
Charging voltage	52.8 V - 56.6 V
Max. charging current	100 A DC
Max. discharging current	100 A DC
Recommended max. charge current	50 A
Recommended max. discharge current	80 A
Pulse discharge current	300 A
Internal impedance	12 mΩ
Display method/ Language	LCD/ English
Communication interface	CAN
Max. BMS parallel support	16 units
Max. BMS series support	
Cooling method	Passive cooling through the enclosure
Dimensions	W - 400 mm L - 580 mm H - 174 mm
IP rating	IP21
Net Weight	57.2 kg
Cycle life	6000 cycles (80 DOD, 0.2C, 25C)
	4800 cycles (80 DOD, 0.5C, 25C) **
	Over voltage/ Low voltage/ Over temperature/
Protection	Low temperature/ Over current/ Short circuit/
Operating temperature range	20 C - 45 C
Recommended humidity	10%-70%



WHAT POWER CELL OFFERS





SECURE YOUR ENERGY INDEPENDENCE

POWER CELL allows you to be the controller of your power supply, by overriding the power cuts. Your battery storage is ready to provide continuous power. This will also ensure the continuous operation of your lighting and security systems.



UTILIZE SELF-GENERATED SOLAR POWER

A high-quality battery pack will enhance your renewable energy harvest from the solar panels. Charge the cells at day time and discharge the power for night time usage



SAVE ON YOUR BILL

Harvest and store energy from off peak day time. Take a break from national grid and let POWER CELL energize your home at peak time where tariff is high.



SMART ENERGY MANAGEMENT

Through the POWER CELL app, you can be in control of your power and monitor the operation of the battery pack. With Wi-Fi connectivity, the interactive mobile app provides a user convenient monitoring function, to control the operation of your POWER CELL.



EASY INSTALLATION

Once installed by a certified technician, the unit will be ready to power up your home simply by plugging to the circuit. The sleek design and compact size will fit in to your premises without a hassle.



SAFE & QUALITY POWER

POWER CELL is engineered, meeting the global electrical standards because your safety is on of our top priority. The quality is assured in each unit to provide you with reliable back up power.



WARRANTY

5-Year Limited Warranty included with the POWER CELL, followed by after sales services

MONITOR YOUR POWER CELL

Through the user friendly interface of VEGA POWER app, you can monitor your own home energy storage and have a clear overview about

- Battery state of charge
- ♦ Voltage & Battery temperature
- Overall energy profile







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