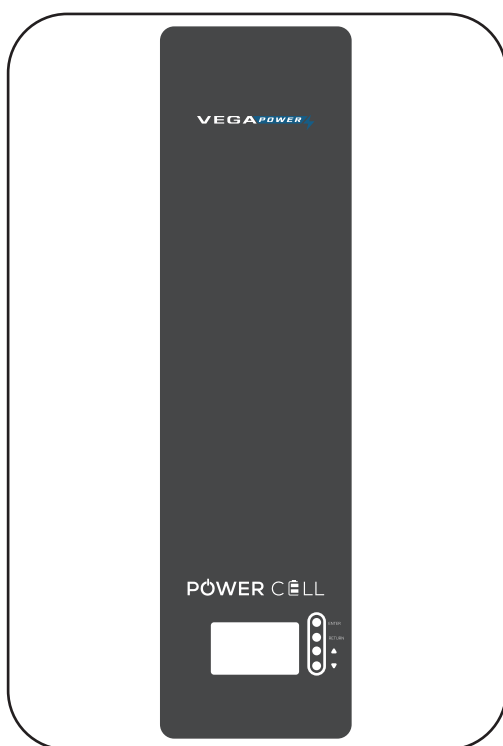


Installation and Operation Manual

MODEL : PCW050050N



PRODUCT BY



TABLE OF CONTENTS

HANDLING GUIDE - - - - - 02

SAFETY INSTRUCTIONS - - - - - 04

INTRODUCTION - - - - - 07

SPECIFICATIONS - - - - - 08

DEVICE - - - - - 09

OVERVIEW - - - - - 12

COMPONENTS - - - - - 13

INSTALLATION - - - - - 14

MULTIPLE CELL CONNECTION - - - - - 17

DEVICE SETUP - - - - - 18

PRODUCT APPLICATION - - - - - 21

WARRANTY DISCLAIMER - - - - - 24

POWER CELL HANDLING GUIDE

STORAGE

- Place battery according to signs on packing case. Do not put battery upside down or sidelong.
 - Store batteries in a place free from direct sunlight and rain.
 - Keep batteries at least two meters away from a heat source (such as a radiator).
 - Avoid contacting with corrosive and organic substances (including gas exposure).
 - Batteries with deficiencies should be separated from normal batteries by setting wall between or placing in difference fire protection zones.
 - Ambient temperature ranges between 20°C to 45°C. Relative humidity ranges between 10% RH-70% RH.
 - Keep the storage area dry, clean and well ventilated.
 - In case of storage over six months, batteries should be recharged in the following steps.
1. Identify batteries that need recharging;
 2. Ensure batteries in power-off mode. Refer to Quick Guidance to complete the installation and wire connection;
 3. Set "CV=55V,CC=50A" and start recharging;
 4. Recharge until LED2 flicks;
 5. Leave circuit open and rest battery for five minutes. Check battery voltage. If voltage is not less than 52 V, the recharging succeeds;

TRANSPORTATION

- Before transportation, press POWER button for two seconds and five LED lights flicker for three times to power off battery.
- During transportation, put battery flat or stand position, do not lean on the floor to avoid possible crash.
- Maintain temperature between 20°C to 45°C during the transportation.
- Prohibit mixing up with explosive, inflammable or toxic objects.
- Use van-type vehicle including container and metallic van-type vehicle.
- Do not pile up foreign objects on the top of battery. Four batteries at most can be piled up.
- Maintain original packaging and keep labels complete and recognizable.
- Prevent from direct sun exposure, rain, condensation and mechanical damages.

POWER CELL HANDLING GUIDE

BEFORE CONNECTING

- Do not put battery upside down or sidelong.
- After unpacking, please check product and packing list first, if product is damaged or lack of parts, please contact with the local retailer.
- Before installation, be sure to cut off the grid power and make sure the battery is in the turned-off mode.
- Wiring must be correct, do not mistake the positive and negative cables, and ensure no short circuit with the external device.
- It is prohibited to connect the battery with AC power directly.
- The embedded BMS in the battery is designed for 48VDC, please DO NOT connect battery in series.
- It is prohibited to connect the battery with different type of battery.
- Please ensure the electrical parameters of battery system are compatible to inverter.
- Battery system must be well grounded and the resistance must be less than 1 ohms.
- Please ensured the electrical parameters of battery system are compatible to related Equipment (Inverter).
- Keep the battery away from water and fire.

DURING OPERATION

- If the battery system needs to be moved or repaired, the power must be cut off and the battery is completely shut-down.
- It is prohibited to connect the battery with different type of battery.
- It is prohibited to put the batteries working with faulty or incompatible inverter.
- It is prohibited to disassemble the battery (QC tab removed or damaged).
- In case of fire, only dry powder fire extinguisher can be used, liquid fire extinguishers are prohibited.
- Please do not open, repair or disassemble the battery except staffs from Pylontech or authorized by Manufacturer. We do not undertake any consequences or related responsibility which because of violation of safety operation or violating of design, production and equipment safety standards.

IMPORTANT SAFETY INSTRUCTIONS

SAFETY PRECAUTIONS

- It is very important and necessary to read the user manual carefully (in the accessories) before installing or using battery. Failure to do so or to follow any of the instructions or warnings in this document can result in electrical shock, serious injury, or death, or can damage battery, potentially rendering it inoperable.
- If the battery is stored for long time, it is required to charge them every six months, and the SOC should be no less than 90%.
- Battery needs to be recharged within 12 hours, after fully discharged.
- Do not expose cable outside.
- All the battery terminals must be disconnected for maintenance.
- Please contact the supplier within 24 hours if there is something abnormal.
- Do not use cleaning solvents to clean battery.
- Do not expose battery to flammable or harsh chemicals or vapors.
- Do not paint any part of battery, include any internal or external components.
- Do not connect battery with PV solar wiring directly.
- The warranty claims are excluded for direct or indirect damage due to items above.
- Any foreign object is prohibited to insert into any part of battery.



RISKS OF FIRE

- Do not expose battery to direct sunlight.
- Avoid contact with conductive objects such as wires.
- Keep battery away from fire source, inflammable, explosive and chemical materials.
- Do not dispose of batteries in a fire. The batteries may explode.



RISKS OF ELECTRIC SHOCK

- Do not touch battery with wet hands.
- Keep battery away from children and animals.
- A battery can present a risk of electric shock and burns by high short-circuited current.
- Battery installation and wire connection must be operated by professionals.

IMPORTANT SAFETY INSTRUCTIONS



RISKS OF DAMAGE

- Keep distance to water source.
- Do not subject battery to high voltage.
- Place battery on a flat surface.
- Do not place any foreign object on top of the battery nor step on the battery.
- Battery-connected PCS should have reinforced insulation.

RESPONSES TO EMERGENCIES



WET BATTERIES

If battery became wet or has been submerged in water, do not access it. Immediately contact the manufacturer for technical assistance. Do not dispose of batteries in a fire. The batteries may explode.



LEAKING BATTERIES

If the battery pack leaks electrolyte, avoid contact with the leaking liquid or gas. Electrolyte is corrosive and contact may cause skin irritation and chemical burns.

If one is exposed to the leaked substance, do these actions:



Inhalation

Evacuate the contaminated area, and seek medical attention immediately.



Eye contact

Rinse eyes with flowing water for 15 minutes, and seek medical attention immediately.



Swallow

Induce vomiting, and seek medical attention immediately.



Skin contact

Wash the affected area thoroughly with soap and water, and seek medical attention immediately.

IMPORTANT SAFETY INSTRUCTIONS

WARNING

If the battery catches fire, it will produce noxious and poisonous gases. Do not approach.

RESPONSES TO EMERGENCIES



FIRE

In case of fire, only dry powder fire extinguisher can be used, liquid fire extinguishers are prohibited. Battery may catch fire when heated above 150°C. Please implement the following actions.

- Extinguish fire before the battery catches fire. ABC or carbon dioxide extinguisher is recommended.
- If the fire is too strong to put out, move battery to a safe place before it catches fire.
- If battery is on fire, evacuate people first before seeking help from professional fire protection personnel.
- If battery catches fire during charging, turn off the breaker between battery and power conversion system when safety can be guaranteed.

QUALIFIED INSTALLER

This manual and the tasks and procedures described herein are intended for the use of skilled workers only. A skilled worker is defined as a trained and qualified electrician or installer who has all of the following skills and experience.

- Knowledge of the functional principles and operation of on-grid/ off-grid systems.
- Knowledge of the dangers and risks associated with installing and using electrical devices and acceptable mitigation methods.
- Knowledge of the installation of electrical devices.
- Knowledge to adherence to this manual and all safety precautions and best practices.

INTRODUCTION

INTRODUCTION

POWER CELL, lithium iron phosphate battery pack is a household renewable energy storage solution designed and developed by Vega Innovations Pvt Ltd, Sri Lanka. It is a low-voltage DC battery pack with an nominal voltage of 51.2 V and maximum capacity of 5 kWh. Which operates with hybrid and off-grid 48 V inverters to facilitate energy storage requirements of home and solar applications.

POWER CELL integrate seamlessly with your modern home with wall mountable enclosure. For ease of installation, it comes with quick disconnecting sockets to ease the process of integration.

POWER CELL supports parallel connection to expand capacity, which can meet various capacity requirements up to 80 kWh. It has a built-in smart battery management system (BMS), which can monitor and manage battery pack conditions including voltage, current and temperature. Furthermore it's equipped with battery cell balancing capability to optimize the capacity and an interface to communicate with the inverter.

FEATURES

- Compatible with established 48V inverters both hybrid and off-grid in the market.
- Minimalist enclosure design to seamlessly blend with your modern home.
- Brand new grade A battery cells with 3.2V of voltage and 100 Ah of capacity.
- Battery cells has the lithium iron phosphate (LFP) chemistry offering longer cycle life and safety performance.
- Battery cells are assembled with cell protecting insulation/cushioning materials that can facilitate proper insulation and expansion while charging and discharging.
- Battery cells are in contact with the enclosure through thermal transfer material to remove excessive heat.
- In-built battery management system with cell monitoring capabilities to ensure a stable and safe flow of power to you home.
- LCD screen that offers real time voltage, temperature, current and status information of cell and pack level.
- Expansion capability up to 80 kWh by connecting 16 battery packs in parallel.
- Short circuit protection and manual disconnecting capability through the MCB.

SPECIFICATIONS

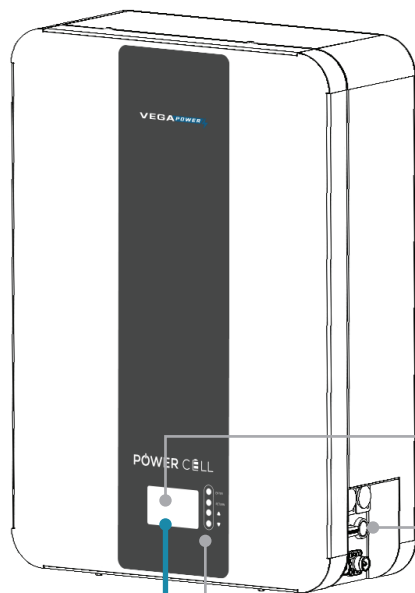
BASIC SPECIFICATIONS AT 25°C

| | |
|------------------------------------|---|
| 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) ** |
| Protection | Over voltage/ Low voltage/ Over temperature/ Low temperature/ Over current/ Short circuit/ |
| Operating temperature range | 20 C - 45 C |
| Recommended humidity | 10%-70% |

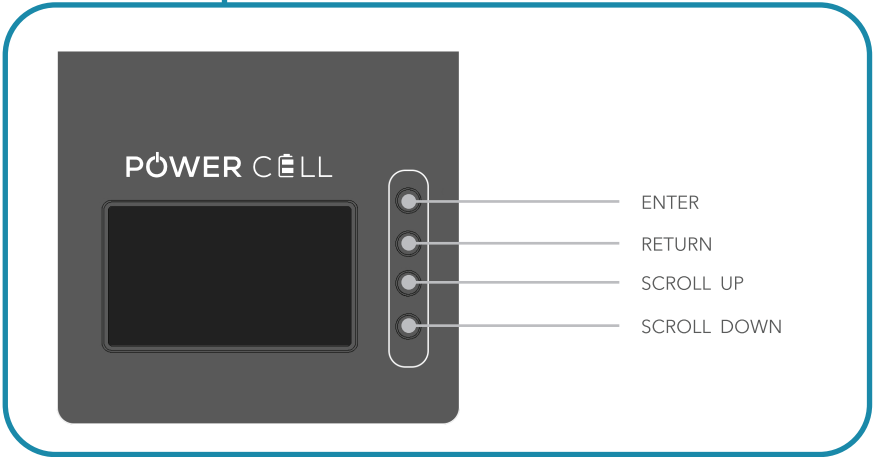
* To prolong the battery life time. (15% - 90% SOC)

** Please refer the chart

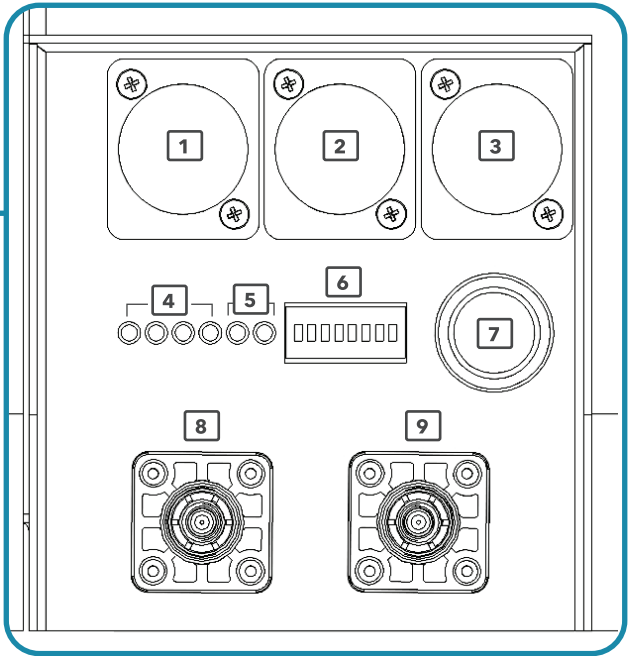
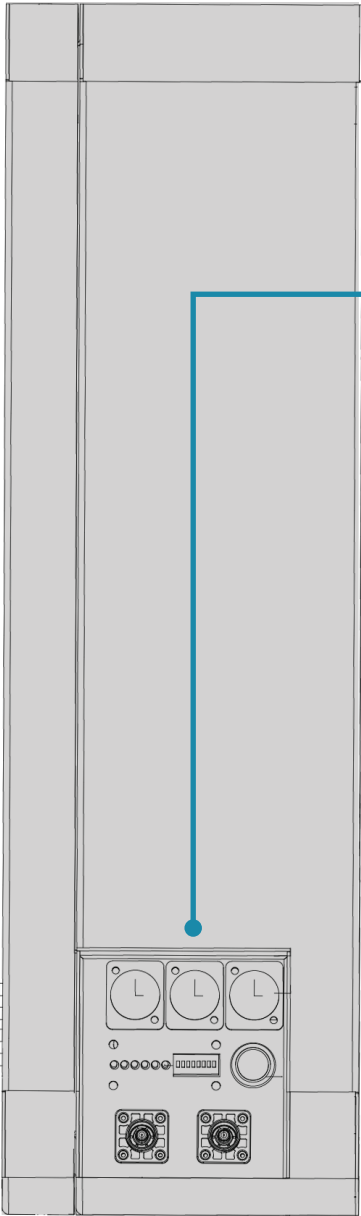
DEVICE (FRONT)



- 1** LED Screen
- 2** Power button
- 3** Display controls

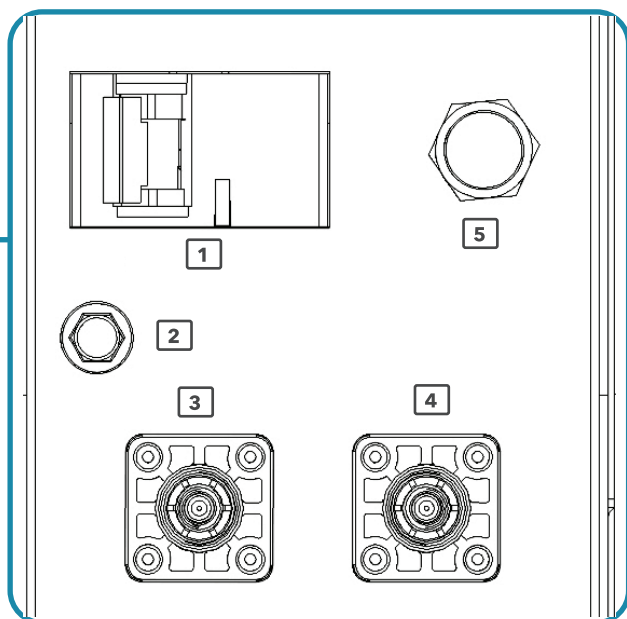
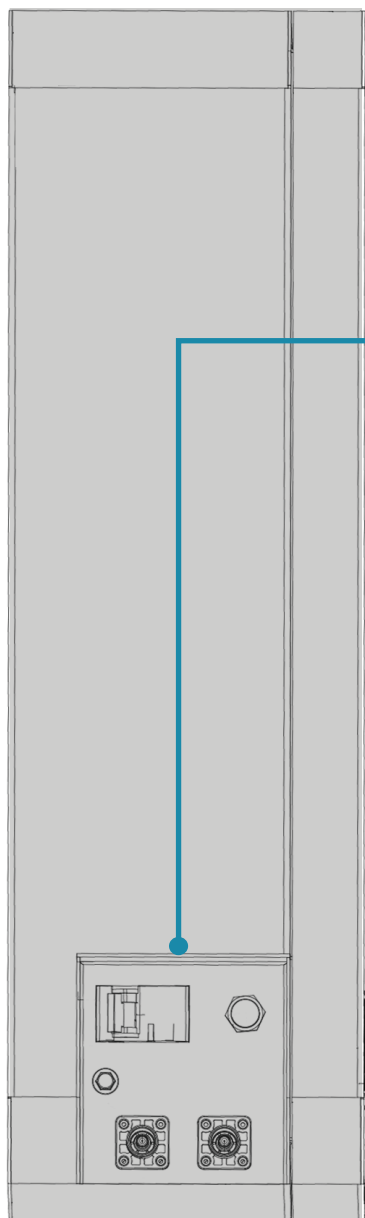


DEVICE (RIGHT)



- | | |
|-------------------------|---------------------------------------|
| 1 RS485 PORT | 5 Alarm INDICATORS |
| 2 RS485 PORT | 6 DIP SWITCH *REFER TO FIG 1.0 |
| 3 CAN PORT | 7 POWER / RESET |
| 4 SOC INDICATORS | 8 BATTERY V+ (RED) |
| | 9 BATTERY V+ (RED) |

DEVICE (LEFT)



- 1** MCB
- 2** EARTH POINT
- 3** [-] BATTERY TERMINAL (BLACK)
- 4** [-] BATTERY TERMINAL (BLACK)
- 5** PRESSURE RELEASE VALVE

OVERVIEW

MODEL NO : PCW050050N

1

2

3

4

5

| NO. | MEANING |
|-----|--|
| 1 | POWER CELL |
| 2 | Mount type [W - Wall mount R - Rack mount] |
| 3 | Voltage |
| 4 | Energy (050 = 5 KW) |
| 5 | N - Standard C - Connected |

SERIAL NO : PCW220080

1

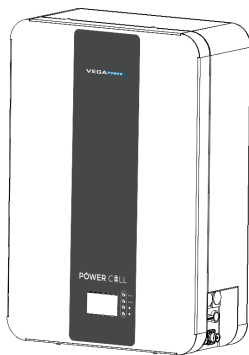
2

3

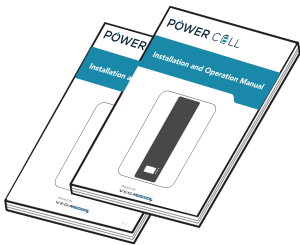
4

| NO. | MEANING |
|-----|--|
| 1 | POWER CELL |
| 2 | Mount type [W - Wall mount R - Rack mount] |
| 3 | Manufacture year |
| 4 | Unit number |

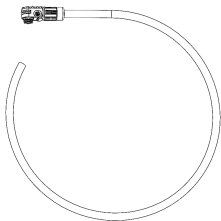
COMPONENTS



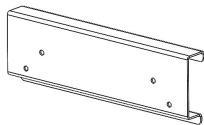
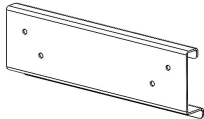
POWER CELL



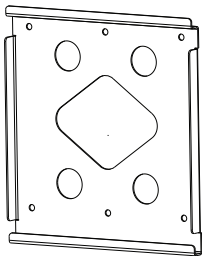
INSTALLATION MANUAL



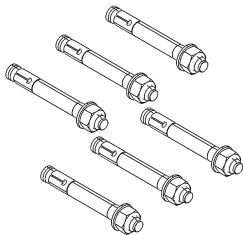
2X POWER WIRE



UP & DOWN BATTERY MOUNT



WALL MOUNT



M6 ANCHOR BOLTS

INSTALLATION

REQUIRED TOOLS FOR INSTALLATION



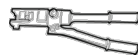
Safety Shoes



Safety Goggles



Insulated Gloves



Hydraulic plier



Multimeter



Tape measure



Pencil



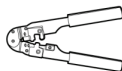
Cable wrench



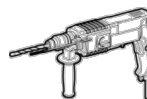
Screw driver



Wire stripper



Crimper



Hammer drill

INSTALLATION LOCATION

Make sure that the installation location meets the following conditions:

- The installation site must be suitable for the size and weight of the battery.
- Must be installed on a firm surface to sustain the weight of battery.
- The area is water proof and free from conductive dust and corrosive gas.
- There are no flammable or explosive materials in proximity.
- The ambient temperature is within the range from 20°C to 45°C.
- The temperature and humidity is maintained at a constant recommended level. Do not install battery in highly humid area such as bathroom.
- There is minimal dust and dirt in the area.
- Ensure direct contact between battery shell and ambient air. Do not cover or shield battery to avoid poor cooling.

WARNING

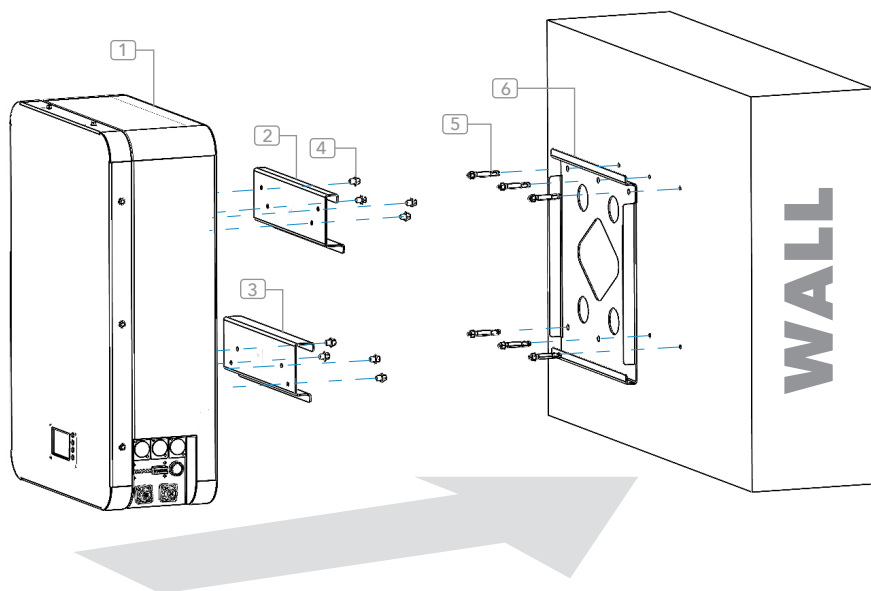
If the ambient temperature is outside the operating range, the battery pack stops operating to protect itself. The optimal temperature range for the battery pack to operate is 20°C to 45°C. Frequent exposure to harsh temperatures may deteriorate the performance and life of the battery pack.

INSTALLATION

WARNING

In order to avoid electrical shock or other injury, inspect existing electronic or plumbing installations before drilling holes. The battery is heavy, please handle with care to avoid damage to the product or injury to the installer.

Falling equipment can cause serious or even fatal injury: never mount the Power Cell on the bracket unless you are sure that the wall bracket is firmly mounted on the wall after thorough checking.



1

POWER CELL

4

BOLT

2

UP BRACKET

5

ANCHOR BOLT

3

DOWN BRACKET

6

WALL BRACKET

INSTALLATION

PRE-INSTALLATION CHECKS

- Check exterior package: before opening package, check for damages like holes, cracks or other traces on exterior packing case. If any abnormality is detected, do not open the package and contact your distributor.
- Check deliverables: after opening package, check if deliverables are complete. If there is any part missing or damaged, please contact your distributor.
- Check and confirm the battery is powered off and breaker is open before any further step.

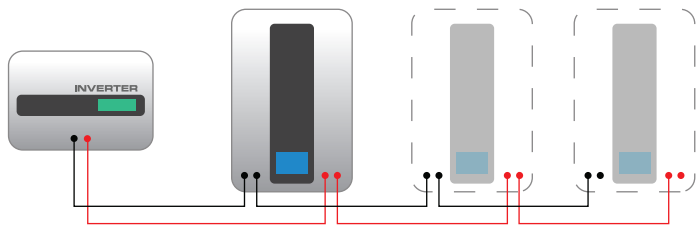
INSTALLATION STEPS

- Choose suitable firm wall (Concrete/ Brick) with thickness greater than 150 mm
- Drill 6 holes on the wall according to Power Cell mounting template (Included in the box).
- Secure Anchor bolts (Included in the box) with a hammer in to holes properly. Do not position screws flush to the wall - leave 10 to 15 mm exposed.
- Place the wall mount with the right orientation as shown in the Power Cell mounting template and secure it with nuts given with anchor bolts.
- Secure UP and DOWN battery mounts with bolts (Included in the box).
- Hang battery mounts assembled Power Cell on the Wall mount properly.
- Connect earth cable to the earth point.
- Having confirmed fixed installation, plug power cables into battery terminals (red positive terminal and black negative terminal).
- Plug CAN network cable into the network ports of power conversion system and battery. Please refer Device Setup page.
- Note: Some power conversion systems doesn't have built in CAN communication. In such a situation, Please ignore the above step.
- If you are connecting multiple batteries, plug RS485 network cables into the relevant network ports (RS485). Please refer Device setup page.

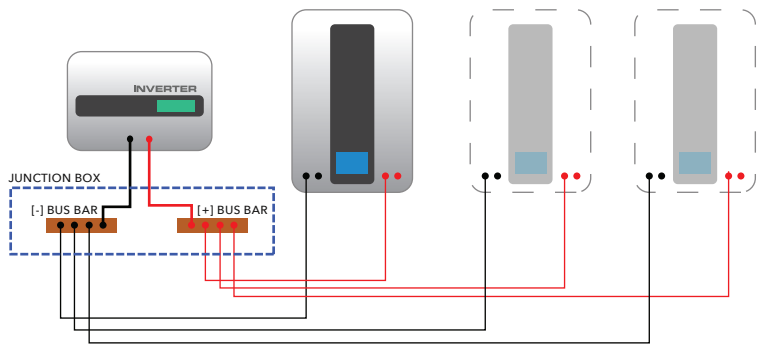
MULTIPLE POWER CELL CONNECTION

Following configurations can be followed to connect two or more Power Cells with your inverter setup for capacity expansion. You can expand the capacity of the battery bank up to 80 kWh by connecting 16 Power Cell in parallel. If the maximum battery power input of your inverter setup is more than 6 kWh, It is recommended to follow the configuration type 01. Otherwise configuration type 02 is recommended.

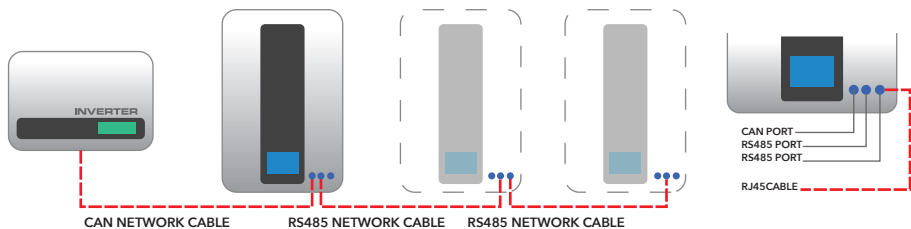
CONFIGURATION TYPE 01



CONFIGURATION TYPE 02



DEVICE SETUP



After connecting power cables to the battery from power conversion system, CAN network cable and RS485 network cables have to be connected as above. Some power conversion systems doesn't have built in CAN communication. In such a situation, no need to connect a CAN network cable from the power conversion system to the battery.

POWERCELL that you are connecting to the inverter through a RJ45 cable to its CAN port is defined as the master pack. Rest of the packs are defined as slave packs.

To set up RS485 communication dip switches have to be configured according to FIG 1.0.

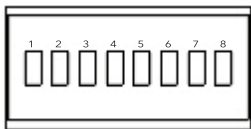


FIG 1.0

| Master pack | | | | | | | | |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Number of parallel packs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 0 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| 1 | OFF | OFF | OFF | OFF | ON | OFF | OFF | OFF |
| 2 | OFF | OFF | OFF | OFF | OFF | ON | OFF | OFF |
| 3 | OFF | OFF | OFF | OFF | ON | ON | OFF | OFF |
| 4 | OFF | OFF | OFF | OFF | ON | OFF | ON | OFF |
| 5 | OFF | OFF | OFF | OFF | ON | OFF | ON | OFF |
| 6 | OFF | OFF | OFF | OFF | OFF | ON | ON | OFF |
| 7 | ON | OFF | ON | OFF | ON | ON | ON | OFF |
| 8 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | ON |
| 9 | OFF | OFF | OFF | OFF | ON | OFF | OFF | ON |
| 10 | OFF | OFF | OFF | OFF | OFF | ON | OFF | ON |
| 11 | OFF | OFF | OFF | OFF | ON | ON | OFF | ON |
| 12 | OFF | OFF | OFF | OFF | OFF | OFF | ON | ON |
| 13 | OFF | OFF | OFF | OFF | ON | OFF | ON | ON |
| 14 | OFF | OFF | OFF | OFF | OFF | ON | ON | ON |
| 15 | OFF | OFF | OFF | OFF | OFF | ON | ON | ON |
| 16 | OFF | OFF | OFF | OFF | ON | ON | ON | ON |

| Slave packs | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PACK 1 | ON | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| PACK 2 | OFF | ON | OFF | OFF | OFF | OFF | OFF | OFF |
| PACK 3 | ON | ON | OFF | OFF | OFF | OFF | OFF | OFF |
| PACK 4 | OFF | OFF | ON | OFF | OFF | OFF | OFF | OFF |
| PACK 5 | ON | OFF | ON | OFF | OFF | OFF | OFF | OFF |
| PACK 6 | OFF | ON | ON | OFF | OFF | OFF | OFF | OFF |
| PACK 7 | ON | ON | ON | OFF | OFF | OFF | OFF | OFF |
| PACK 8 | OFF | OFF | OFF | ON | OFF | OFF | OFF | OFF |
| PACK 9 | ON | OFF | OFF | ON | OFF | OFF | OFF | OFF |
| PACK 10 | OFF | ON | OFF | ON | OFF | OFF | OFF | OFF |
| PACK 11 | ON | ON | OFF | ON | OFF | OFF | OFF | OFF |
| PACK 12 | OFF | OFF | ON | ON | OFF | OFF | OFF | OFF |
| PACK 13 | ON | OFF | ON | ON | OFF | OFF | OFF | OFF |
| PACK 14 | OFF | ON | ON | ON | OFF | OFF | OFF | OFF |
| PACK 15 | ON | ON | ON | ON | OFF | OFF | OFF | OFF |

DEVICE SETUP

INDICATOR LIGHTS

There are 6 lights to indicate several operating status of the Power Cell. First 4 lights indicate the SOC level according to the table bellow.

5th light is the alarm indication. If it is blinking in red colour, there is a warning which can be checked through the LCD screen. If it stays in red colour, battery pack is in a state of abnormal temperature, over current or short circuit.

6th light is the battery turn-on status indication. It may stay illuminated or blink in green colour.

| Status | Discharge | | | | Charge | | | |
|---------------------|---------------------------|-------------|-------------|-------------|---------------------------|-------------|-------------|-------------|
| Capacity indicator | ● L4 ● L3 ● L2 ● L1 | | | | ● L4 ● L3 ● L2 ● L1 | | | |
| 0-25% | OFF | OFF | OFF | Solid Green | OFF | OFF | OFF | Blink |
| 25%-50% | OFF | OFF | Solid Green | Solid Green | OFF | OFF | Blink | Solid Green |
| 50%-75% | OFF | Solid Green | Solid Green | Solid Green | OFF | Blink | Solid Green | Solid Green |
| >75% | Solid Green | Solid Green | Solid Green | Solid Green | Blink | Solid Green | Solid Green | Solid Green |
| Operating indicator | Solid Green | | | | Blink | | | |
| | | | | | | | | |

DEVICE SETUP

Settings of the inverter have to be configured as to the instructions given bellow for better operation of the power cell with the inverter. Please contact technical team for further instructions if required.



ATTENTION

Following inverters have built in CAN protocols to allow CAN communication with the Power Cell. Parameter in the setting of those inverters has to be changed as follows.

Battery type : Lithium Ion



GOODWE
YOUR SOLAR ENGINE



victron energy
BLUE POWER



ATTENTION

Use following values for each parameters to configure an inverter that is not listed above.

Battery type

User defined

Bulk Charging voltage

56.2 V

Float Charge voltage

56.1 V

Low DC Cut off

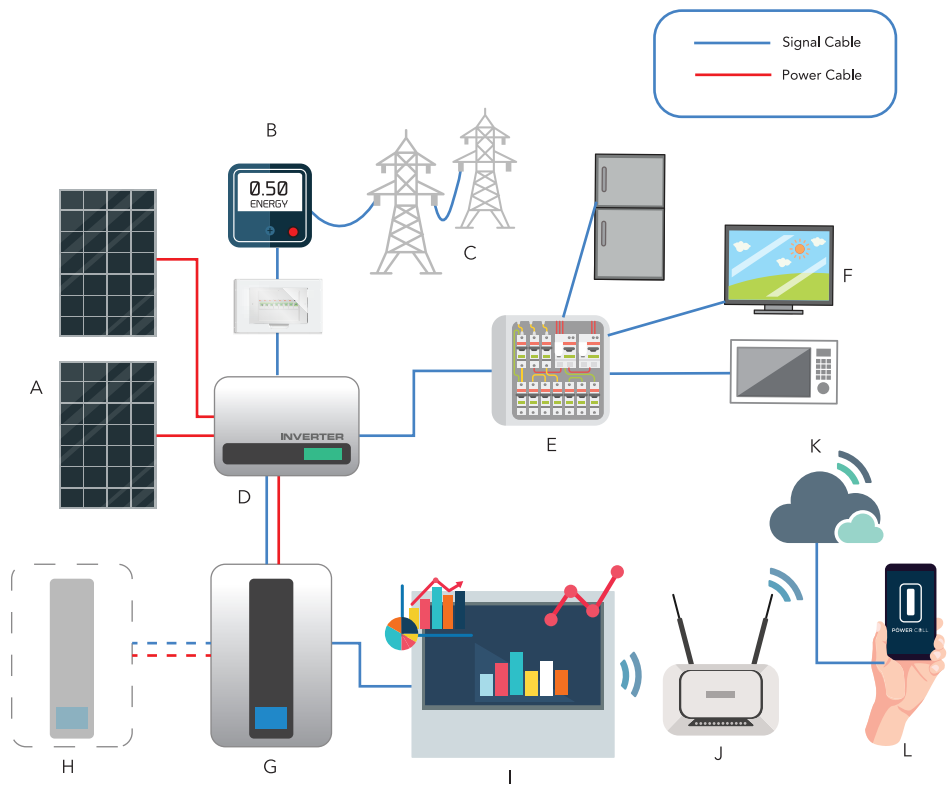
48.0 V

Charge Current

50 A

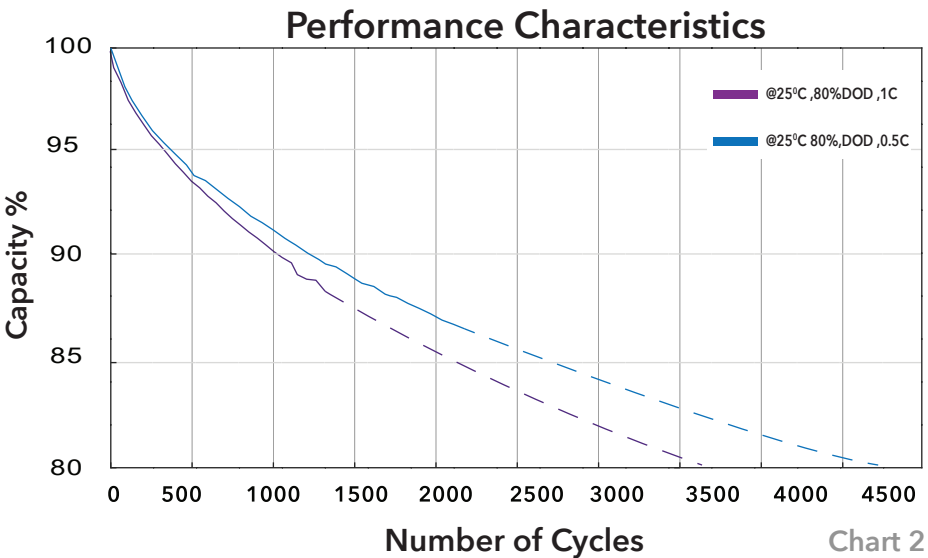
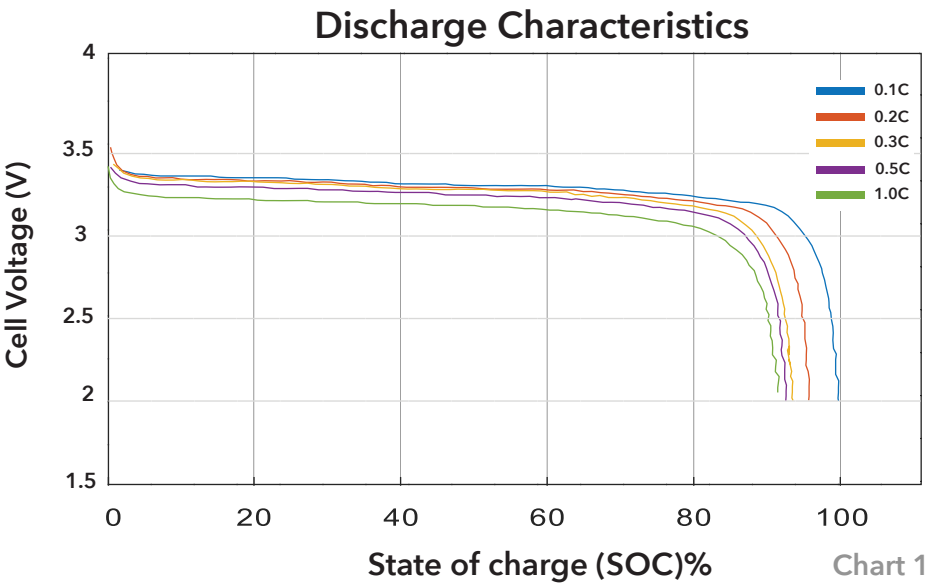
* These values may vary with inverter manufacturer

PRODUCT APPLICATION

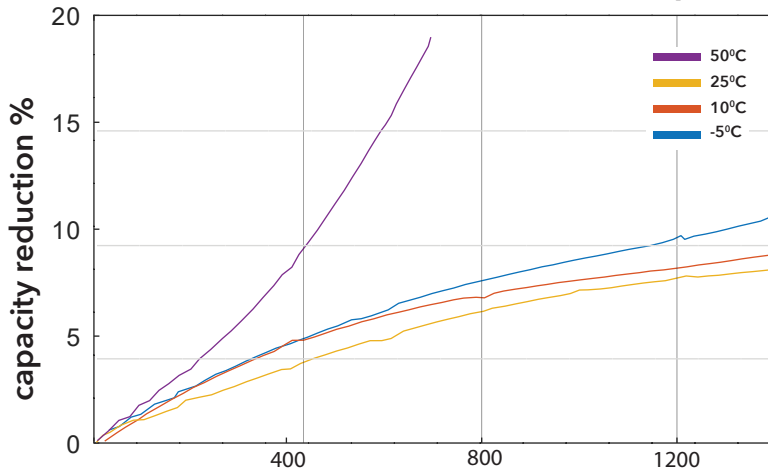


- | | |
|------------------------|---------------------------------|
| A Solar pannels | G Power Cell |
| B Energy Meter | H Capacity expansion (optional) |
| C Grid | I Data logger |
| D Inverter | J Router |
| E AC distribution unit | K Internet |
| F Appliances | L App |

PRODUCT CHARACTERISTICS



Performance Characteristics with temperature



Number of cycles

Chart 3



ATTENTION

Considering the above capacity characteristics, Power Cell could reach a cycle life of 6000 times or more at the remaining capacity of 80% at 25°C room temperature, 80% DOD @ 0.5 C.

WARRANTY DISCLAIMER

This limited contractual warranty (hereinafter referred to as "Limited Warranty") applies only to the home battery back-up systems (PCW050050N) carrying the name and style "Power Cell" and its accessories limited to cables and connectors (hereinafter collectively referred to as "Product") developed and manufactured by Vega Innovations (Private) Limited (hereinafter referred to as "Vega" and as originally supplied, and does not apply to any other products that are owned, developed or manufactured by Vega or any of its affiliates or associates for which a separate contractual agreement/warranty/guarantee or any other exclusions are provided or intended to apply.

WARRANTIES

- A. Defect Warranty - The Product shall be free from any defects or encumbrances due to faulty material or workmanship under normal residential use and conditions, for a period of ONE (01) YEAR from the time of collection/delivery.
- B. Performance Warranty – Either (a) The capacity of the Product/Battery shall not drop below 80% from its original capacity, for a period of FIVE (05) YEARS from the time of collection/delivery; or (b) The Product/Battery shall run 6000 cycles (within the 80% DOD) provided that the Product/Battery is at all times maintained at a C rate of 0.2C and a temperature of 25 Celsius) Upon the occurrence of one event the warranty pertaining to the other event shall expire.

REMEDY

If a defect is found and a valid claim is received during the Defect Warranty period, Vega, shall without any charge for either the parts or labour, but at its own discretion either:

- A. Repair the Product, or
B. provide a replacement.

Replacement parts used in the repair of Products may be new or used.

If a valid claim is received during the Performance Warranty period, Vega shall without any charge, and as the customer's sole remedy, repair the Product. REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT WITHIN THE DEFECT WARRANTY PERIOD AND REPAIR OF PRODUCT WITHIN THE PERFORMANCE WARRANTY PERIOD IS THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDY.

LIMITATIONS

The Limited Warranty offered to you above is subjected to the following;

- A. It only covers actual defects of the Product itself and does not cover installation or removal from a fixed installation and related costs for which the Customer must take the service of a qualified installer.
- B. Vega will not bear the cost of transport for the purpose of collection/returns.
- C. It does not cover defects or damage which are caused or contributed to by the following:
- normal wear and tear
 - tampering, improper storage, misuse, accident, abuse, neglect, improper installation, misapplication, non-adherence to guidelines provided by Vega,
 - due to opening, attempted opening, repairs, alterations, modifications or disassembling of Product by anyone other than Vega or any of its authorized representatives,
 - failure to follow the applicable safety regulations as provided in the Product manual,
 - due to any force major event including but not limited to acts of God, inclement weather, floods, droughts, lightening, fire, explosion, power surges, breakdown of utilities and communication facilities including electricity and internet, riots, armed conflict, terrorist and/or insurgent act, criminal activity, epidemic, pandemic, quarantine, civil commotion, trade dispute or labour disturbance, computer related attacks, governmental acts or omissions, changes in laws or regulations, national strikes, generalized lack of availability of raw materials or energy due to act or omission of third party,

WARRANTY DISCLAIMER

- f. inverter or charger failure,
 - g. as a result of Product being connected to different types of battery modules,
 - h. as a result of the Product not being used on daily cycle-based applications,
 - i. the Product has not been installed, operated, and maintained properly according to the Product manual provided by Vega,
 - j. any attempt to extend or reduce the life of the Product whether by physical, programming, hacking or any other means,
 - k. theft or vandalism of the Product or any of its components,
 - l. any electronic breakage except due to lightning (including but not limited to reverse polarity, over-voltage due to external causes etc),
 - m. The Product model or number on the warranty certificate is inconsistent with the physical Product or where the warranty certificate has been altered,
 - n. The Product is not purchased or issued from Vega.
- D. The Performance Warranty shall not be applicable if you do not adhere to the following:
- a. Maintain the room temperature (where the Product/Battery is stored) at 25 Celsius.
 - b. Maintain a Battery C rate of 0.2C

EXCEPT FOR THE LIMITED WARRANTY OF REPAIR AND REPLACEMENT AND TO THE EXTENT PERMITTED BY LAW, VEGA DISCLAIMS ALL WARRANTIES WHATSOEVER (WHETHER IMPLIED OR EXPRESSED) WITH RESPECT TO THE PRODUCTS INCLUDING UNINTERRUPTED OR ERROR FREE OPERATION OF THE PRODUCT OR CONTINUOUS SUPPLY OF ELECTRICAL SERVICES TO THE PRODUCT, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. TO ANY EXTENT THAT VEGA CANNOT LAWFULLY DISCLAIM WARRANTIES UNDER THIS LIMITED WARRANTY, ALL SUCH WARRANTIES ARE LIMITED IN DURATION OF THE WARRANTY PERIODS.

TO THE FULLEST EXTENT PERMITTED BY ANY APPLICABLE LAW, IN NO EVENT SHALL VEGA ITS DIRECTORS, OFFICERS, REPRESENTATIVES, AFFILIATES, ASSOCIATES, EMPLOYEES BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES OF ANY KIND IN CONNECTION, INCLUDING WITHOUT LIMITATION TO ECONOMIC DAMAGES, LOSS OF PROFITS, REVENUE, DATA, EQUIPMENT OR PROPERTY, PERSONAL INJURY OR DEATH TO ANY PERSONNEL, DAMAGE TO GOODWILL CAUSED BY ANY NON-PERFORMANCE, OR ANY OTHER LOSS OR DAMAGE RESULTING FROM ANY BREACH OF EXPRESS OR IMPLIED WARRANTY OR CONDITION, REGARDLESS OF WHETHER VEGA SHALL BE ADVISED OR SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING, IN EACH CASE WHETHER BASED ON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY.

HOW TO SUBMIT A VALID CLAIM TO OBTAIN THE WARRANTY

If during the warranty periods:

- (a) Vega is notified promptly in writing with proof of purchase by submitting this invoice upon discovery of the defect in the Product and
- (b) the Product is returned to Vega and
- (c) Vega determines that the Product is defective/whether there is a reduction in performance and not subject to any exclusions as set out in this Limited Warranty, in accordance with procedures established by Vega. Then as your sole remedy and as Vega's sole obligation, Vega shall provide the Remedies set out in herein.

WE GOT YOU POWERED

Please call hotline for support

+94-77-5550220

info@vegapower.lk

vegapower.lk