



# Installation, Operation, & Maintenance Manual



## RPSLinkIN

(9920-00092)

**Modular Energy Storage System for Indoor Installations**

*Revision C: Released 23-JAN-2026*

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# 1. Notice

As an express condition of Viridi's warranty and to encourage utilization of industry best practices, Viridi requires that the installation, mobilization, and operation of the RPSLinkIN only be completed by, or at the direction of, a qualified professional as defined by the jurisdiction(s) within which the installation, mobilization, and operation occurs. Specific applications can vary, so please direct specific questions to Viridi's attention:

- Telephone: 716-968-8658
- In writing to: [sales@viridiparente.com](mailto:sales@viridiparente.com)

Viridi expressly disclaims liability for applications made in a manner inconsistent with this guide and/or in non-compliance with local building and electrical codes. This Installation, Operations & Maintenance Manual, incorporates all the terms and conditions of sale. All information provided in this manual is subject to change with or without notice.

Please refer to the warranty documents provided at the point-of-sales for further information.



# SAFETY



## 2. Safety

To make the best and proper use of the RPSLinkIN, all personnel handling or operating the RPSLinkIN are advised to follow these guidelines:

- Only fully trained and qualified personnel should operate or service the machine. Read and understand the Installation, Operations & Maintenance Manual before operating the equipment to make certain that safe practices are followed, including service and maintenance intervals.
- If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged RPSLinkIN shall be removed from service, and no employee may use it until repairs and tests needed to render the equipment safe have been made.
- Always keep this Installation, Operations & Maintenance Manual in a convenient place for easy access.
- If this Installation, Operations & Maintenance Manual, is lost or damaged, contact Viridi Customer Service, referencing the equipment serial or asset number.
  - Customer Service: 1-800-984-7434
  - Parts Ordering: parts@viridiparente.com
  - Service Issues: service@viridiparente.com
  - Warranty Claims: warranties@viridiparente.com
- This Installation, Operations & Maintenance Manual should be considered part of the RPSLinkIN and remain with it.
- Constant efforts are made to improve the quality and performance of our products; it may be that some information in the User Manual differs from your equipment. If any questions arise, please contact Viridi Parente, Inc.
- All the information in this publication is based on the latest product information available at the time of printing. Viridi Parente, Inc. reserves the right to make changes to this Installation, Operations & Maintenance Manual, without notice or obligation.
- No part of this publication may be reproduced or copied without prior written permission from Viridi Parente, Inc.

### 2.1 Warnings, Cautions, and Important Notes









This “Safety Alert” symbol and others like it are in place to warn the operator of potential hazards. It means attention/become alert – the operator’s safety is involved!

This symbol can signify DANGER and, where used, documents a WARNING or CAUTION which is followed by text highlighting the potential hazard. This manual will detail the potential hazards so that necessary precaution(s) towards ensuring operator and equipment safety.

A WARNING signifies a situation whereby the operator, members of staff, or the public could be put in danger of personal injury by the improper operation of the RPSLinkIN.

A **CAUTION** signifies a situation whereby damage to the RPSLinkIN or associated parts could be caused by improper operation of the RPSLinkIN.

#### Symbols Used in This Manual

	Warning/Cautions		Wear Gloves
	Shock Hazard		Quality
	General Safety		Tip

## General Precautions



**COMPETENT PERSONNEL:** The RPSLinkIN is intended for use by suitable qualified, trained, and competent personnel who have read and understand this manual and are familiar with the equipment and its intended use. A certain level of user competence is assumed when operating power generating equipment.



**READ AND UNDERSTAND:** Before personnel operate, service, or perform tasks on the equipment, the manual must be read and understood.



**VENTILATION:** Do not obstruct the air vents and allow adequate space around the RPSLinkIN for ventilation.



**ELECTRICAL SAFETY:** Follow all applicable electrical codes and standards. Ensure proper grounding and bonding of the system components. Use appropriate PPE, including high voltage gloves, safety glasses, protective clothing, and insulated tools when working on electrical connections.



**PRECAUTIONS:** Follow the precautions listed within this manual before operation and during operation, service, and maintenance activities for the safety of the operator and others and to protect the performance of the equipment.



**WARNING LABELS:** Keep warning and caution labels from becoming dirty or torn and replace them if they become damaged. Replacements can be obtained by contacting Viridi Parente, Inc.



**SAFETY:** Safety is an utmost concern. Safety statements are one of the primary ways to call attention to potential hazards associated with generator operations.



**FIRE SAFETY:** Install fire suppression systems as required by local codes and regulations. Ensure that fire extinguishers and other firefighting equipment are readily accessible and properly maintained.



**EMERGENCY PROCEDURES:** Establish and communicate emergency procedures, including shutdown protocols, evacuation routes, and first responder action plans. Ensure all personnel are trained in these procedures.

## Warnings



**CRUSH HAZARD:** The RPSLinkIN is a crush hazard when elevated above ground level, and the area below the RPSLinkIN should be cleared before hoisting the RPSLinkIN above ground level.



**DANGER OF FALLING:** Do not stand on top of the RPSLinkIN. The surface may be slippery.



**SHOCK HAZARD:** Authorized access only. Do not remove panels to access internal components of the RPSLinkIN. There are no user-serviceable parts inside the RPSLinkIN. Only qualified, competent personnel are permitted to service internal components. Unauthorized Persons attempting to do so will be at risk of electric shock.



**SITE ACCESS:** Restrict access to the installation site to authorized personnel only. Implement security measures such as fencing, surveillance, and access control systems to prevent unauthorized entry



**HIGH VOLTAGE:** The battery energy storage system contains high voltage components. Always de-energize the system before performing any maintenance or repairs. Use lockout/tagout procedures to ensure the system remains de-energized during work.



**THERMAL RUNAWAY:** Be aware of the risks associated with thermal runaway in lithium-ion batteries. Implement measures to detect and mitigate thermal runaway events, such as temperature monitoring and automatic shutdown systems.



**CHEMICAL HAZARDS:** Batteries contain hazardous chemicals that can pose health risks if released. In the event of a battery leak or spill, follow appropriate hazardous material handling procedures and use spill containment equipment.



**MECHANICAL HAZARDS:** Use proper lifting techniques and equipment when handling heavy battery packs. Ensure that battery packs are securely mounted and supported to prevent tipping or falling.

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## 2.2 Battery Precautions

The chemicals and materials in the battery are stored in a sealed container, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, there is no physical danger of ignition, explosion, or hazardous material leakage. There is only a risk of exposure if a battery is mechanically, thermally, or electrically abused. There is no user access to the batteries. Do not remove panels. For the RPSLinkIN to operate at an optimal capacity they should be stored in a cool, dry place away from direct sunlight and sources of heat.

## 2.3 Disposal and Recycling

The RPSLinkIN comprises components that must be disposed of responsibly. Many of the components can be reused or recycled. For advice on the safe and proper disposal of RPSLinkIN, please contact the Viridi sales representative. Viridi Parente, Inc. partners with American Battery Technology Company to disassemble end of life battery cells into critical minerals to be reused.

### 3. Emergency Response Plan

The RPSLinkIN includes internal fault mechanisms designed to prevent failures and subsequent risk hazards. However, Viridi cannot guarantee safety performance of the RPSLinkIN if the equipment is exposed to abuse, damage, or negligence.

If an installer or user happens to be exposed to the internal materials of the battery cell due to damage on the outer casing, the following actions are recommended:

- **In Case of Inhalation:** Leave the contaminated area immediately and seek medical attention.
- **In Case of Skin Contact:** Wash the contacted area thoroughly with soap and seek medical attention.
- **In Case of Ingestion:** Induce vomiting and seek medical attention.

If a fire breaks out at or near the location of the RPSLinkIN, perform the following counter measures:

- In the event of a fire, appropriate extinguishing media should be used based on the type of incident. For battery-related fires, the system should be allowed to burn itself out while defensive firefighting strategies are employed to protect nearby exposures, if necessary. For non-battery-related fires, such as those occurring near an RPSLinkIN unit, suitable extinguishing agents, including water or an ABC fire extinguisher, should be utilized. Additionally, if a fire occurs adjacent to the RPSLinkIN, water may be applied as a defensive measure to cool the unit, if deemed necessary.
- Follow the proper fire-fighting instructions. If a fire occurs when charging the RPSLinkIN, provided it is safe to do so, disconnect the battery pack circuit breaker to shut off the power charge. If the battery pack is not on fire yet, extinguish the fire before the battery pack catches fire, preferably with water. If the battery pack within the RPSLinkIN is on fire, do not try to extinguish it, and evacuate people from the premises immediately.
- **WARNING:** Explosion is possible if the battery pack within the RPSLinkIN experiences temperatures above 150°C (302°F). When a battery pack is burning, it will leak poisonous gases. Do not approach it.
- To deal with an accident with the RPSLinkIN on land, refer to the site-specific emergency response plan, if available and move the damaged RPSLinkIN to a segregated location and call your local fire department or service engineer. Service inspection must be completed by Viridi or an authorized service center before the unit can be cleared for operation.
- Note that proper lockout/tagout procedures must be followed in such cases. To deal with an accident with the RPSLinkIN in the water, stay out of the water and do not touch anything if any part of the battery, inverter, or wiring is submerged. Do not use the submerged battery again.
  - Contact your Viridi Service Team for assistance at:
    - Customer Support Line: 1-866-984-7434
    - Email: [service@viridiparente.com](mailto:service@viridiparente.com)

# SYSTEM OVERVIEW



## 4. System Overview

Disclaimer: The images contained within this section and the ensuing sections may not be directly reflective of a complete installation. Custom installation solutions are possible depending on space constraints of the installation location.

### 4.1 RPSLinkIN Overview

The RPSLinkIN is a modular Lithium-Ion Battery Energy Storage System for indoor installation in residential, commercial and industrial buildings. It is designed to scale in increments of roughly 50kWh to fit the spacing and energy requirements of nearly any application. It consists of two major components:

**RPS50 Battery Pack** – the 50kWh building block allowing a system to be designed from 50kWh to multiple Megawatt hours

**PCS Cabinet** – containing the system’s inverter, power electronics, and VCom IoT edge computer

#### 4.1.1 RPSLink Configuration Naming Convention

**RPSLinkIN-480V-3p-150kWh-30kW**

Configuration’s maximum continuous charge & discharge power in kilowatts

Approximate nameplate rating configuration’s installed energy capacity in kilowatt-hours

Configuration’s rated AC interconnection voltage and number of phases

**EX:** BESS equipment is skid mounted within a NEMA rated enclosure for outdoor installations on a concrete pad

**IN:** BESS equipment components are individually skid mounted for indoor installations

### 4.2 Fail-Safe Anti-Propagation Technology

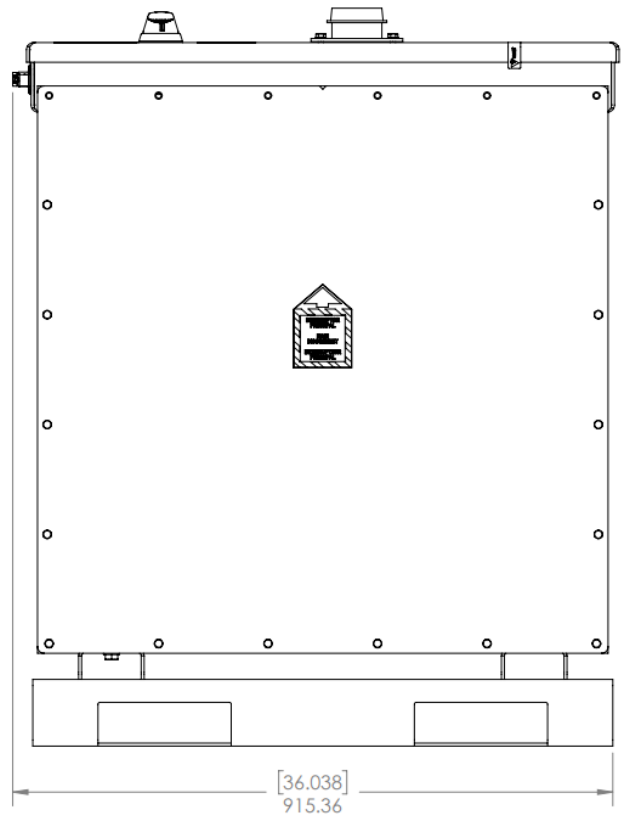
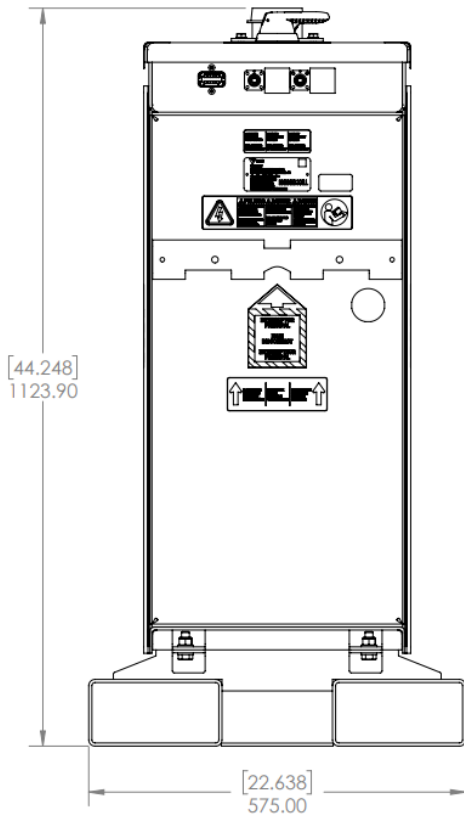
Viridi’s core value proposition lies in the Fail-Safe Anti-Propagation architecture built into RPS50 battery packs, each of which contains 48.9kWh of nameplate energy storage. UL9540A testing, which involves intentionally heating a cell within the pack to the point of thermal failure, demonstrated that Viridi’s passive technology halts cell-to-cell thermal propagation with no detectable release of heat, sparks, smoke, or flames. The pack enclosure is built from ¼” steel and IP55 rated for an extremely durable industrial design built to survive harsh environments. This technology makes Viridi’s BESS uniquely suitable for safe deployments in and around occupied spaces and critical equipment.



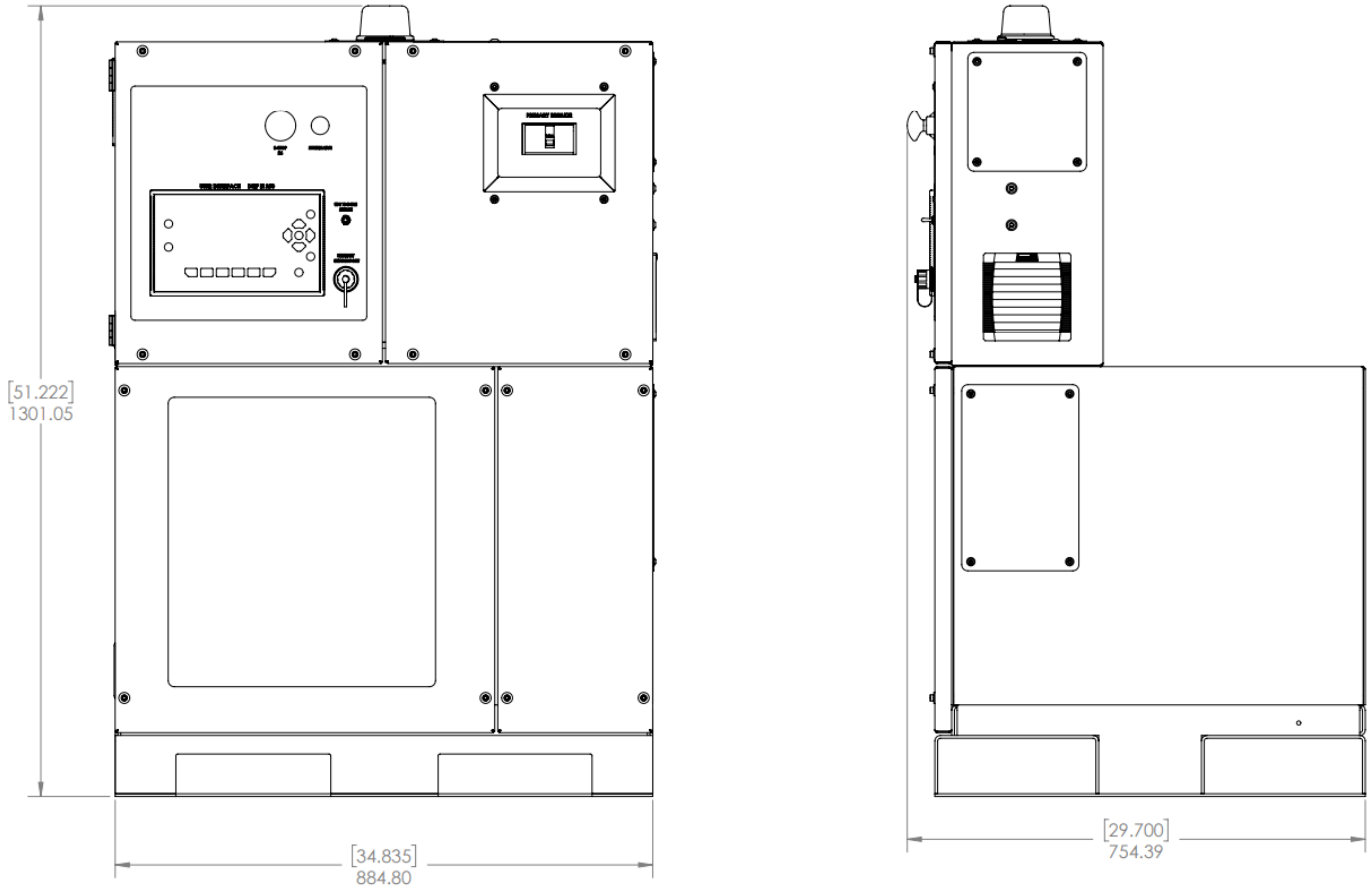
## 4.3 Physical Parameters

RPSLinkIN is a modular system built from two major components: RPS50 Battery Pack and PCS Cabinet.

### 4.3.1 RPS50 Battery Pack Dimensions



### 4.3.2 PCS Cabinet Dimensions



### 4.3.3 IP Ratings

RPS50 battery pack carries an IP55 rating

## 4.4 Performance

Model	480V-3p-300kWh-60kW	480V-3p-150kWh-30kW	480V-3p-100kWh-20kW	208V-3p-150kWh-30kW	208V-3p-100kWh-15kW	208V-3p-50kWh-10kW
System Contains	(1) PCS Cabinet	(1) PCS Cabinet	(1) PCS Cabinet	(1) PCS Cabinet	(1) PCS Cabinet	(1) PCS Cabinet
	(6) RPS50 Packs	(3) RPS50 Packs	(2) RPS50 Packs	(3) RPS50 Packs	(2) RPS50 Packs	(1) RPS50 Pack
Nameplate Capacity (kWh)	293.4	146.7	97.8	146.7	97.8	48.9
Usable Capacity (kWh)	260.4	130.2	86.8	130.2	86.8	43.4
Max Continuous Power, Charge/Discharge (kW)	60	30	20	30	15	10
Operating Voltage	480VAC 3Φ			208VAC 3Φ		
Max Continuous Current, Charging/Discharging (A)	72.2	36.1	24.1	83.3	41.6	27.8
Onboard Inverters	(2) Sinexcel PWS2-30P-NA	(1) Sinexcel PWS2-30P-NA	(1) Sinexcel PWS2-30P-NA	(2) Sinexcel PWS2-30P-NA	(1) Sinexcel PWS2-30P-NA	(1) Sinexcel PWS2-30P-NA
PWS2-30P-NA Fault Current Contribution [AC side short circuit current on-grid] (A)	260A / 100 MS	130A / 100 MS	130A / 100 MS	260A / 100 MS	130A / 100 MS	130A / 100 MS
Maximum Overcurrent Protection Device Rating (A)	100A	50A	50A	100A	60A	50A
Allowed Conductor Type & Size Range	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al
	2-8 AWG	2-8 AWG	2-8 AWG	2-8 AWG	2-8 AWG	2-8 AWG
	Cu/Al (Str)	Cu/Al (Str)	Cu/Al (Str)	Cu/Al (Str)	Cu/Al (Str)	Cu/Al (Str)
Recommended Conductor Sizing	2/0 -1 AWG	2/0 -1 AWG	2/0 -1 AWG	2/0 -1 AWG	2/0 -1 AWG	2/0 -1 AWG
Recommended Conductor Sizing	6 AWG	6 AWG	6AWG	3AWG	1/0 AWG	6 AWG
Grounding Requirements	Grounding must comply with local code requirements					
Auxiliary Power Requirements	RPSLinkIN is an autonomous unit requiring no aux power fed from outside BESS cabinet					
Operating Temp. Range	-10°C to 45°C / 14°F to 113°F [1]					
Cycle Life	4,000+ charge / discharge cycles [2]					
Communication / Telematics	BESS uses WIFI / LAN / 5G / LTE to report EMS and performance data to Viridi ViSTA®. RPSLink typically communicates to ViSTA® via LAN or WIFI.					
Backup Power	An optional Sinexcel Intelligent Transfer Switch is required for RPSLink to provide resilient power during a grid outage					

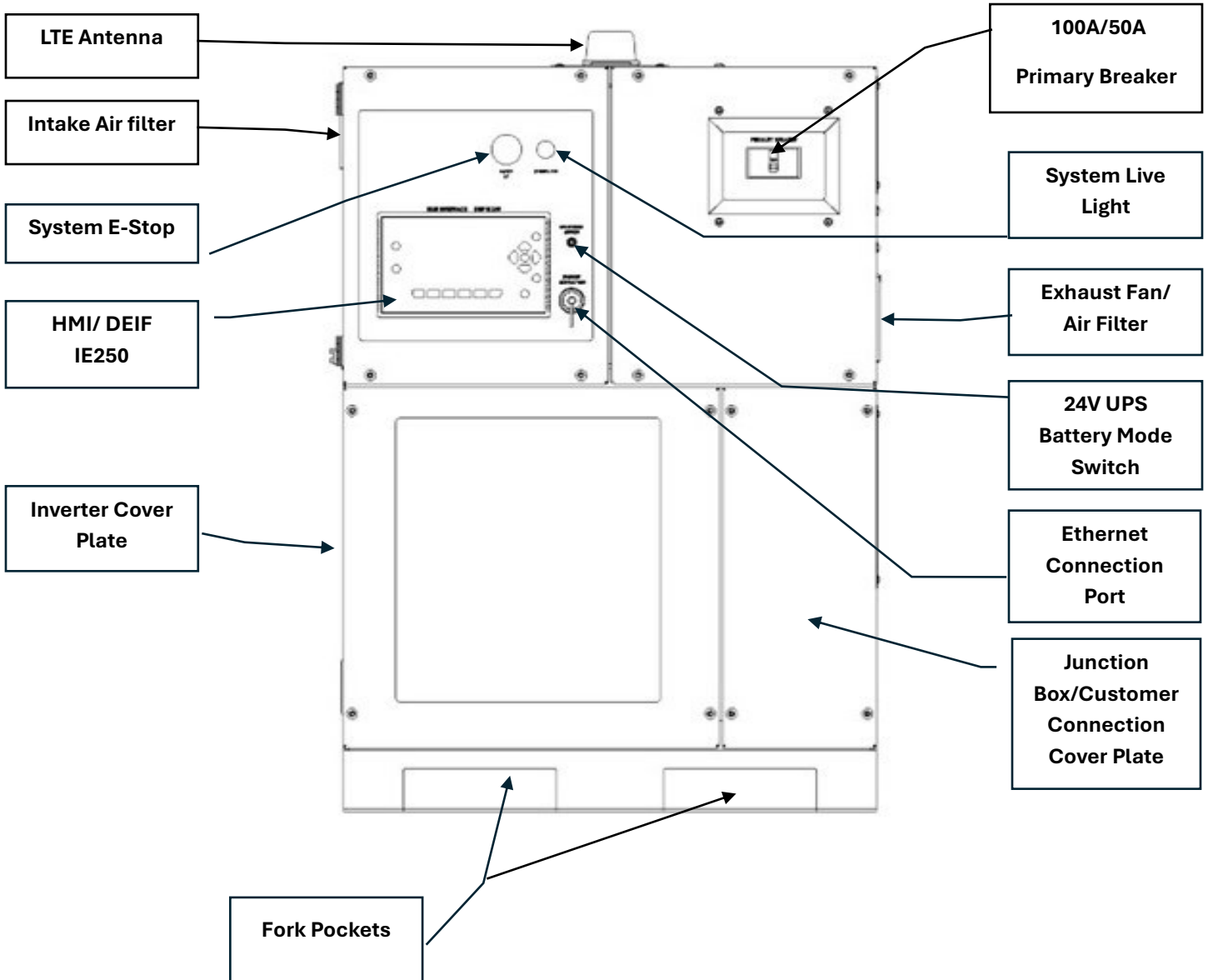
[1] Operating temperature range mirrors battery cell specifications. The Battery Management System (BMS) is programmed to manage the pack utilization rate to control the internal pack thermal conditions and prevent operation outside of pack interior temperature limits, which can be tailored for different applications/installations. The BMS communicates applicable operating conditions continuously via CAN bus to the inverter and/or system controller.

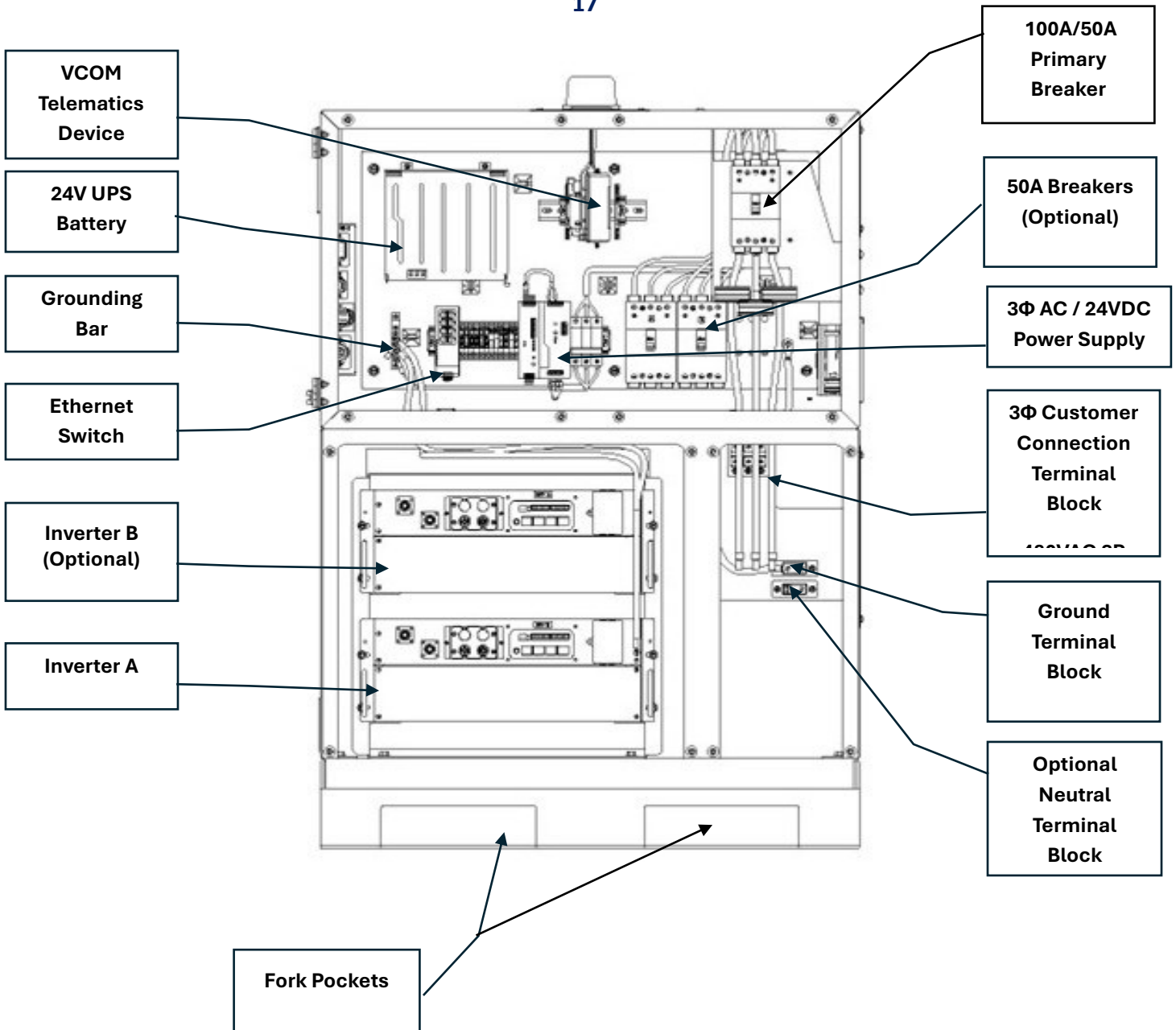
[2] Cycle life can be optimized for individual applications and operating conditions (depth of discharge, duty cycle, temperature, charge/discharge rate).



### 4.5 PCS Cabinet Components

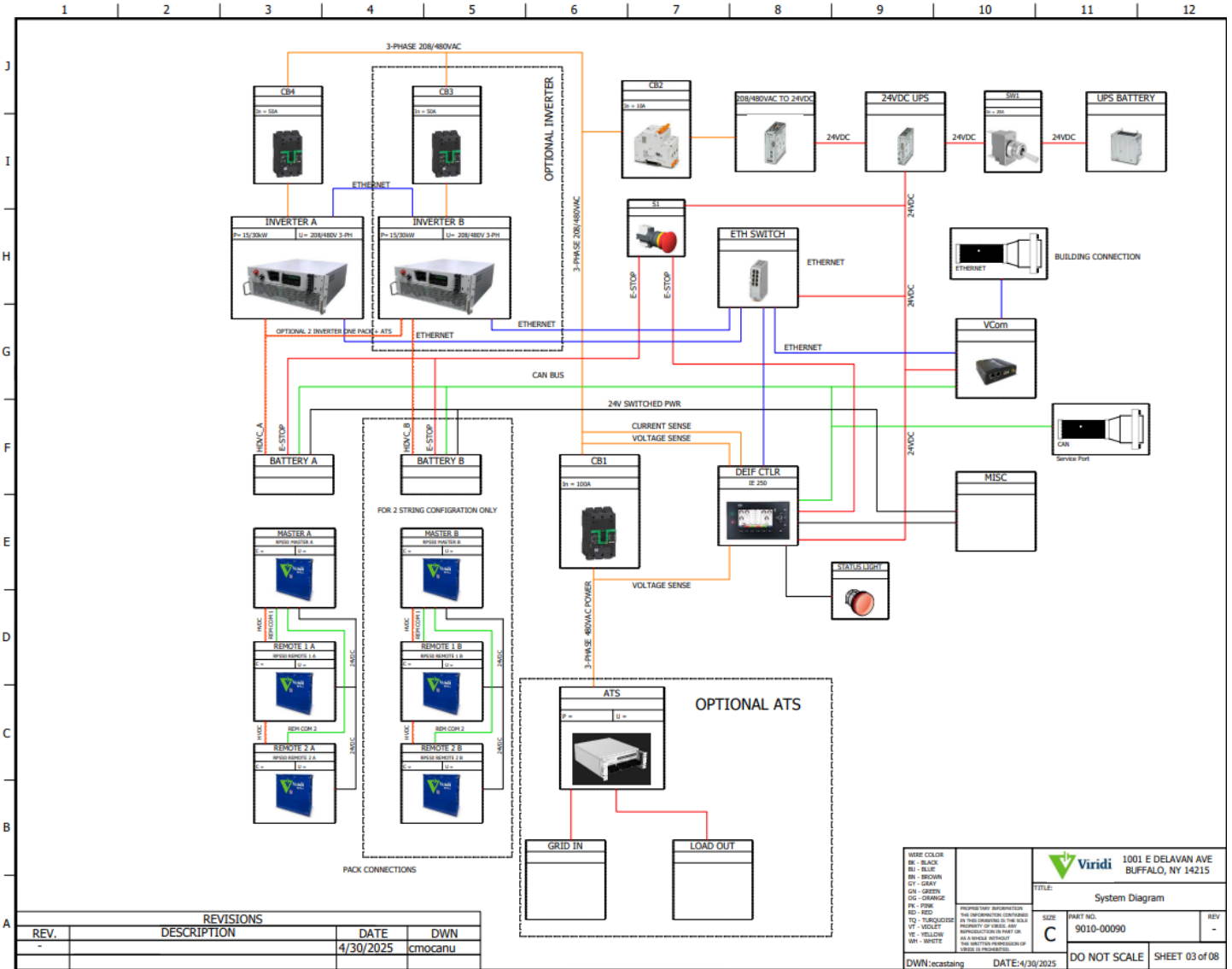
PCS Assembly





## 4.6 System Diagrams

Note: below is the Schematic for the 480V 3P version of the RPSLinkIN, if another version is needed, it as available via request to Viridi.

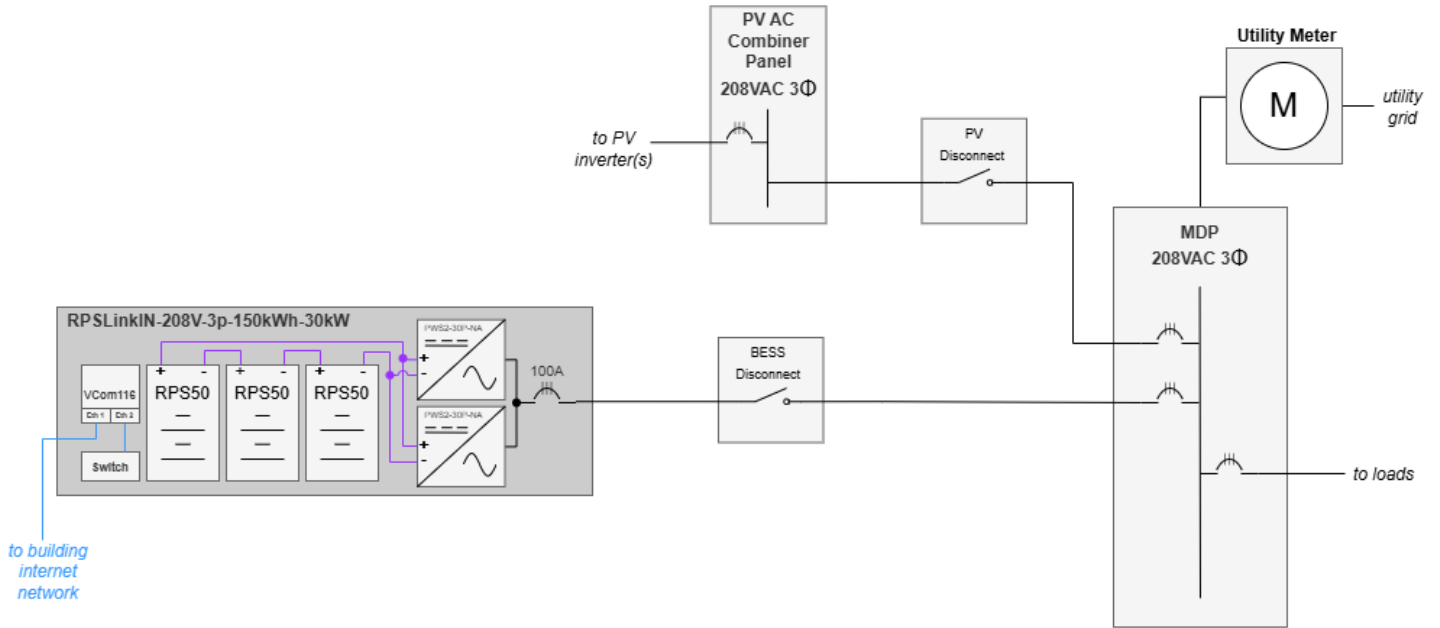


## 4.7 Example RPSLinkIN 1-line Diagrams

RPSLinkIN is a modular system that can be designed into many configurations – the following 1-line diagrams represent a few typical arrangements but are by no means representative of every system. Please contact Viridi’s Technical Sales Department at 716-968-8658 for configuration assistance.

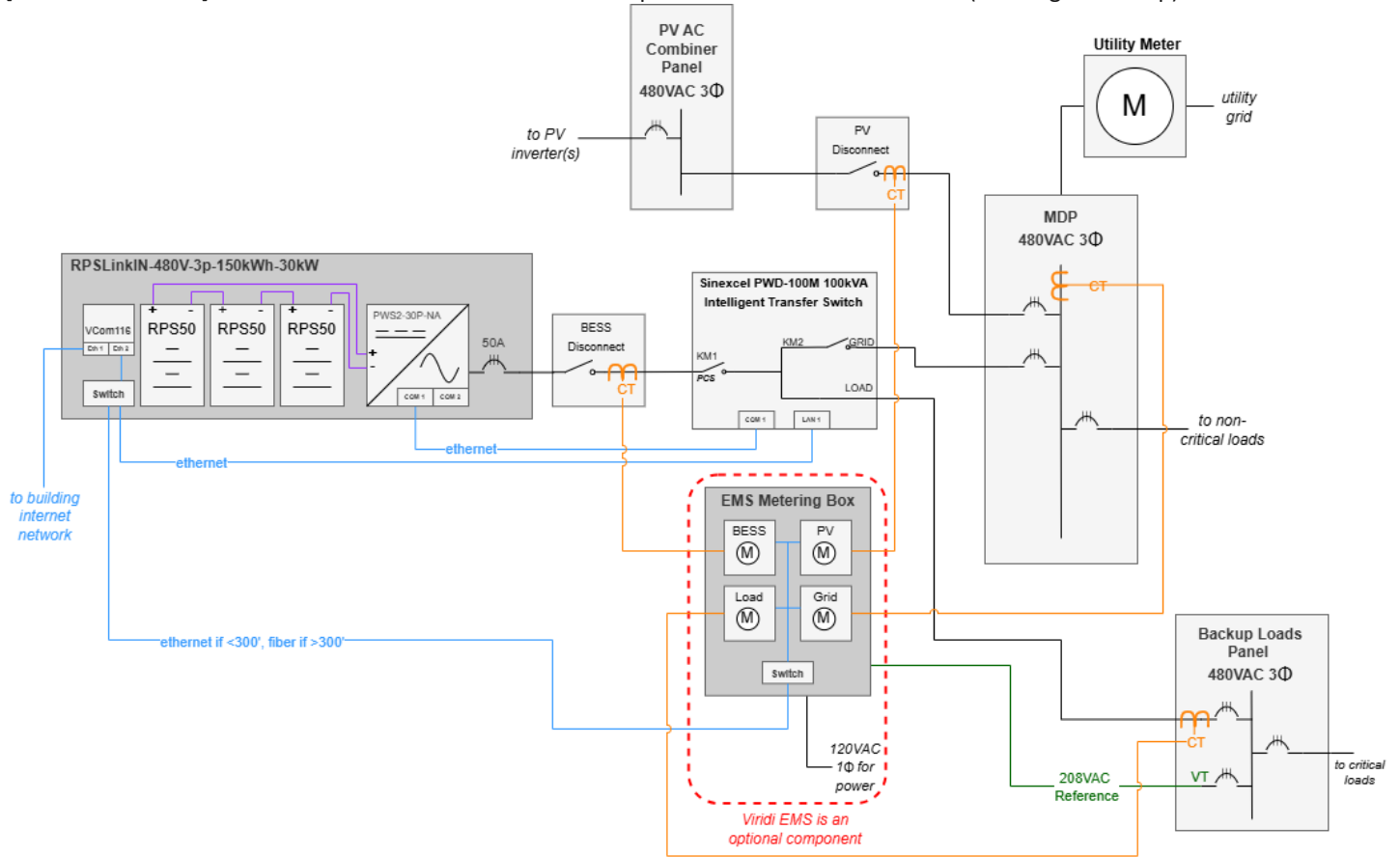
### 4.7.1 Example 1: 150kWh On-Grid BESS

[Behind The Meter] 208VAC 3Φ Solar PV + RPSLinkIN-208V-3p-150kWh-30kW



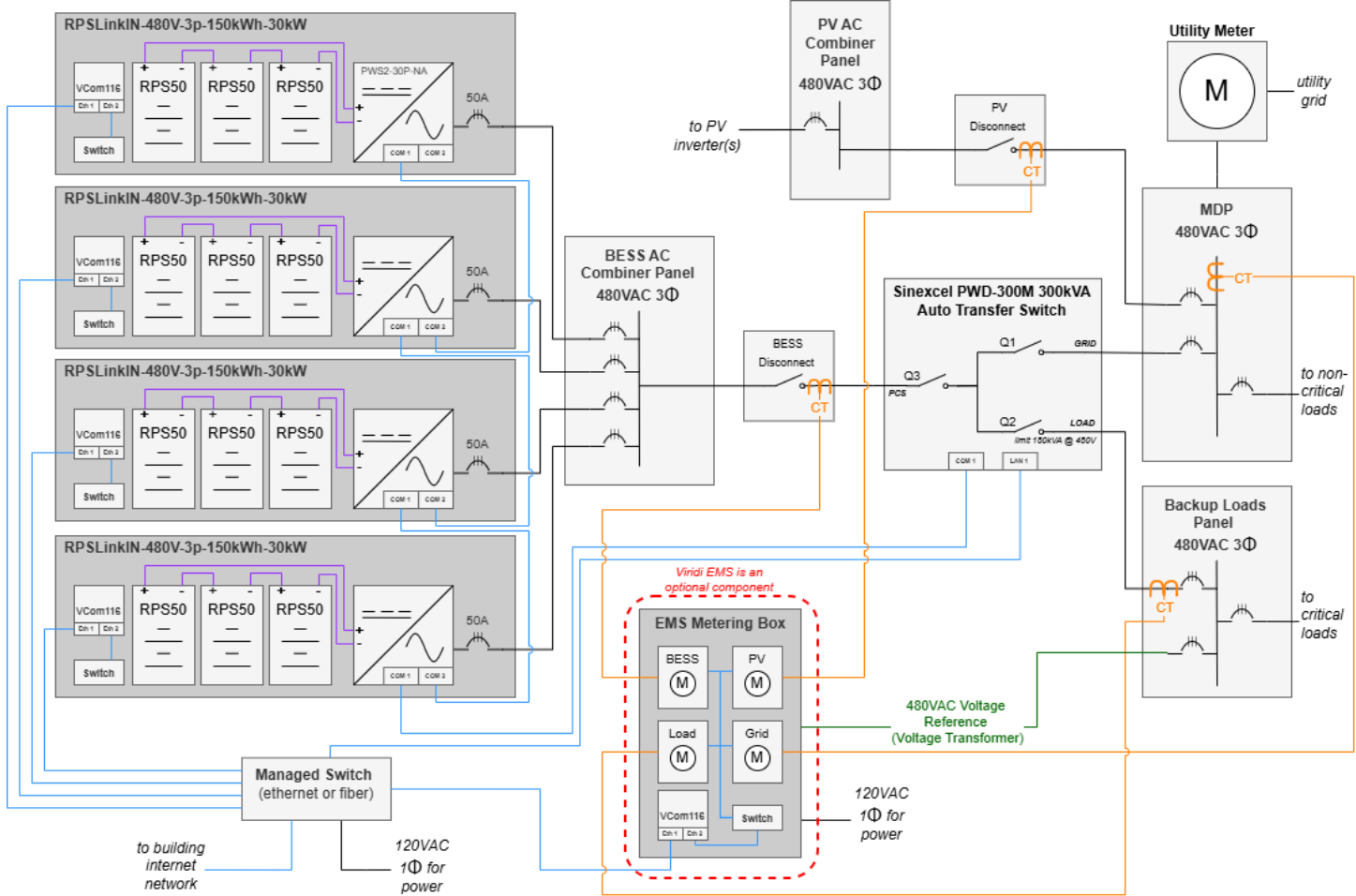
### 4.7.2 Example 2: 150kWh On / Off-grid BESS

[Behind The Meter] 480VAC 3Φ Solar PV + RPSLinkIN-480V-3p-150kWh-30kW + PWD-100M (for off-grid backup) + EMS



### 4.7.3 Example 3: 600kWh On / Off-Grid BESS

[Behind The Meter] 480VAC 3Φ Solar PV + (4) RPSLinkIN-480V-3p-150kWh-30kW + PWD-100M (for off-grid backup) + EMS



## 4.8 RPSLinkIN Certifications

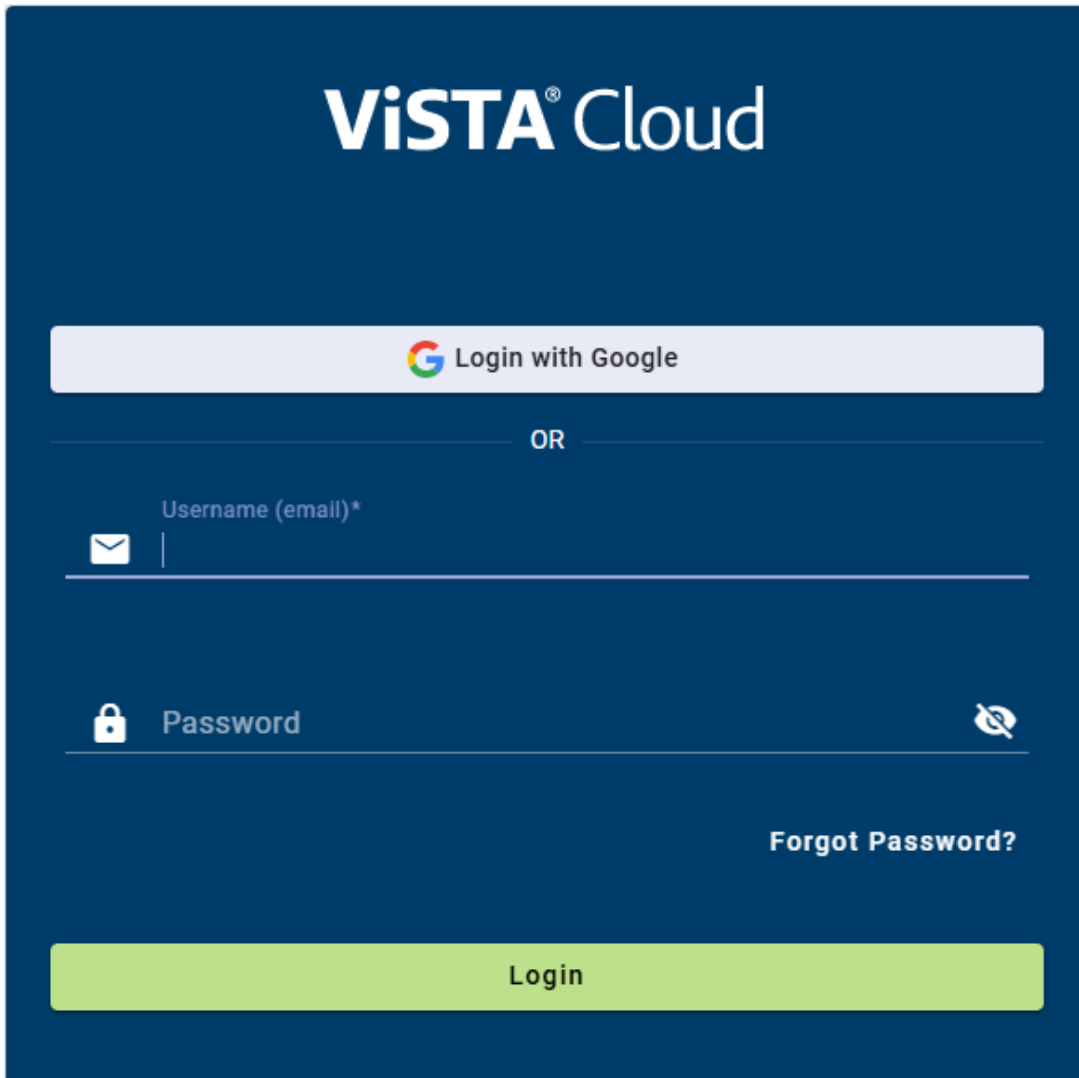
- UN 38.3 (cell, module)
- UL 1642 (cell) UL Recognized Component
- UL 1741 (Sinexcel PWS2-30P-NA inverter) cTÜV SÜDus Listed
- UL 1741 (Sinexcel PWD-100M & PWD300M Transfer Switches) cETLus Listed
- IEEE 1547 (inverter) cTÜV SÜDus Listed
- UL 1973 (pack) cTÜVus Listed
- UL 2580 (cell) UL Recognized Component
- UL 9540A (cell/module/pack tested)

## 5. ViSTA Cloud


RPSLink utilizes a wireless cellular communications module to send location and usage metrics to an administrative dashboard called ViSTA Cloud. The following will provide the basics for utilizing ViSTA.

### 5.1 Logging In

Request a ViSTA Cloud account by emailing [service@viridiparente.com](mailto:service@viridiparente.com). An email will be sent from [vista.notifications@viridiparente.com](mailto:vista.notifications@viridiparente.com) with a link to setup the account. Once setup, login by going to <https://vista.viridiparente.com/login>.




**ViSTA<sup>®</sup> Cloud**

 Login with Google

OR

Username (email)\*

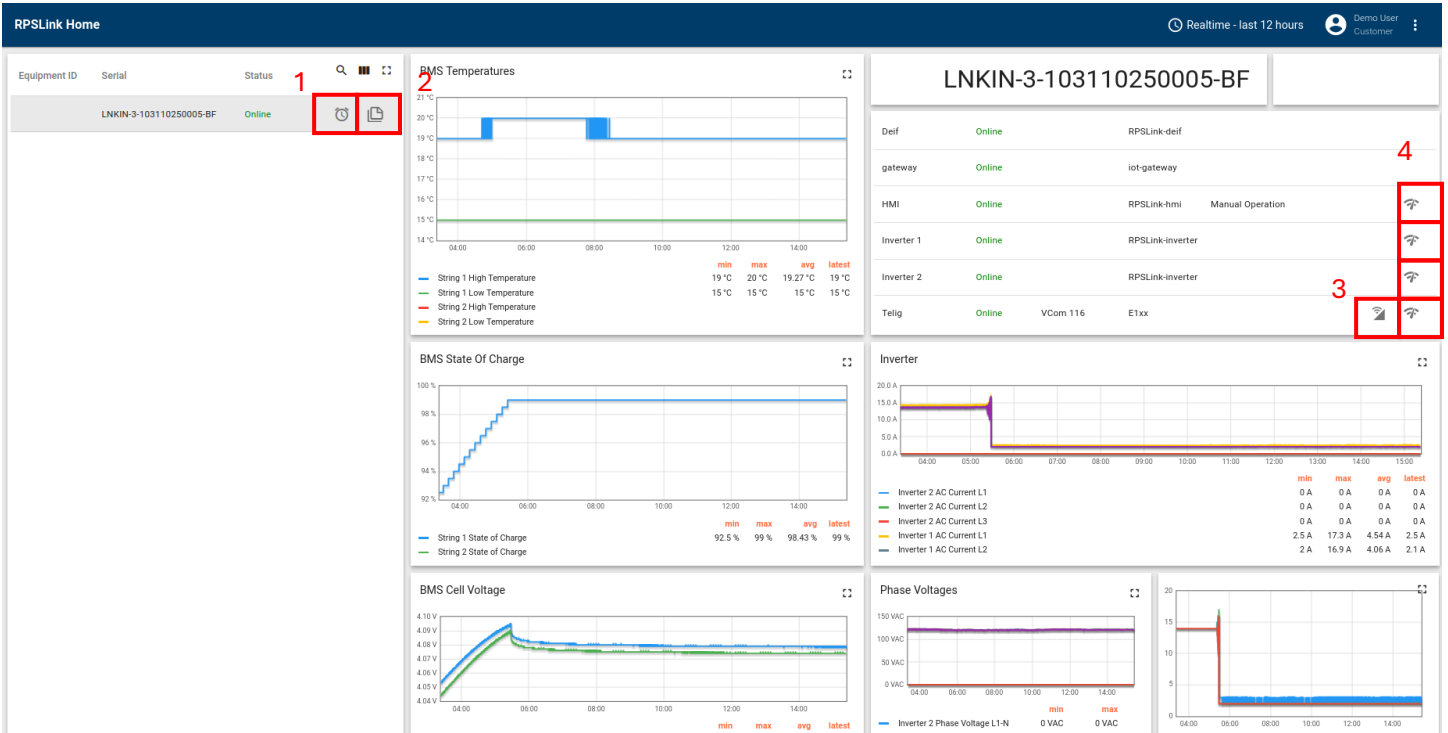
Password  

[Forgot Password?](#)

Login

## 5.2 ViSTA Dashboard

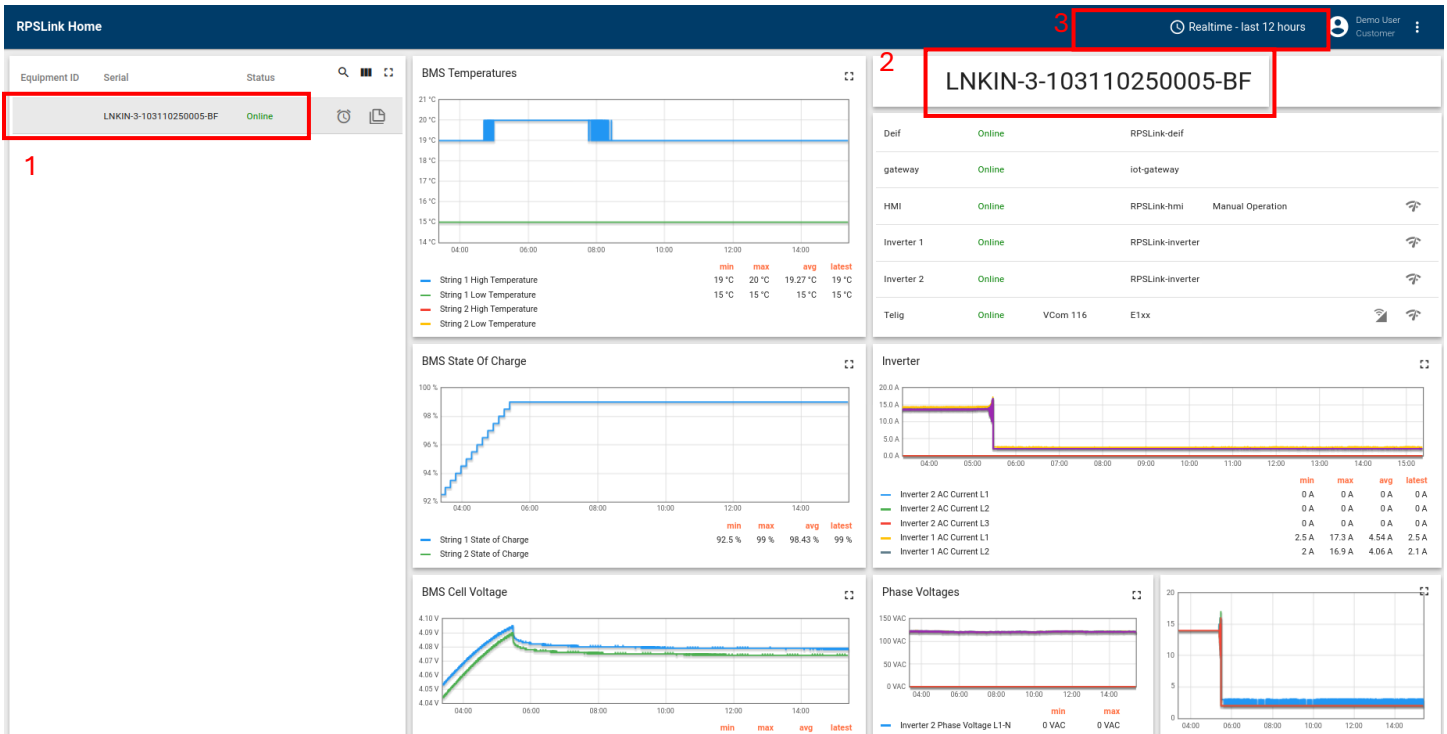
### 5.2.1 Fleet View



- Alarms:** This button opens a modal for viewing alarms, which can be filtered to show any alarms notifications status and severity.
- Notes:** This button allows the user to update notes for the unit.
- Connectivity:** This allows you to view the connectivity statistics of the unit.
- Ping Sensor:** this allows you to ping the VCom and sensors to test connectivity.

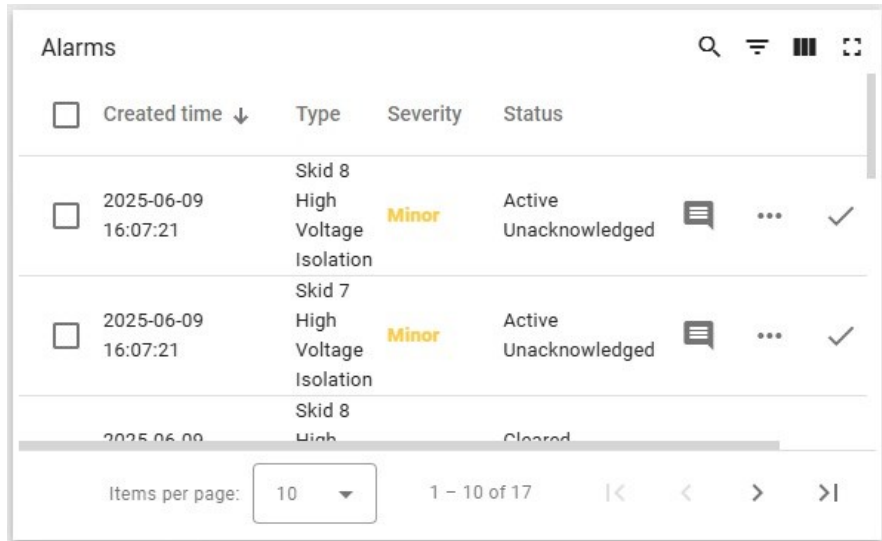


## 5.2.2 Data Over Time



1. **Select Unit:** By Clicking on the row, you will select a unit
2. **Selected Unit:** This tells you which unit is currently selected
3. **Time Window:** This allows you to modify the time window.
  - a. It is recommended when working with a time window larger than 1-day you set the aggregation method to "Average".

The alarms area permits viewing of active alarms, the type of alarm, the severity, and the status of the alarm on RPSLink.



Clicking on the box to the left of the alarm will acknowledge and/or clear the alarm.

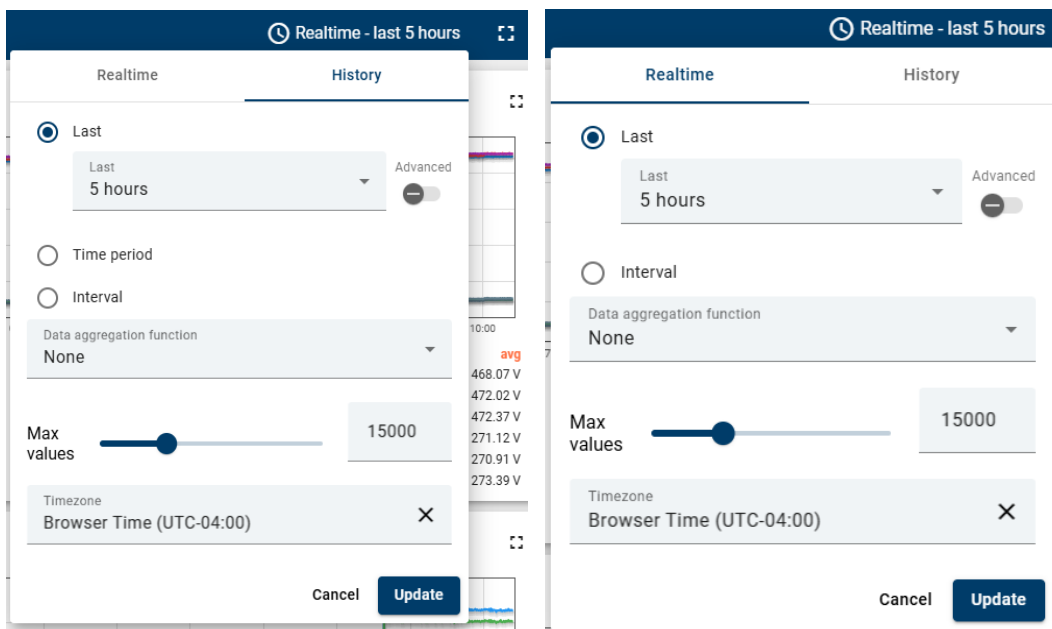
**Note:** The alarm is only cleared on ViSTA, not on the RPSLink

Clicking on the word bubble icon on the right will allow a screen view to see the activity of the RPSLink add comments concerning the alarm.

By clicking the clock icon in the upper right-hand corner of any of the diagram or system devices screens will open a menu will allow viewing the real time activity or history of the system.

The real time tab allows you to choose a period to view from the current time to however long ago it is set for.

The History tab is the same as the real-time tab except for the ability to choose a period in the past to view instead of just allowing a view of what the system is doing for an ongoing time frame. For example, the election can permit a view: a day from three weeks ago instead of the past 24 hours.



# INSTALLATION



## 6. Installation

### 6.1 Location Considerations

Determine the necessary size of energy storage/back-up system for your specific application. Different project sites require different kWh of energy storage.



**Submit designs and plans to appropriate authorities for review.** Before beginning installation or utilization, permits and inspections must be obtained in accordance with local laws and regulations, as necessary



**Coordinate site delivery and installation.** RPSLinkIN components are heavy and must be installed with proper equipment. RPSLinkIN must be installed according to the design plans above.

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To decommission or uninstall the RPSLinkIN, contact your Viridi service team for further instruction. This must be completed by Qualified Personnel, and any disposal of components requires compliance with local laws, rules, and regulations. Viridi encourages recycling of all materials where possible and works with American Battery Technology Company to recover lithium-ion battery components

Required equipment, tools, and other items depend on the final consumer and installation location. Consult your service engineer and local installer for further instruction.

### 6.2 EMI/EMC Considerations

#### 6.2.1 Definitions











Electromagnetic interference (EMI) and electromagnetic compatibility (EMC) are both important considerations when working with electronic components. EMI is caused by electromagnetic emissions that can disrupt the function of electronic devices and radio frequency (RF) systems. These devices and systems must be properly shielded from electromagnetic radiation for them to work well. EMC measures how well these devices and systems can work in the presence of disruptive electromagnetic interference.

Additionally:

- The inverter UL lists safety standards for the Inverter 1741 Supplement B and the Battery UL 1973 (pack) cTÜVus Listed recognition standards.
- The inverter and battery undergo EMI/EMC testing.
- The BESS undergoes ground bond testing to verify low chassis/earth impedance on the ground lug in the EBox.
- Within RPSLinkIN, all communication wiring if run near high voltage AC/DC wiring is shielded to reduce the potential effect. Otherwise, it is run in separate locations to remove the EMC/EMI potential on the communication lines.

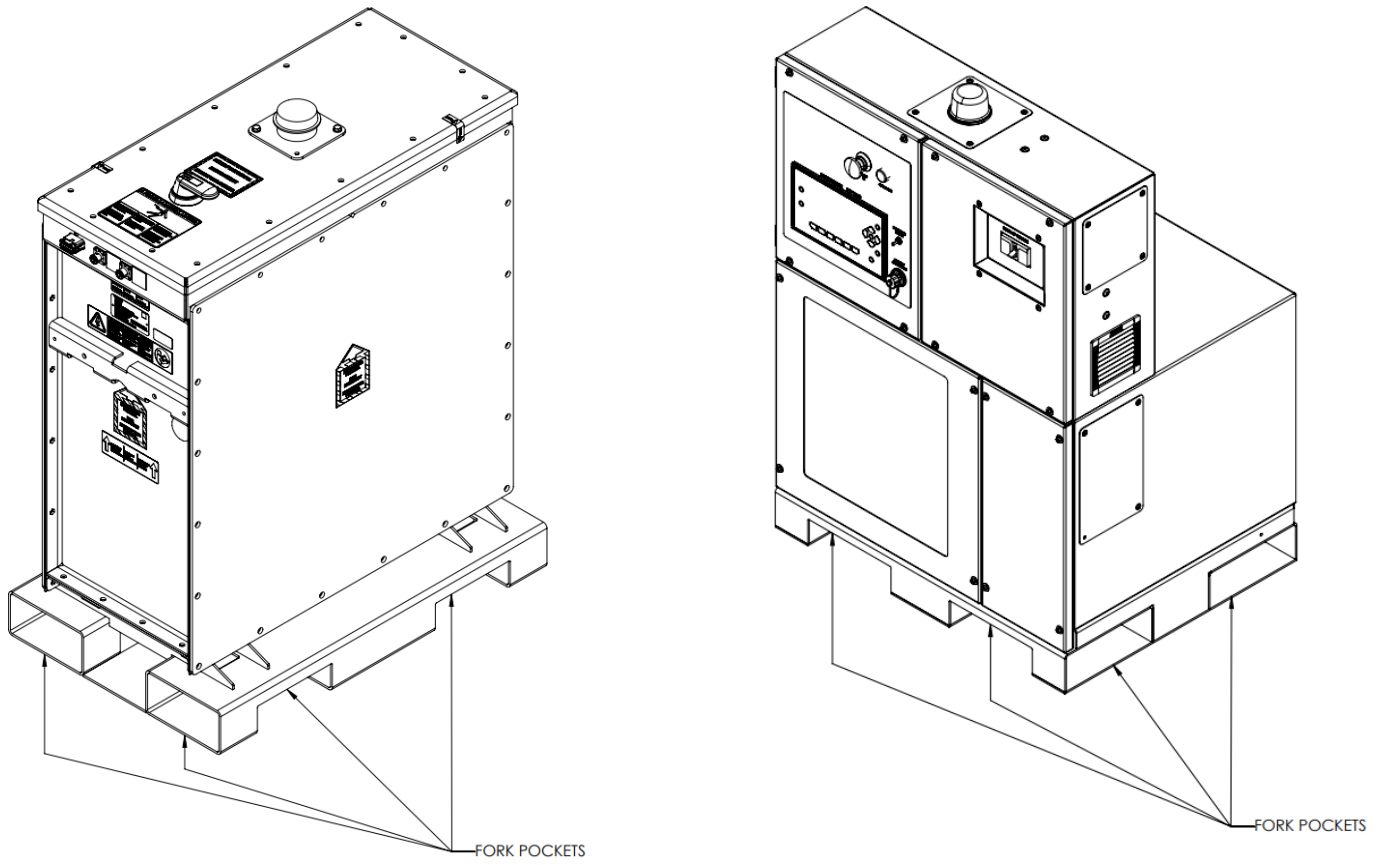
## 6.3 Handling and Transport

### 6.3.1 General Considerations

	Do not expose RPSLinkIN components to an open flame.
	Do not place or store RPSLinkIN components near highly flammable materials.
	Do not expose or place RPSLinkIN components near water sources.
	Do not install RPSLinkIN components in an airtight enclosure or in an area without ventilation.
	Store RPSLinkIN components on a flat, level surface in a cool, dry location.
	Do not disconnect, disassemble, or repair RPSLinkIN components with unqualified personnel. Only Qualified Personnel should handle, install, and service the RPSLinkIN components.
	Do not deform, impact, cut, or penetrate the RPSLinkIN components with a sharp object. Doing so may cause a fire or leakage of electrolytes.
	Do not step on or stand on RPSLinkIN components or their packaging.
	Do not place any objects on top of RPSLinkIN components.
	Do not charge or discharge RPSLinkIN if damaged or malfunctioning.

Note: Lifting and unpacking guidelines will depend on the final consumer and local installation parameters. Follow established workplace safety guidelines and procedures when receiving, handling, transporting, unpacking, lifting, and installing RPSLinkIN Components.

### 6.3.2 Loading and Unloading



## 6.4 Wiring Install Instructions

### Step 1 — Ground of Batteries and Power skid & Electronics Box

- Run grounding wires between each battery in the string or strings
- Run ground wire from closest battery to the Power skid

### Step 2 — Run High Voltage DC Cables

- Run HV DC cables between the string of batteries in series (Master, Remote 1, Remote 2)
- Run the DC cables from the string of batteries to the inverter inside the Power Skid
- Plug in all connectors into the Batteries and Inverter, verify with a push – pull – push method

### Step 3 — Run Low Voltage Harness

- Run Low voltage / Communication harness between string of batteries and Electronic Box
- Make connections DT12 connections at the Electronics Box & Master Battery
- Make DT6 connections at Remote 1 battery

### Step 4 — Run and Land utility connection AC wiring

- Drop Utility connection wiring into the RH side of the power skid (junction box)
- Land the 3-phase wire connections to the bottom of the 3-phase terminal block
- Land the Ground wire to the 1-Phase terminal block

#### 6.4.1 Sinexcel Intelligent Transfer Switch

The Sinexcel PWD-100M / PWD-300M Intelligent Transfer Switch are optional components required for RPSLinkIN to provide automatic backup during a loss of grid power.

### Step 5 — Utility and Load connections w/ Intelligent Transfer Switch

- Drop Utility connection wiring into housing for Intelligent transfer switch and land on the “GRID” Connection
- Drop Load connection wiring into housing for Intelligent transfer switch and land on the “LOAD” Connection
- Drop PCS connection wiring into housing for Intelligent transfer switch from the PCS Cabinet and land on the “PCS” Connection

## 6.5 Commissioning

### 6.5.1 Introduction

Commissioning of a newly installed and existing ESS that has been retrofitted, replaced or previously decommissioned and is returned to service shall be conducted prior to the ESS being placed in service in accordance with a commissioning plan that has been approved prior to initiating commissioning.

### 6.5.2 RPSLinkIN Commissioning Checklist

Commissioning Checklist – RPSLinkIN				
Phase	Step	Checklist Item	Status (OK / Pending / N/A)	Comments / Notes
<b><u>Phase – 1</u></b> Pre-commissioning and Documentation Review	1.1	Verify design documentation set (single-line diagrams, layout, control logic, network diagram)		
	1.2	Confirm permits, interconnection approvals, and utility witness test plan readiness		
	1.3	Review as-built wiring vs drawings; mark deviations		
	1.4	Verify system labeling, nameplates, and warning signage		
	1.5	Safety documentation — lockout/tagout plan, emergency response plan		
	1.6	Verify quality QA/QC checks completed for RPSLinkIN and site-specific Infrastructure		
<b><u>Phase - 2</u></b> Mechanical & Installation Inspection	2.1	Check physical mounting of components are level / sufficient		
	2.2	Confirm system is located away from physical obstructions and has adequate access for maintenance support		
	2.3	Inspect conduit entries and gland seals to be properly secured		
	2.5	Verify Electronic Box is secured		
<b><u>Phase - 3</u></b> Electrical Verification (Before Energization)	3.1	<b>ATS OPTION ONLY:</b> Torque check on terminal block for utility connection to ATS (as per manufacturer specifications)		
	3.2	<b>ATS OPTION ONLY:</b> Torque check on terminal block for load connection to ATS (as per manufacturer spec)		
	3.3	Torque check on Main Load Over Current Protection Device (OCPD) inside electronic box (as per manufacturer spec)		
	3.4	Torque check on Breaker connections for inverters x2 inside Electronic box (as per manufacturer spec). Load side and line side		
	3.5	Confirm system grounding/bonding continuity meets the NEC, verified by electrical contractor		
	3.6	Verify Over Current Protection Device (OCPD) reset/close and open without issues		
	3.7	Verify auxiliary power circuits (control, UPS, Network Switch, VCOM)		
	3.8	Verify all ethernet connections are made to drawing		

Commissioning Checklist – RPSLinkIN				
Phase	Step	Checklist Item	Status (OK / Pending / N/A)	Comments / Notes
	3.9	Verify all grounds are secured on the RPS50 batteries		
	3.10	Verify all grounds are secured on the Power Skid		
<b><u>Phase - 4</u></b> Controls, Communication & Software	4.1	Power up control system on auxiliary power only (no DC main contactors/disconnect closed)		
	4.2	Test communication links (VCOM ↔ HMI ↔ PCS)		
	4.3	Verify alarms and event logging functions		
	4.4	Verify VCOM antenna connections are correct and secured		
	4.5	Verify VCOM communication (LTE, WiFi or Ethernet connection)		
<b><u>Phase - 5</u></b> Functional / Dry Run Tests	5.1	Close main contactors under electrical contractor or engineering supervision (initial DC energization)		
	5.2	Run charge/discharge command tests at low power (< 10%)		
	5.3	Verify SOC reporting accuracy, voltage/current sensor calibration		
	5.4	Confirm alarm triggers: To HMI and to ViSTA system		
	5.5	Test emergency stop and system safe shutdown sequence		
	5.6	Verify RPSLinkIN is visible and active on ViSTA Monitoring Platform		
<b><u>Phase - 6</u></b> Performance / Integration Tests	6.1	Run charge/discharge command tests at low power capacity (< 10%)		
	6.2	Run charge/discharge command tests at mid power capacity (50%)		
	6.3	Run charge/discharge command tests at full power capacity (approx. 100%)		
	6.4	<b>ATS OPTION ONLY:</b> Run full load with utility present through ATS to load		
	6.5	<b>ATS OPTION ONLY:</b> Shutdown utility and verify switchover to battery support through PCS		
	6.6	<b>ATS OPTION ONLY:</b> Run full load with support on battery power only (no utility present)		
	6.7	<b>ATS OPTION ONLY:</b> Turn utility back on, verify ATS switches back to normal utility operation		
	6.8	<b>ATS OPTION ONLY:</b> Charge battery unit to top of charge with utility present and supporting the load, verify stops and idles at top of charge		
<b><u>Phase - 7</u></b> Final Acceptance & Documentation	7.1	Collect test data, sign-off sheets, torque records, calibration certificates		
	7.2	Train operations personnel on normal and emergency procedures		
	7.3	Submit commissioning report and punch-list closure		
	7.4	Provide as-built drawings and configuration backups as required		
	7.5	Transition to warranty/start of service period		

# OPERATION



## 7. Startup

### 7.1 RPSLinkIN General Startup Instructions

#### 1 — Apply Power to the Unit

Move the front selector switch to the “ON / Normal” position.  
The DEIF IE250 should power on.  
Verify that utility/grid power is present.

#### 2 — Utility Hold-Up Behavior

If the correct AC utility voltage is present, the unit will remain powered even if the selector switch is returned to the “OFF” position.

#### Step 1 — Access WebVisu

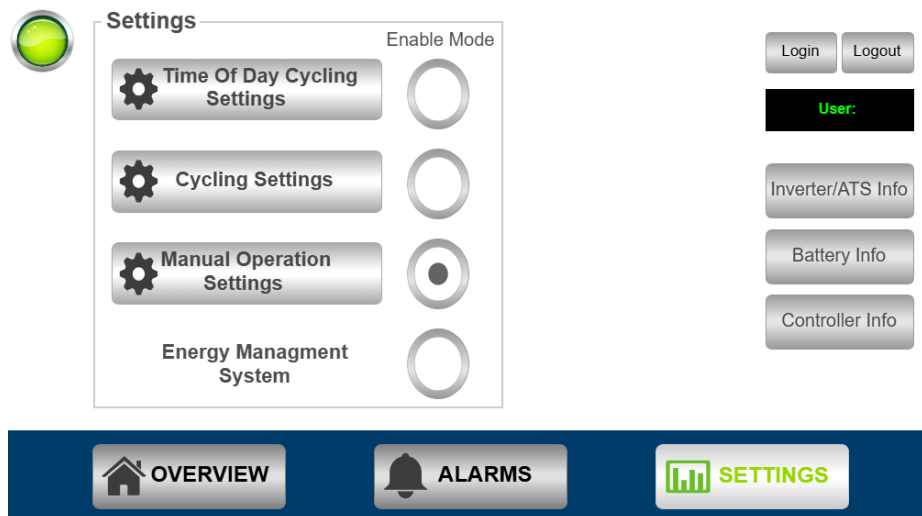
On the front HMI (DEIF IE250), tap the **back arrow**, then select “WebVisu.”

#### Step 2 — Accept Connection

Select “Accept.”

#### Step 3 — Verify Unit Mode

Open the bottom menu and select “Settings.”



#### Step 4 — Select Operating Mode & Setpoints

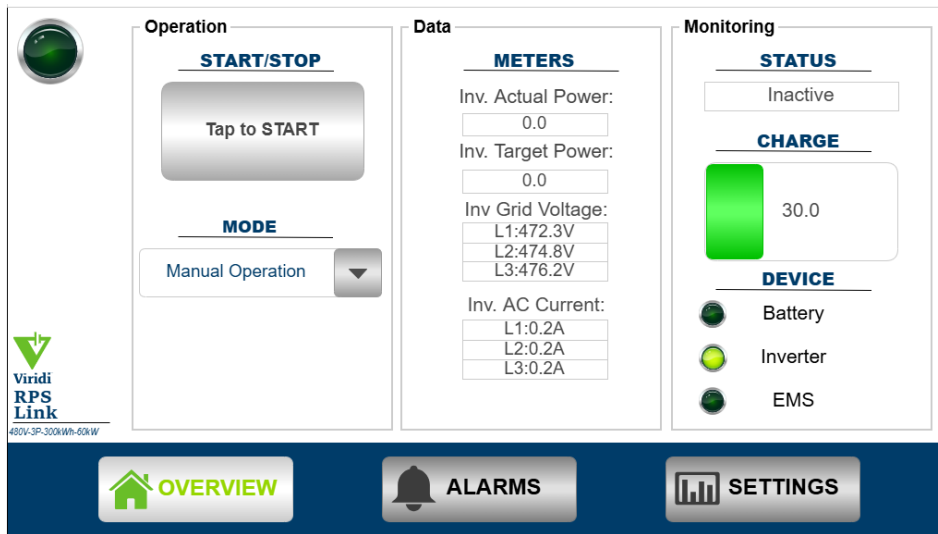
Choose the desired mode and configure the associated setpoints:

1. **Time of Day**  
Allows input of time-of-day schedule, SOC limits, and charge/discharge power setpoints.
2. **Cycling**  
Allows input of power setpoints. The unit automatically cycles from top of charge to bottom of charge repeatedly.
3. **Manual Operation**  
Allows direct power command input. The unit will charge or discharge according to the setpoint.
4. **EMS - *Optional***  
Non-configurable. Unit follows all commands from the external EMS.

The screenshot displays a web-based interface for configuring a system. On the left, a green circular icon with a white arrow points to the right. The main content area is titled "Settings" and features a section labeled "Enable Mode" with four radio button options: "Time Of Day Cycling Settings", "Cycling Settings", "Manual Operation Settings", and "Energy Management System". The "Manual Operation Settings" option is currently selected, indicated by a black dot in the center of its radio button. To the right of the "Enable Mode" section are two buttons: "Login" and "Logout". Below these is a black box with the text "User:" in green. Further down are three buttons: "Inverter/ATS Info", "Battery Info", and "Controller Info". At the bottom of the interface is a dark blue navigation bar with three buttons: "OVERVIEW" (with a house icon), "ALARMS" (with a bell icon), and "SETTINGS" (with a bar chart icon and the text in green).

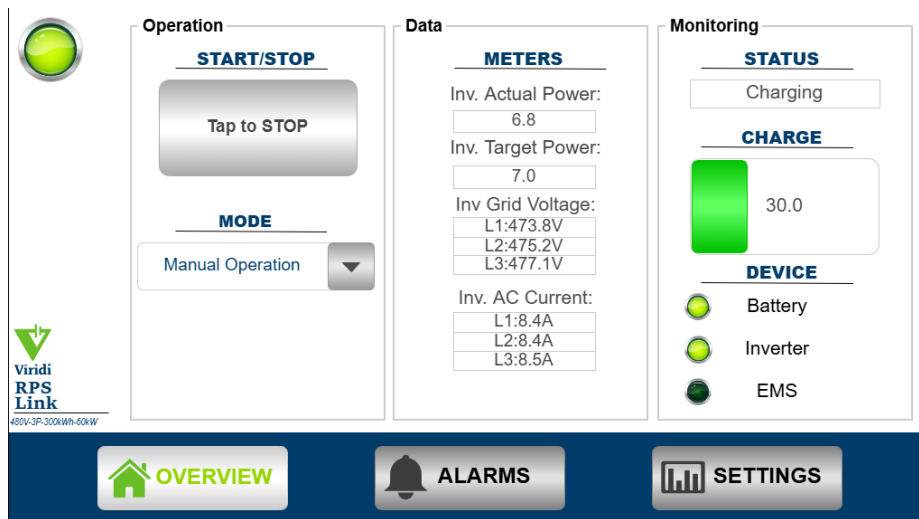
**Step 5 — Start the System**

On the **Overview** tab, select “Tap to Start.”



**Step 6 — Verify Output**

Confirm the unit is producing the **desired power setpoint**.



## 7.2 RPSLinkIN Advanced Settings

### Advanced Settings (Ramp Rate & Fan Mode)

#### Step 7 — Login for Advanced Configuration

To change ramp rate or fan mode:

- Select “Login.”
- **Username:** ADMIN
- **Password:** 1001

The screenshot displays the 'Settings' page of the RPSLinkIN interface. On the left, under 'Settings', there are four items with 'Enable Mode' radio buttons: 'Time Of Day Cycling Settings', 'Cycling Settings', 'Manual Operation Settings', and 'Energy Management System'. The 'Manual Operation Settings' radio button is selected. On the right, under 'Other Settings', the 'Set Power Increase Rate (kW/sec)' is set to 6.0. Below that, the 'Fan Control' is set to 'AUTO'. On the far right, there are 'Login' and 'Logout' buttons, a 'User: Administrator' indicator, and buttons for 'Inverter/ATS Info', 'Battery Info', and 'Controller Info'. A 'Version: 1.2.0.0' label is at the bottom right. At the bottom of the page, there are three navigation buttons: 'OVERVIEW', 'ALARMS', and 'SETTINGS'.

#### Step 8 — Verify Fan Mode

Fan Mode Options:

- **On:** Fan runs continuously.
- **Off:** Fan stays off.
- **Auto:** Fan turns on/off automatically as needed.

This screenshot is identical to the one above, showing the 'Settings' page. The 'Manual Operation Settings' radio button is selected, and the 'Fan Control' is set to 'AUTO'. The 'Set Power Increase Rate (kW/sec)' is 6.0. The 'User: Administrator' indicator is visible, along with 'Login' and 'Logout' buttons. The 'Version: 1.2.0.0' label is at the bottom right. The navigation buttons at the bottom are 'OVERVIEW', 'ALARMS', and 'SETTINGS'.

**Step 9 — Adjust Ramp Rate**

Use the ramp-rate slider to set the desired **kW/sec inverter ramp rate**.

The screenshot displays the 'Settings' page of the Viridi RPSLinkIN interface. On the left, under the 'Settings' header, there are four 'Enable Mode' toggle buttons: 'Time Of Day Cycling Settings', 'Cycling Settings', 'Manual Operation Settings', and 'Energy Management System'. The 'Manual Operation Settings' button is currently active, indicated by a black dot in the center of its circular toggle. To the right, under the 'Other Settings' header, the 'Set Power Increase Rate (kW/sec)' is displayed as '6.0' with a slider below it ranging from 0 to 6. Below the slider is a 'Fan Control' section with an 'AUTO' button. On the far right, there are 'Login' and 'Logout' buttons, a user status bar showing 'User: Administrator', and informational buttons for 'Inverter/ATS Info', 'Battery Info', and 'Controller Info'. A version number 'Version: 1.2.0.0' is shown at the bottom right. A dark blue navigation bar at the bottom contains three buttons: 'OVERVIEW' (with a house icon), 'ALARMS' (with a bell icon), and 'SETTINGS' (with a bar chart icon and highlighted in green).

## 8. SHUT DOWN

### 8.1 RPSLinkIN Shutdown Instructions

- **Step 1 — Stop the System**  
On the **Overview** tab, select **“Tap to Stop.”**  
The system should cease power production, and the batteries will shut down.
- **Step 2 — Verify Utility Status**  
Confirm that **no utility/grid power** is present before proceeding.
- **Step 3 — Turn Off the Main Switch**  
On the front of the unit, toggle the main power switch to the **“OFF”** position.

# MAINTENANCE



## 9. Maintenance

### Note:

- Personnel performing maintenance on the RPSLinkIN must be trained and familiar with the operation and configuration of RPSLinkIN components.
- The BESS must be completely disconnected (external power source in a deenergized state with proper Lock Out – Tag Out [LOTO] devices installed) for all external connections and interfaces prior to any type of maintenance operation.
- Clearing and Cleaning - After installation and commissioning, regularly clean, check ventilation and air exhaust devices. Periodic cleaning is recommended, to start (based on environmental characteristics) a three-month schedule is recommended. After installation and commissioning, regular fan, filters and inspection time and systems checks may be extended at customer discretion.
- If torquing of fitting and/or connections are required, verify the torque wrench has a current calibration sticker.
- If any maintenance is performed that involves disturbing electrical connections, ensure that connections are re-torqued to specification afterwards.

### 9.1 Periodic Scheduled Maintenance

The following is a recommended scheduled maintenance check/verification for the internal/external components of the RPSLinkIN

Task List <i>(see 9.1.1 thru 9.1.5 below for item locations and detail)</i>	Commissioning	Monthly	Quarterly	Semi-Annually	Annually	As Indicated
<b>9.1.1 Sinexcel Inverters</b> - Vacuum all dust and debris from the unit			X			
<b>9.1.1 Sinexcel Inverters</b> - Using low pressure compressed air source, blow air through the mesh and fans			X			
<b>9.1.2 PCS Cabinet</b> - General inspection inside of the enclosure for contaminants and/or dust	X			X		
<b>9.1.2 PCS Cabinet</b> – preventative maintenance check for intake/exhaust filter and exhaust fan					X	
<b>9.1.3 General Electrical and Bolt interface connections</b> - Check for oil, dust, oxidation, and contaminant accumulation	X				X	
<b>9.1.4 Energy Management System Cabinet</b> <i>(optional accessory external to RPSLinkIN)</i> - Check for oil, dust, oxidation, and contaminants accumulating inside of the cabinet	X					X
<b>9.1.5 Torque Checks</b> – Perform thermal check OR torque value check	X				X	

#### 9.1.1 Sinexcel Inverter

General inspection of the Sinexcel inverters, mounting and electrical connections in accordance with the Sinexcel Operations manual (P/N: PWS2-30P-NA). General maintenance shall include but not be limited to:



- Vacuum all dust and debris from the unit
- Using a low pressure compressed air source, blow air through the mesh and fans

Note that the Sinexcel manual suggests quarterly general maintenance but based on the container being sealed and well-ventilated these can be reduced to annual checks, so long as the container doors are not left open for extended periods of time.

### 9.1.2 PCS Cabinet

General inspection inside of the enclosure for contaminants and/or dust. Intake filter and exhaust fan cleaned by specification sheet. General maintenance shall include but not be limited to:

- Exhaust Fan (P/N: 2410-00039, MFG P/N: HF0424414)
- Intake Filter (P/N: 2410-00040, MFG P/N: HG0400404)
- Clean inside of cabinet with low pressure compressed air, visually inspect fan blades.

### 9.1.3 General Electrical and Bolt Interface Connections

Check for oil, dust, oxidation, and contaminants accumulating on or around electrical components

- If oil, dust or contaminants are found on or around electrical components, use low pressure air and a clean microfiber cloth to clean connections
- If oxidation is found on or around electrical components, contact Viridi customer service for oxidation removal procedure.

### 9.1.4 Energy Management System (EMS) Cabinet(s)

*Energy Management System (EMS) is an optional cabinet or cabinets external to the RPSLinkIN components*

Check for oil, dust, and contaminants accumulating inside of the cabinet

- If oil, dust or contaminants are found on or around electrical components, use low pressure air and a clean microfiber cloth to clean connections
- If oxidation is found on or around electrical components, contact Viridi customer service for oxidation removal procedure.

### 9.1.5 Torque Check


Check proper torque for all identified electrical connections. Torque checks can be performed by thermal imaging OR torque mark visual OR torque value checks.

- **Thermal Imaging Check** – perform thermal imaging procedure with unit in operation. Compare with the thermal imaging control provided by Viridi to determine hot spots. If hot spots are located, check torque with proper torque wrench after following disconnect and LOTO procedures. Note: Thermal imaging procedure and control may not be available initially. Viridi to provide information once procedure and control are established.
- **Torque Mark Visual Check** – Any fasteners that have a clear torque mark indicator (paint pen running across fastener head onto electrical component) can be visually inspected to ensure there is no break in the torque mark indicator between the fastener and component. Note: not all fasteners will have torque mark indicators and will need to be checked with thermal imaging or torque value checks.
- **Torque Value Check** – Use a calibrated torque wrench to manually check each electrical connection’s torque value in accordance with the torque values provided in the table below and the corresponding figures/locations

### 9.1.5.1 Torque Check Table

Component	Location(s)	Torque Value [Nm]	Frequency
100A Main Breaker	[A]	9Nm	Annually
50A Inverter Breakers (1 or 2)	[A]	9Nm	Annually
3 Pole Distribution block	[B]	12.5Nm	Annually
1 Pole Distribution block GND	[B]	12.5Nm	Annually
Inverter 3phase connection (1 or 2)	[B]	5.1Nm	Annually
PWD-100M Intelligent Switch Module (Optional)	[C]	20Nm	Annually

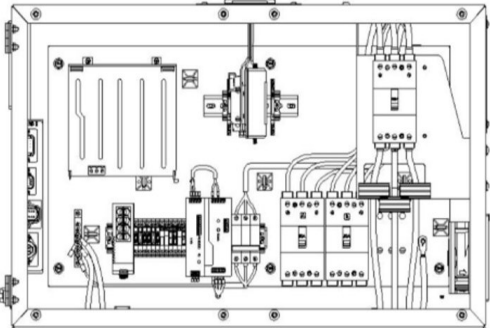
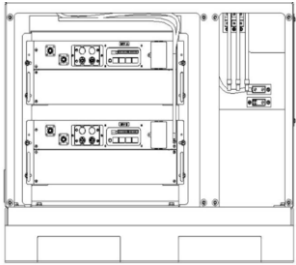
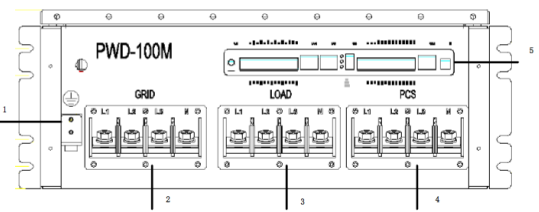
**Warning**



**Verify All External Power Is Off and  
Switches Are in the OFF Position**

### 9.1.5.2 Torque Reference images

The following identifies the specific location and image description of the components requiring torque checks

Location (description)	Image
Location A – Electronics Box. 1 – 100Amp Breaker 2 – 50Amp Breaker	
Location B – Power Skid 3 – 3pole distribution block 4 – 1pole distribution block 5 – Inverter 3 phase connection	
Location C – Intelligent Switch module location (Optional)	

## 9.2 Decommissioning

- Contact Viridi first
  - a) Perform 1 final physical inspection.
  - b) Lower SOC to 30% SOC.
  - c) Go through a shutdown procedure (Reference Section 8.1 Shut Down Instructions)
  - d) Disconnect all exterior/customer connections (Utility connection, ethernet, CANBUS, Fiber connection, etc..).
  - e) Plug / Seal any holes left in the customer connection panel
  - f) Open all Breakers in the Electronics Box
  - g) Visually Validate everything in the unit is powered off

### 9.3 ViSTA Alarm Definition Glossary

Severity	Description	High Level Definition
<b>Critical</b>	High Impact to Functionality	Anything that can cause the unit, or the "Grid" to shut down Ex. E-stop pressed
	Requires Immediate Attention	
<b>Major</b>	High Impact to Functionality	Anything that can cause a skid to go down or a major component to go down. Ex. Inverter alarms or battery DTC alarms
	May not require attention right away	
<b>Warning</b>	Does not impact functionality but if this continues it could cause an alarm	Does not impact on the overall functionality but if this state continues, it will lead to an alarm (either minor, or/and major).

## 9.4 ViSTA Alarms

Here are some of the common ViSTA alarms, their severity, and a brief explanation along with the action needed to resolve them.

Alarm Name	Severity	Triggered By	Description / Take Action
E-STOP Activated	CRITICAL	E-STOP	Emergency Stop pressed. Disengage E-Stop and Power Cycle BESS.
EMS Communication Lost (Optional)	MAJOR	HMI	RPSLINK to Viridi Energy Management System lost. Contact Viridi Customer Service.
ViSTA Connection Lost to Asset	MAJOR	ViSTA Cloud	Communications failure between VCom and ViSTA Cloud. Check wired internet connection (if applicable) and LTE coverage. If an error persists, call Viridi Customer Service.
String "X" BMS Temperature Warning	MAJOR	String "X" BMS	BMS on String X senses battery cell temperature too high. Ensure fan filters are clear and BESS is ventilating properly.
String "X" BMS Temperature High Error	MAJOR	String "X" BMS	BMS on String X senses battery cell temperature too high. Ensure fan filters are clear, and BESS is ventilating properly.
String "X" Inverter AC Bus Over Voltage	MAJOR	String "X" Inverter	Inverter on String X senses AC voltage is too high. Check source voltage (can be done through the Deif HMI or ViSTA). If an error persists, call customer service.
String "X" Inverter AC Bus Under Voltage	MAJOR	String "X" Inverter	Inverter on String X senses AC voltage is too low. Check source voltage (can be done through the Deif HMI or ViSTA). If an error persists, call customer service.
String "X" Inverter AC Bus Over Frequency	MAJOR	String "X" Inverter	Inverter on String X senses AC frequency is above conformance. Check frequency (can be done through the Deif HMI or ViSTA). If an error persists, call customer service.
String "X" Inverter AC Bus Under Frequency	MAJOR	String "X" Inverter	Inverter on String X senses AC frequency is below conformance. Check frequency (can be done through the Deif HMI or ViSTA). If an error persists, call customer service.
String "X" Inverter AC Bus Phase Reversed	MAJOR	String "X" Inverter	Inverter on String X senses AC phase (L1, L2, L3) are incorrect orientation. Check AC wiring to BESS.
String "X" Inverter AC Bus Voltage Asymmetric	MAJOR	String "X" Inverter	Inverter on String X senses AC voltage asymmetry. Check source voltage (can be done through the Deif HMI or ViSTA). If an error persists, call customer service.
String "X" Inverter AC Bus Voltage Abnormal	MAJOR	String "X" Inverter	The inverter on String X senses AC voltage that is too high or too low for operation. Check source voltage (can be done through the Deif HMI or ViSTA). If an error persists, call customer service.
String "X" Inverter AC Bus Phase Lost	MAJOR	String "X" Inverter	The inverter on String X does not sense AC power. Ensure BESS is in the correct operational mode and that String level and system level breakers and contactors are closed. If an error persists, call customer service.
String "X" Inverter AC Overload Timeout	MAJOR	String "X" Inverter	Inverter on String X overload timeout. Load exceeded rated value; code will clear once load is under limit for 5 minutes. If an error persists, call customer service.
String "X" Inverter High Temperature Warning	MAJOR	String "X" Inverter	Inverter on String X senses internal temperature at AC or DC radiator too high. Ensure fan filters are clear, and BESS is ventilating properly.
String "X" Inverter High Temperature Error	MAJOR	String "X" Inverter	Inverter on String X senses internal temperature at AC or DC radiator too high. String offline. Ensure fan filters are clear, and BESS is ventilating properly. String will not function until inverter temperature drops to a safe threshold.
String "X" Inverter High Ambient Temperature Warning	MAJOR	String "X" Inverter	Inverter on String X senses ambient temperature too high. Ensure fan filters are clear, and BESS is ventilating properly.

Alarm Name	Severity	Triggered By	Description / Take Action
String "X" Inverter High Ambient Temperature Error	MAJOR	String "X" Inverter	Inverter on String X senses ambient temperature too high. String offline. Ensure fan filters are clear, and BESS is ventilating properly. String will not function until inverter temperature drops to a safe threshold.
String "X" Discharge Limit Enforcement Fault	MAJOR	String "X" PLC	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Charger Safety Relay Fault	MAJOR	String "X" PLC	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Internal Hardware Fault	MAJOR	String "X" PLC	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Internal Heatsink Thermistor Fault	MAJOR	String "X" PLC	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Internal Software Fault	MAJOR	String "X" PLC	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Highest Cell Voltage Too High Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Lowest Cell Voltage Too Low Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Pack Too Hot Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" High Voltage Interlock Signal Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Pre-charge Circuit Malfunction	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Abnormal State of Charge Behavior	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Internal Communication Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Cell Balancing Stuck Off Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Weak Cell Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>

Alarm Name	Severity	Triggered By	Description / Take Action
String "X" Low Cell Voltage Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Open Wiring Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Current Sensor Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Highest Cell Voltage Over 5V Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Cell ASIC Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Weak Pack Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Fan Monitor Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Thermistor Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" External Communication Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Redundant Power Supply Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" High Voltage Isolation Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Input Power Supply Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Charge Limit Enforcement Fault	MAJOR	String "X" BMS	Error code generated by RPS50 Battery Management System [Orion BMS2]. Call Viridi Customer Service. For error code definitions visit <a href="https://www.orionbms.com/troubleshooting">https://www.orionbms.com/troubleshooting</a>
String "X" Max Charge Reached	Warning	HMI	Notification that Strings "x" hit the max charge. No action is needed.
String "X" Max Discharge Reached	Warning	HMI	Notification that Strings "x" hit the max discharge. No action is needed.

### Additional Alarms with Optional Intelligent Switching Device

Alarm Name	Severity	Triggered By	Description / Take Action
ATS Fault System Fault (Optional)	CRITICAL	HMI	ATS system fault. Please Contact Customer Service.
ATS Fault System Failure (Optional)	CRITICAL	HMI	ATS system failure. Please Contact Customer Service.
ATS Load Overload Timeout (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Load Overload Alarm (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Load Neutral Overcurrent (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Load Voltage Abnormal (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Load Phase Reversed (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Force Bypass (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Galvanic Break Short (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Galvanic Break Open (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Synchronization Failed (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Frequent Switching Fault (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Overload Timeout (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Overload Alarm (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Neutral Overcurrent (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Connection Forbidden (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Power Down (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Neutral Lost (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Phase Lost (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Voltage Abnormal (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Voltage Asymmetric (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Phase Reversed (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.

Alarm Name	Severity	Triggered By	Description / Take Action
ATS Grid Under Frequency (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Over Frequency (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Under Voltage (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.
ATS Grid Over Voltage (Optional)	MAJOR	HMI	ATS has an alarm. Please contact customer service.

## 9.5 Contact Viridi Customer Service

If an issue is identified with the RPSLinkIN, please contact Viridi Customer Support at 1-866-984-7434

The following information will be requested:

<b>Company Name</b>	
<b>Contact Name and Call Back #:</b>	
<b>Serial Number:</b>	
<b>Set Up Details:</b>	
<b>Fault Details, including history relevant to the fault:</b>	

