Installation, Operation, & Maintenance Manual



RPSLinkEX 3Φ

(9920-00082)

Energy Storage System for Outdoor Installations

Revision F: *5-Nov-2026*

Contents

Contents 2
Document Revision: 5
1. Notice 6
2. Safety 8
2.1 Warnings, Cautions, and Important Notes 8
2.2 Battery Precautions 11
2.3 Disposal and Recycling 11
3. Emergency Response Plan 12
3.1 Scenario-Based Emergency Response Considerations for Stationary Installations 13
4. System Overview 17
4.1 RPSLinkEX 3Φ Overview 17
4.1.1 RPSLink Configuration Naming Convention 17
4.2 Fail-Safe Anti-Propagation Technology 17
4.3 Physical Parameters 18
4.3.1 RPSLinkEX 3Φ Dimensions 18
4.3.2 IP Ratings 18
4.4 Specification Table 19
4.5 RPSLinkEX 3Φ Components 20
4.5.1 Main Interface of Product (Front of Device): 20
4.5.2 Inside of User Interface Panel (Front of Device): 21
4.5.3 Interior of Main Cabin of Device: 22
4.6 System Diagram 23
4.7 Example RPSLinkEX 3Φ 1-line Diagrams 25
4.7.1 Example 1: 150kWh ON-Grid BESS 25
4.7.2 Example 2: 150kWh ON / OFF-Grid BESS 26
4.7.3 Example 3: 600kWh ON / OFF-Grid BESS 27
4.8 RPSLinkEX 3Φ Certifications 27
4.8.1 TÜV and UL Label Image 28

5. ViSTA® Cloud 29
5.1 Logging In 29
5.1.1 Email Notification 30
5.2 ViSTA Dashboard 30
5.2.1 Fleet View 30
5.2.2 Unit View 31
5.2.3 Data Over Time 32
5.2.4 Alarm View 33
5.2.5 Time Window 33
6. Installation 35
6.1 Location Considerations 35
6.1.1 Device External Clearance 35
6.1.2 Typical RPSLinkEX 3Φ Installations Clearance 35
6.2 EMI/EMC Considerations 40
6.2.1 Definitions 40
6.3 Handling and Transport 41
6.3.1 General Considerations 41
6.3.2 Loading and Unloading 42
6.3.3 Loading for Transport 42
6.3.4 Punch-Out Area Designation 43
6.3.5 Cable Interface 44
6.4 Wiring Installation Instructions 44
6.4.1 Sinexcel Intelligent Transfer Switch 44
6.4.2 Utility and Load Connections with Transfer Switch 44
7. Commissioning 45
7.1 Introduction 45
7.2 RPSLinkEX 3Φ Commissioning Checklist 45
8. Startup 50
8.1 RPSLinkEX 3Φ General Startup Instructions 50
8.2 RPSLinkEX 3Φ Advanced Settings 53

9. Shut Down 55
9.1 RPSLinkEX 3Φ Shutdown Instructions 55
10. Maintenance 57
10.1 Periodic Scheduled Maintenance 57
10.2 Sinexcel Inverter 58
10.3 System Enclosure 58
10.4 General Electrical and Bolt Interface Connections 58
10.5 Energy Management System (EMS) Cabinet(s) 59
10.6 Working Spaces 59
10.7 Torque Check 59
10.7.1 Torque Check Table 60
10.7.2 Torque Reference Images (Locations). 60
10.8 Decommissioning 61
10.9 Cleaning 62
10.10 ViSTA Alarm Definition Glossary 62
10.11 ViSTA Alarms 63
10.12 Troubleshooting 66
10.13 Contact Viridi Customer Service 67

Document Revision:

Item	Description of Revision	Current Rev	Date Released (DD-MM-YY)	Revision Initiated By:
1	1. Initial Release under revision control	A	13-FEB-26	J.A. Foulis
2	1. Added footnotes to the table found on paragraph 4.4 (Performance) 2. Paragraph 4.5.2 added call-out of Ethernet Connection 3. Updated Interconnection drawing in paragraph 4.7.1, 4.7.2 and 4.7.3 4. Added paragraph 6.1.1, 6.1.2 and concept drawing for Device External Clearance 5. Added paragraph 6.3.3 Punch-Out Area Designation with picture and paragraphs 6.3.4, 6.3.5 and 6.3.6 6. Renumbered paragraph 6.3.5 to Paragraph 7 7. Paragraph 7 enhanced to seven (7) Phases with detailed steps 8. Enhanced paragraphs 9.1.5 and 9.1.5.1 [Torque]	B	17-APR-26	J.A. Foulis
3	Update the following: 1. Performance Table with associated notes (Table found in paragraph 4.4) 2. Certification Table (Found in paragraph 4.8)	C	29-MAY-26	J.A. Foulis
4	1. Added paragraph 3.1 (Scenario, B, and C) 2. Added paragraph 6.3.2 3. Added cautions and warnings to paragraph 6.3.1 4. Paragraph 4.8, removed reference to NPFA 855 5. Changed RPS50 to rps50 6. Rewrite of paragraph 3.1	D	18-JUNE-26	J.A. Foulis
5	1. Paragraph 6.3.2, removed reference to trailing and lifting the unit onto a trailer 2. Paragraph 4.8.1, showed image of TÜV and UL Label 3. Aligned Cautions and Warnings with LinkIN where applicable 4. Added 9.1.5 Working Spaces 5. Provided enhanced Contact information (phone and email) data 6. Updated Troubling Shooting (paragraph 10.12) 7. Significant reformatting of the document	E	30-JULY-26	J.A. Foulis
6	Update DC-Usable Rating	F	5-Nov-2026	N.S. LaMendola

1. Notice

As an express condition of the Viridi Parente warranty and to encourage utilization of industry best practices, Viridi requires that the installation, mobilization, and operation of the RPSLinkEX 3Φ 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:

- **Customer Service, Parts and Warranty: 1-866-984-7434**
- **Parts Ordering: parts@viridiparente.com**
- **Service Issues: service@viridiparente.com**
- **Warranty Claims: warranties@viridiparente.com**
- **Sales: 1-716-968-8658; email: sales@viridiparente.com**
- **Customer Service: 1-866-984-7434; email: service@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 RPSLinkEX 3Φ, all personnel handling or operating the RPSLinkEX 3Φ 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 RPSLinkEX 3Φ 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.
- This Installation, Operations & Maintenance Manual should be considered part of the RPSLinkEX 3Φ 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 RPSLinkEX 3Φ.

A **CAUTION** signifies a situation whereby damage to the RPSLinkEX 3Φ or associated parts could be caused by improper operation of the RPSLinkEX 3Φ.

Symbols Used in This Manual

	Warning/Cautions		Wear Gloves
	Shock Hazard		Quality
	General Safety		Tip

General Precautions

	**COMPETENT PERSONNEL**: The RPSLinkEX 3Φ 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, block or restrict the air vents and allow adequate space around the RPSLinkEX 3Φ for ventilation.
	**ELECTRICAL SAFTEY**: Follow all applicable electrical codes and standards. Ensure proper grounding and bonding of the system components. Use appropriate Personal Protective Equipment (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 SAFTEY**: 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.
	**EARTH CONNECTION**: The RPSLinkEX requires a connection to an earth system. The RPSLinkEX must always be connected to an external earth system.

Cautions and Warnings

	**CRUSH HAZARD**: The RPSLinkEX 3Φ is a crush hazard when elevated above ground level, and the area below the RPSLinkEX 3Φ should be cleared before hoisting the RPSLinkEX 3Φ above ground level.
	**ELECTROCUTION HAZARD:** The generator earth connection must be connected to a suitable earth point either on the equipment to which it is installed, to a recognized earth point on a building, or to an earth spike correctly installed in the ground. Correct earth bonding is an essential safety requirement of the BESS.
	**DANGER OF FALLING**: Do not stand on top of the RPSLinkEX 3Φ. The surface may be slippery, and cause damage to the device.
	**TRIP HAZARD:** Take care not to trip over exposed cables in the area around the RPSLinkEX. Install road plates to cover exposed cables where necessary.
	**HEAVY ITEM**: The RPSLinkEX is heavy; care must be taken when handling the unit to avoid injury.

	To prevent the risk of electric shock, Arc Flash, or equipment damage, ensure that the system is completely de-energized, and all power sources are fully disconnected before performing any internal maintenance on the Battery Energy Storage System (BESS). This includes: • Confirming that the toggle switch and 24v disconnect are in the **OFF** position. • Ensuring that all breakers, including those on the BESS system and common bus (if applicable), are in the **open (OFF)** position. • Verify that all incoming and outgoing power sources are disconnected/unplugged.
	**SHOCK HAZARD**: Authorized access only. Do not remove panels to access internal components of the RPSLinkEX. There are no user-serviceable parts inside the RPSLinkEX 3Φ. Only qualified, trained 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.
	Do not allow connectors to drop or to be dragged across hard surfaces.
	Make sure that dust caps are fitted and secure when not in use.
	Do not apply tension to connectors.
	Do not allow cable, connections or the RPSLinkEX to lie in or underwater.
	Do not apply tension to or overtighten connectors.
	Do not make or break connections while the RPSLinkEX is carrying a load.
	The RPSLinkEX has a maximum power capacity of 30 KW. Do not attempt to exceed the stated maximum power capacity.
	The RPSLinkEX Dielectric Withstand Test Voltage is 1960Vac.
	**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.
	The RPSLinkEX 3Φ has a NEMA 3R rating, which provides protection from falling rain, dirt, and sleet and will be undamaged by the external formation of ice on the enclosure. Do not hose down the RPSLinkEX 3Φ or pressure wash, as it is not rated for hose directed water.

⚠	All areas containing ESS shall provide proper egress away from the area in accordance with the local building codes.
⚠	Fire control and suppression is required for rooms or areas containing ESS, unless modified by applicable code or AHJ approval.
⚠	System Alarms and Annunciation for the installation shall comply with applicable fire codes.
⚠	Additional fire protection is managed through the RPSLinkEX telecom device and ViSTA notification system. This system is programmed to send notifications to authorized users in the event of any abnormal functioning or temperature deviation so that immediate appropriate action can be taken. It is recommended that all Viridi BESS be operated with the ViSTA notification system.
⚠	Areas containing the ESS shall be provided with smoke detection or radiant energy-sensing systems unless modified by code or approved by the AHJ. The systems shall comply with applicable fire codes.

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 RPSLinkEX 3Φ 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 RPSLinkEX 3Φ 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 RPSLinkEX 3Φ, 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 RPSLinkEX 3Φ includes internal fault mechanisms designed to prevent failures and subsequent risk hazards. However, Viridi cannot guarantee the safe performance of the RPSLinkEX 3Φ 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**: Seek Immediate medical Attention

If a fire breaks out at or near the location of the RPSLinkEX 3Φ, 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 RPSLinkEX 3Φ unit, suitable extinguishing agents, including water or an ABC fire extinguisher, should be utilized. Additionally, if a fire occurs adjacent to the RPSLinkEX 3Φ, 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 RPSLinkEX 3Φ, 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 RPSLinkEX 3Φ is on fire, do not attempt to extinguish it, immediately evacuate people from the premises.

- WARNING: Explosion is possible if the battery pack within the RPSLinkEX 3Φ experiences temperatures above 150°C (302°F). When a battery pack is burning, it will leak poisonous gases. Do not approach the unit.

- To deal with an accident with the RPSLinkEX 3Φ on land, refer to the site-specific emergency response plan, if available and move the damaged RPSLinkEX 3Φ 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 RPSLinkEX 3Φ 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 Service Line: 1–866–984-7434**
        - **Email: service@viridiparente.com**

3.1 Scenario-Based Emergency Response Considerations for Stationary Installations

The RPSLinkEX 3Φ is a stationary battery energy storage system intended for permanent, pad-mounted installation in residential, commercial, and industrial settings. Because site conditions vary significantly based on the proximity of occupied structures, the number of units installed at a single site, and the degree of site supervision, the following representative installation scenarios are provided to demonstrate how emergency response considerations may vary by context while maintaining consistent hazard controls, system safeguards, and coordination with emergency responders.

These scenarios are illustrative only and do not replace the authority or operational discretion of the Fire Department. In all cases, emergency response actions all align with Section 3 of this Emergency Response Plan and applicable codes and standards.

- ***Scenario A: Single or Small Multi-Unit Installation Near Occupied Structures***

  Description:
  The RPSLinkEX 3Φ is installed as a single unit or small multi-unit array (e.g., one or two units) on a concrete pad in a residential or mixed-use setting, with a dwelling, place of assembly, or other occupied structure located within or near the exposure area surrounding the installation.

  Primary Considerations:
  - Proximity of the installation to an occupied structure, egress path, or public way
  - Heightened sensitivity to life safety for nearby residents, occupants, or bystanders
  - Limited standoff distance depending on lot size and site layout

  Emergency Response Considerations:
  - An abnormal condition may first be identified through the ViSTA Cloud remote monitoring platform, which is capable of sending alarm notifications to Viridi's service team and to authorized building or site operators.
  - In the event of a fire or suspected battery incident, occupants of nearby structures and bystanders shall be evacuated or sheltered in place at the direction of emergency responders, consistent with applicable life safety codes.
  - If safe to do so, the external emergency stop (E-stop) located on the exterior of the enclosure may be activated to electrically isolate the system.
  - Responders should be aware that the RPSLinkEX 3Φ's Battery Management System (BMS) is designed to automatically open the main contactors and de-energize the battery pack upon detection of a cell-level fault or if pack temperature exceeds 45°C (113°F), and this isolation may have already occurred prior to arrival.
  - Firefighting response shall follow a defensive strategy consistent with Section 3, prioritizing protection of the nearby occupied structure and responder safety.
  - Cooling water may be applied defensively to the exterior of the unit if deemed necessary by responding fire department personnel, in order to limit heat transfer toward the adjacent structure.
  - The rps50 battery pack's Fail-Safe Anti-Propagation architecture has been demonstrated under UL 9540A testing to halt cell-to-cell thermal propagation with no detectable release of heat, sparks, smoke, or flames; this is relevant to responder risk assessment regarding exposure protection but does not change the defensive firefighting strategy described above.
  - Scene control, evacuation distances, and suppression tactics remain under the authority of the responding fire department.

- ***Scenario B: Commercial or Industrial Multi-Unit Array Installation***

Description:
Multiple RPSLinkEX 3Φ units are installed together at a single commercial or industrial site, arranged in one of the multi-unit clearance configurations described in Section 6 of this manual, to support a larger aggregate energy capacity.

Primary Considerations:

- Multiple energized units present at a single installation site
- Potential for an incident at one unit to affect responder access to or around adjacent units
- Need for clear access roads and maintained clearance between units for responder movement
- Greater aggregate energy capacity at the site relative to a single-unit installation

Emergency Response Considerations:

- An abnormal condition may first be identified through the ViSTA Cloud remote monitoring platform, which is capable of sending alarm notifications to Viridi's service team and to authorized building or site operators.
- Upon arrival, emergency responders shall be informed of the total number of units at the site and which unit, if any, is the source of the incident.
- If safe to do so, the external E-stop on the affected unit's enclosure may be activated to electrically isolate that unit. Each unit at the site has its own independent E-stop and BMS and isolating one unit does not de-energize adjacent units.
- Responders should be aware that each unit's BMS is designed to automatically open its main contactors and de-energize its battery pack upon detection of a cell-level fault or if pack temperature exceeds 45°C (113°F), independent of the status of adjacent units.
- Firefighting response shall follow a defensive strategy consistent with Section 3, with priority given to protecting unaffected units, maintaining responder access along the site's access road, and protecting nearby exposures.
- Scene control, evacuation distances, and suppression tactics remain under the authority of the responding fire department.

- ***Scenario C: Unattended or Remote Site Operation***

Description:
The RPSLinkEX 3Φ is installed at a site that is unattended for extended periods, such as a remote commercial or industrial property, with no on-site personnel present at the time an abnormal condition is detected.

Primary Considerations:

- Delayed human detection of an abnormal condition in the absence of on-site personnel
- Reliance on the system's internal protections, alarms, and remote monitoring
- Importance of responder safety upon arrival, absent any on-site personnel to brief them

Emergency Response Considerations:

- An abnormal condition may first be identified through the ViSTA Cloud remote monitoring platform, which is capable of sending alarm notifications to Viridi's service team and to authorized building or site operators.
- Upon arrival, emergency responders shall be informed that the unit may be energized and that lithium-ion battery hazards may be present, even though no on-site personnel are available to provide a briefing.
- The external E-stop, located on the exterior of the enclosure, provides a means of electrical isolation without opening the enclosure, if responders determine it is safe and appropriate to do so.
- Responders should be aware that the system's BMS is designed to automatically open the main contactors and de-energize the battery pack upon detection of a cell-level fault or if pack temperature exceeds 45°C (113°F), and this isolation may have already occurred prior to arrival, independent of any manual response.
- If a battery pack is involved in fire, no suppression shall be attempted, and the incident shall be managed defensively with exposure protection as outlined in Section 3.

- Site access restrictions described in Section 6 of this manual (fencing, restricted entry) are intended to limit unauthorized access during normal unattended operation; responders should anticipate the need to access the site through these controls during an emergency.
- Following any unattended incident, the unit shall remain out of service until inspected and cleared by Viridi or an authorized service center.

➢ **General Notes Applicable to All Scenarios**

- Emergency response actions shall always prioritize life safety and responder safety.
- Each RPSLinkEX 3Φ unit is equipped with its own independent E-stop and BMS; in multi-unit installations, isolating one unit does not isolate adjacent units.
- Firefighting tactics, evacuation distances, and scene control remain at the discretion of the responding fire department.
- The external E-stop provides a means of electrical isolation without opening the enclosure. Activation does not substitute for full lockout/tagout procedures, which must be performed by qualified personnel prior to any post-incident inspection or service activity.
- This scenario-based guidance is intended to supplement, not replace, site-specific emergency response planning where such plans are available.

➢ **Contact Viridi Customer Service for emergency support: 1-866-984-7434 | 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 RPSLinkEX 3Φ Overview

The RPSLinkEX 3Φ is a modular Lithium-Ion Battery Energy Storage System for outdoor installation in residential, commercial and industrial zones. It is designed to scale in increments of approximately 50kWh to fit the 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

Main Enclosure – containing the full componentry of the system, including the rps50 battery pack.

4.1.1 RPSLink Configuration Naming Convention

RPSLinkEX-480V-3Φ-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 DC-Nameplate energy storage. RPS50 packs are cTÜVus Listed to the UL1973 standard.

Under UL9540A Ed. 5 testing, which involves intentionally heating a cell within the pack to the point of thermal failure, the pack met all five performance criteria of the residential indoor floor-mounted standard (the most severe test procedure). Test demonstrated that Viridi's passive technology halts cell-to-cell thermal propagation with no detectible 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.



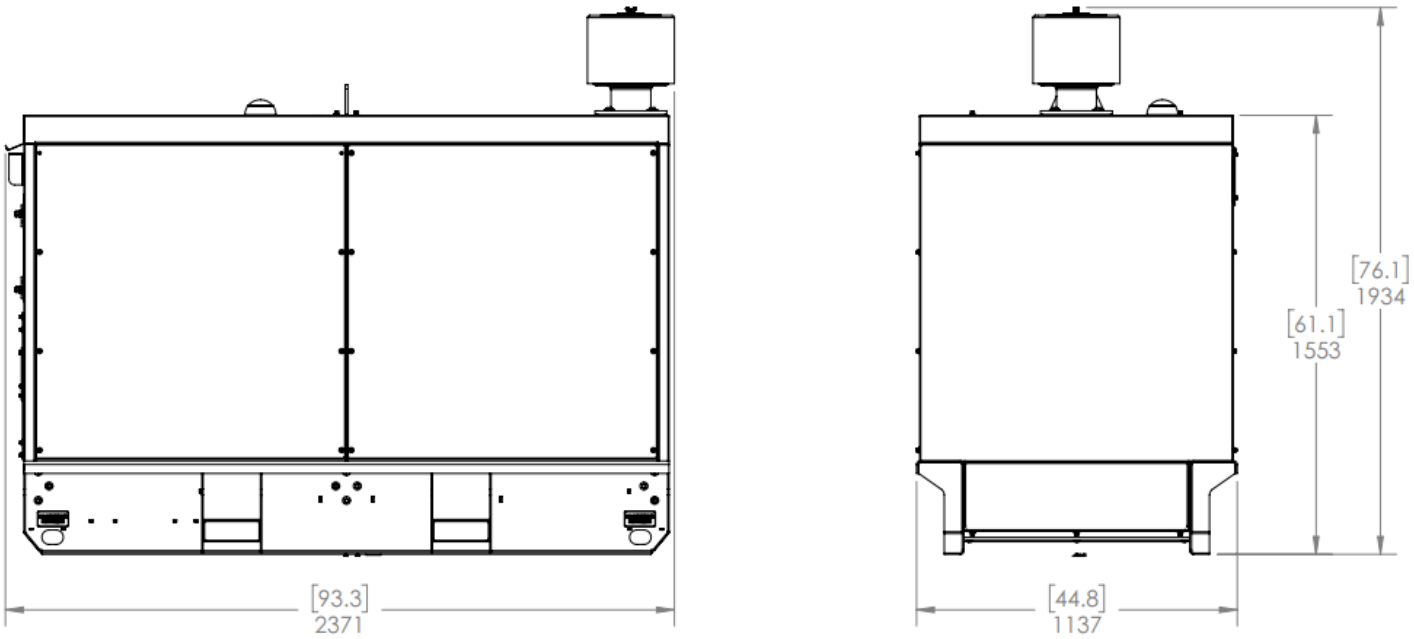
4.3 Physical Parameters

RPSLinkEX 3Φ is a fully contained outdoor system. Note dimentioning below is as follows:

[inches]

Milimeters

4.3.1 RPSLinkEX 3Φ Dimensions



4.3.2 IP Ratings

The rps50 battery pack carries an IP55 rating

The RPSLinkEX 3Φ enclosure passed a NEMA 3R weatherproof test.

4.4 Specification Table

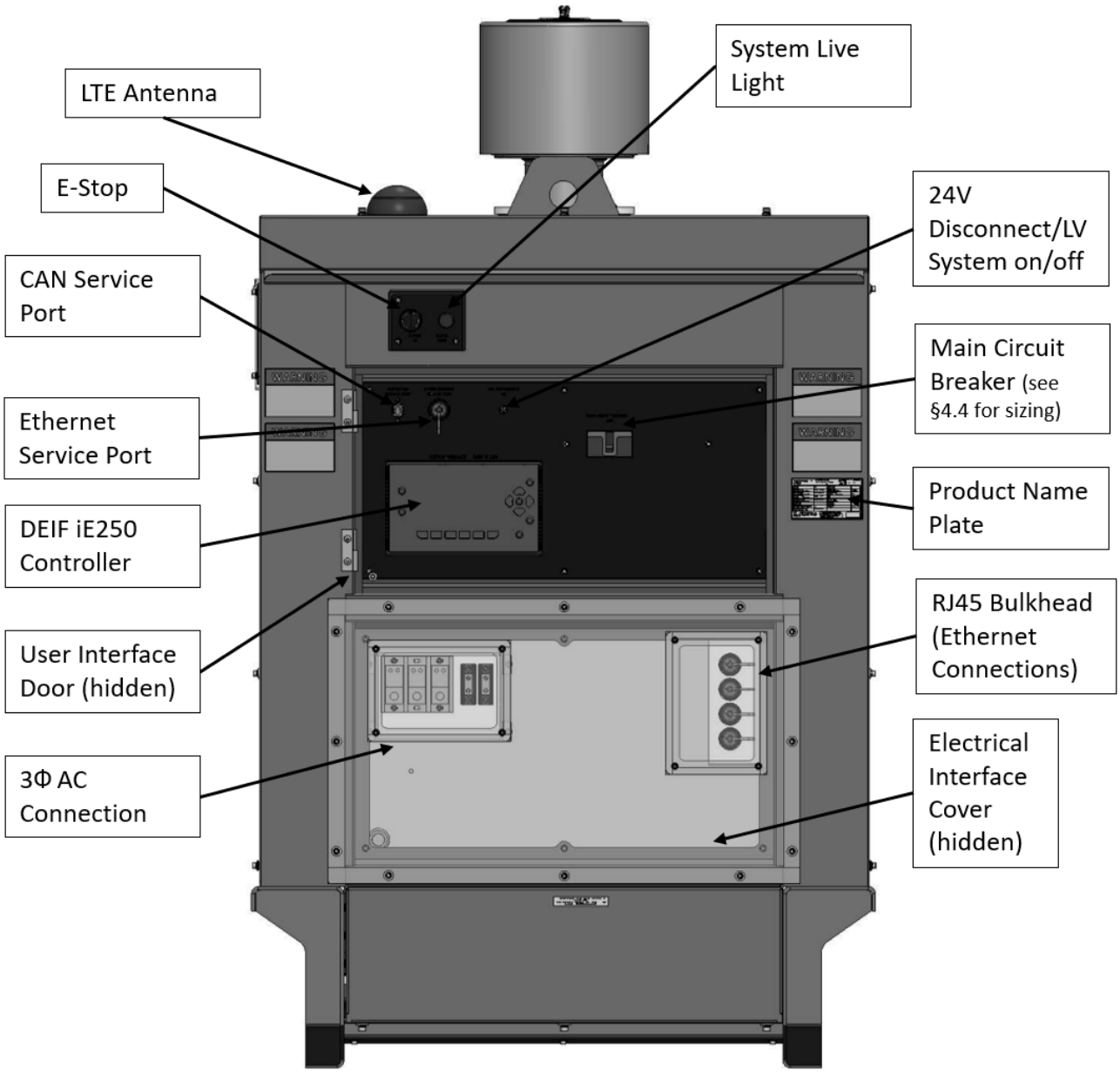
Model	480V-3p-150kWh-30kW	480V-3p-100kWh-20kW	208V-3p-150kWh-30kW	208V-3p-100kWh-20kW	208V-3p-50kWh-10kW
System Contains	Sinexcel PWS2-30P-NA Inverter, qty=1	Sinexcel PWS2-30P-NA Inverter, qty=1	Sinexcel PWS2-30P-NA Inverter, qty=1	Sinexcel PWS2-30P-NA Inverter, qty=1	Sinexcel PWS2-30P-NA Inverter, qty=1
			30kVA 480/208 XFMR, qty=1	30kVA 480/208 XFMR, qty=1	30kVA 480/208 XFMR, qty=1
	RPS50 Packs, qty=3	RPS50 Packs, qty=2	RPS50 Packs, qty=3	RPS50 Packs, qty=2	RPS50 Pack, qty=1
DC-Nameplate Capacity	146.7 kWh	97.8 kWh	146.7 kWh	97.8 kWh	48.9 kWh
BOL DC-Usable Capacity	124.8.2 kWh	83.2 kWh	124.8 kWh	83.2 kWh	41.6 kWh
Max Continuous AC Power, Charge/Discharge	30 kW	20 kW	30 kW	20 kW	10 kW
Operating Voltage	480VAC 3Φ, 3W (Delta Configuration)	480VAC 3Φ, 3W (Delta Configuration)	208VAC 3Φ 4W (Wye Configuration)	208VAC 3Φ 4W (Wye Configuration)	208VAC 3Φ 4W (Wye Configuration)
Max Continuous AC Current, Charging/Discharging	36.1 A	24.1 A	83.3 A	41.6 A	27.8 A
PWS2-30P-NA Fault Current Contribution [AC side short circuit current on-grid]	130A / 100 ms				
Maximum Overcurrent Device Rating	60A	60A	125A	125A	125A
Allowed Conductor Type & Size Range	Copper-Aluminum Alloys Stranded Core at 2-8 AWG	Copper-Aluminum Alloys Stranded Core at 2-8 AWG	Copper-Aluminum Alloys Stranded Core at 2-8 AWG	Copper-Aluminum Alloys Stranded Core at 2-8 AWG	Copper-Aluminum Alloys Stranded Core at 2-8 AWG
Recommended Conductor Sizing	6 AWG	6 AWG	2 AWG	6 AWG	6 AWG
Grounding Requirements	The grounding of the system and related components must comply with all applicable local electrical code of the installation.				
Auxiliary Power Requirements	RPSLinkEX is an autonomous unit requiring no auxiliary power fed from outside BESS enclosure				
Backup Power	External Sinexcel PWD series Intelligent Transfer Switch required for RPSLink to auto-switch to off-grid mode and deliver power through a grid outage				
Operating Temperature Range [1]	14°F to 113°F / -10°C to 45°C				
Battery Pack Primary Lifecycle [2]	Approx 4,000 cycles to 80% of Beginning-of-Life (BOL) DC-Usable kWh Rating				
Communication / Telematics	VCom IoT device uses WIFI / LAN / 5G / LTE to report EMS and performance data to Viridi ViSTA®.				
Dimensions (Overall) (Length x Width x Height)	93.33-inch x 44.757-inch x 76.05-inch 2370.60-mm x 1136.65-mm x 1931.67-mm				
System Weight	5150 Pounds, 2336 Kg (Not to Exceed)	4050 Pounds, 1837 Kg (Not to Exceed)	5600 Pounds, 2540 Kg (Not to Exceed)	4500 Pounds, 2041 Kg (Not to Exceed)	3400 Pounds, 1542 Kg (Not to Exceed)

[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. ***Note***: Charging and discharging is unconstrained within operating temperature 0°C to 45°C. Outside of that temperature range, BMS derates maximum charging and discharging.

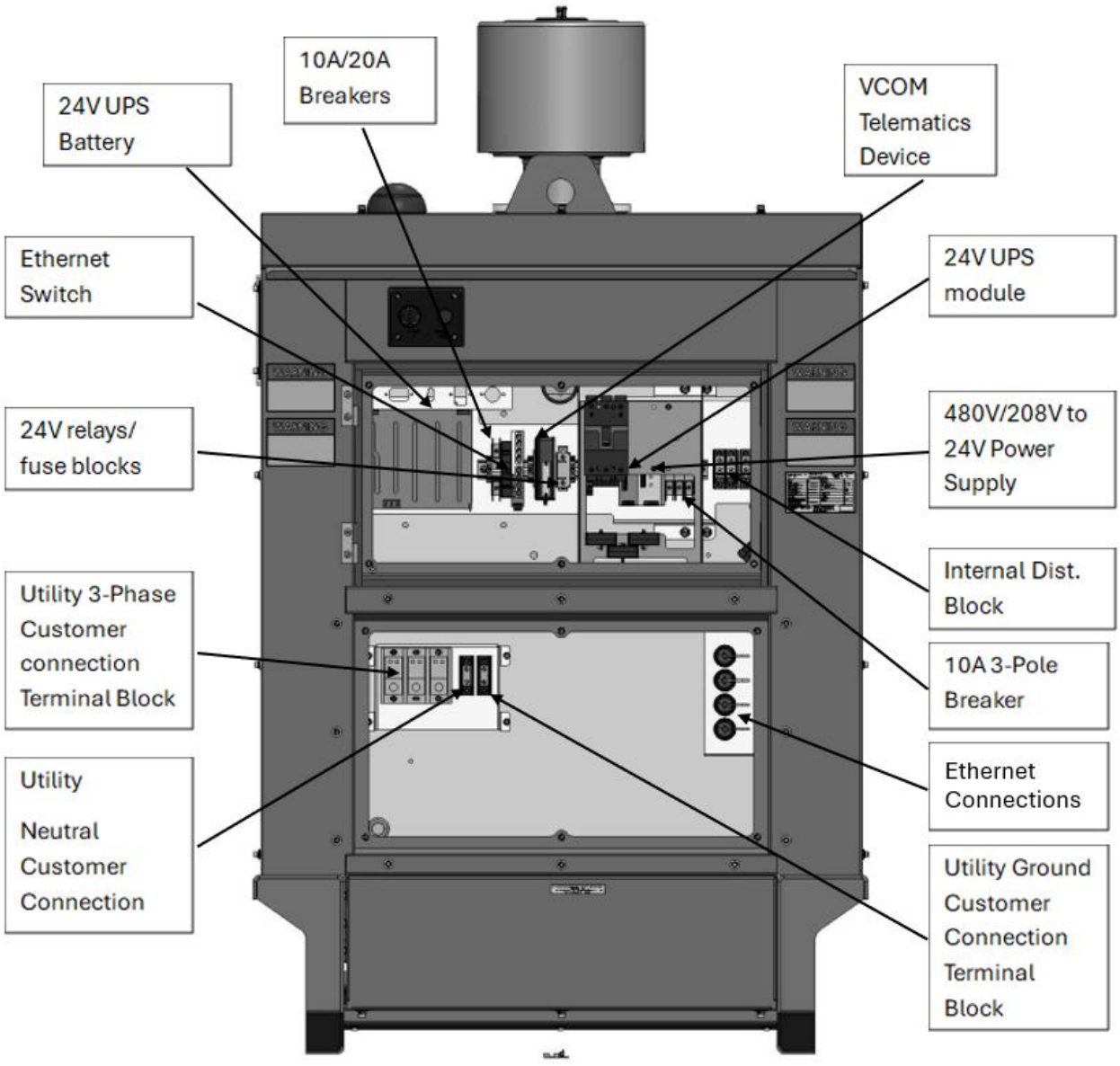
[2] Cycle life can be optimized for individual applications and operating conditions (depth of discharge, duty cycle, temperature, charge/discharge rate).

4.5 RPSLinkEX 3Φ Components

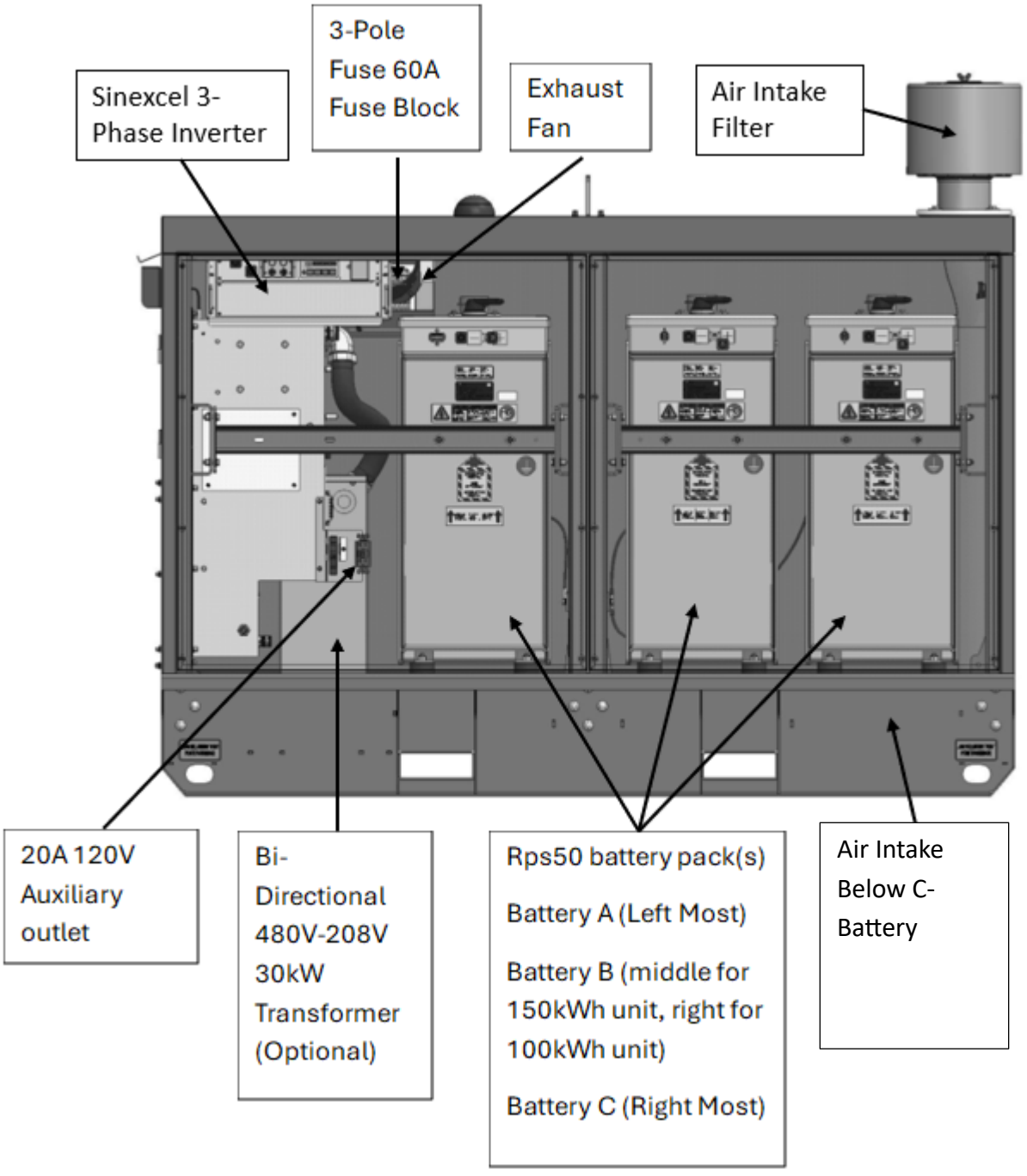
4.5.1 Main Interface of Product (Front of Device):



4.5.2 Inside of User Interface Panel (Front of Device):

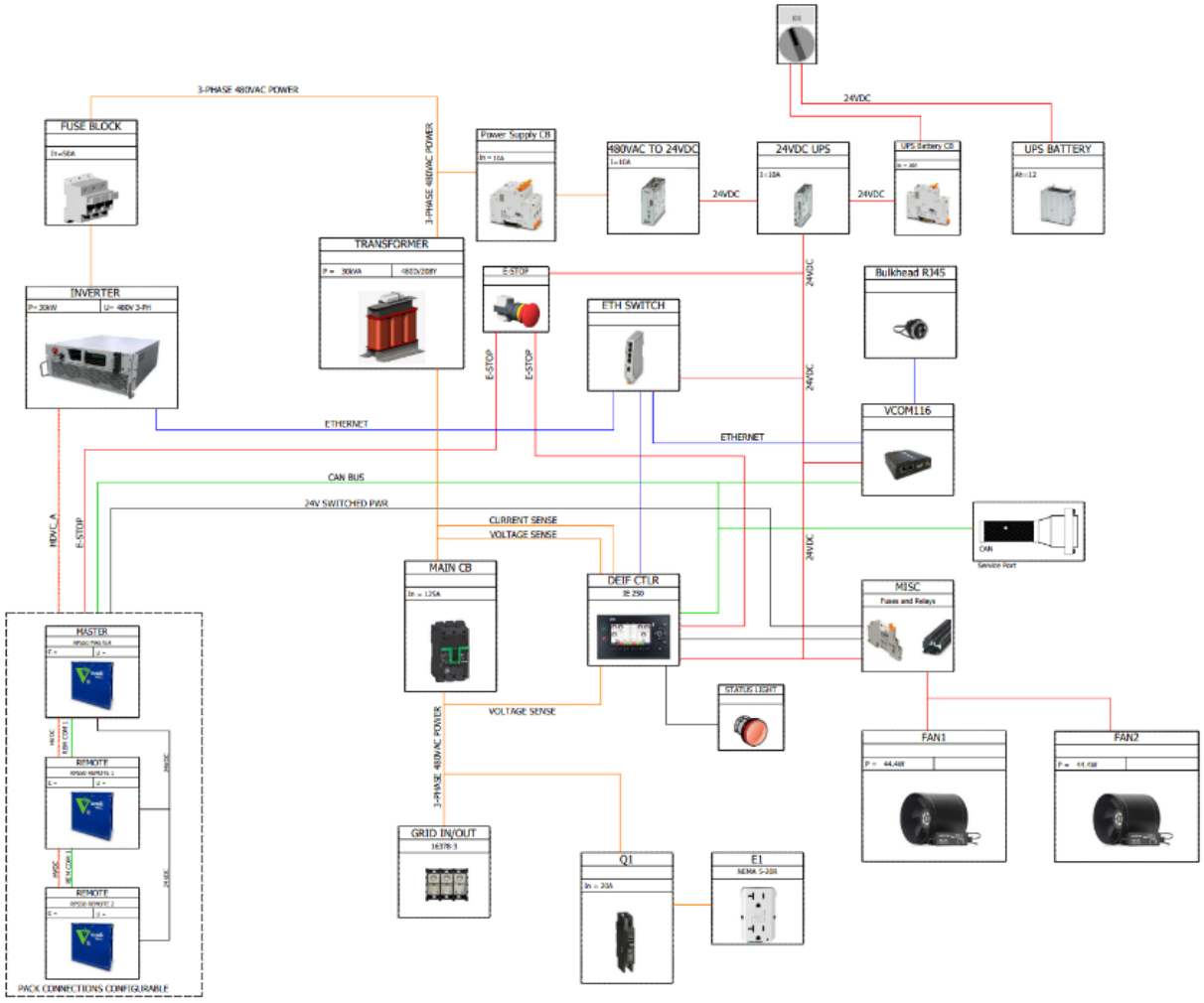


4.5.3 Interior of Main Cabin of Device:



4.6 System Diagram

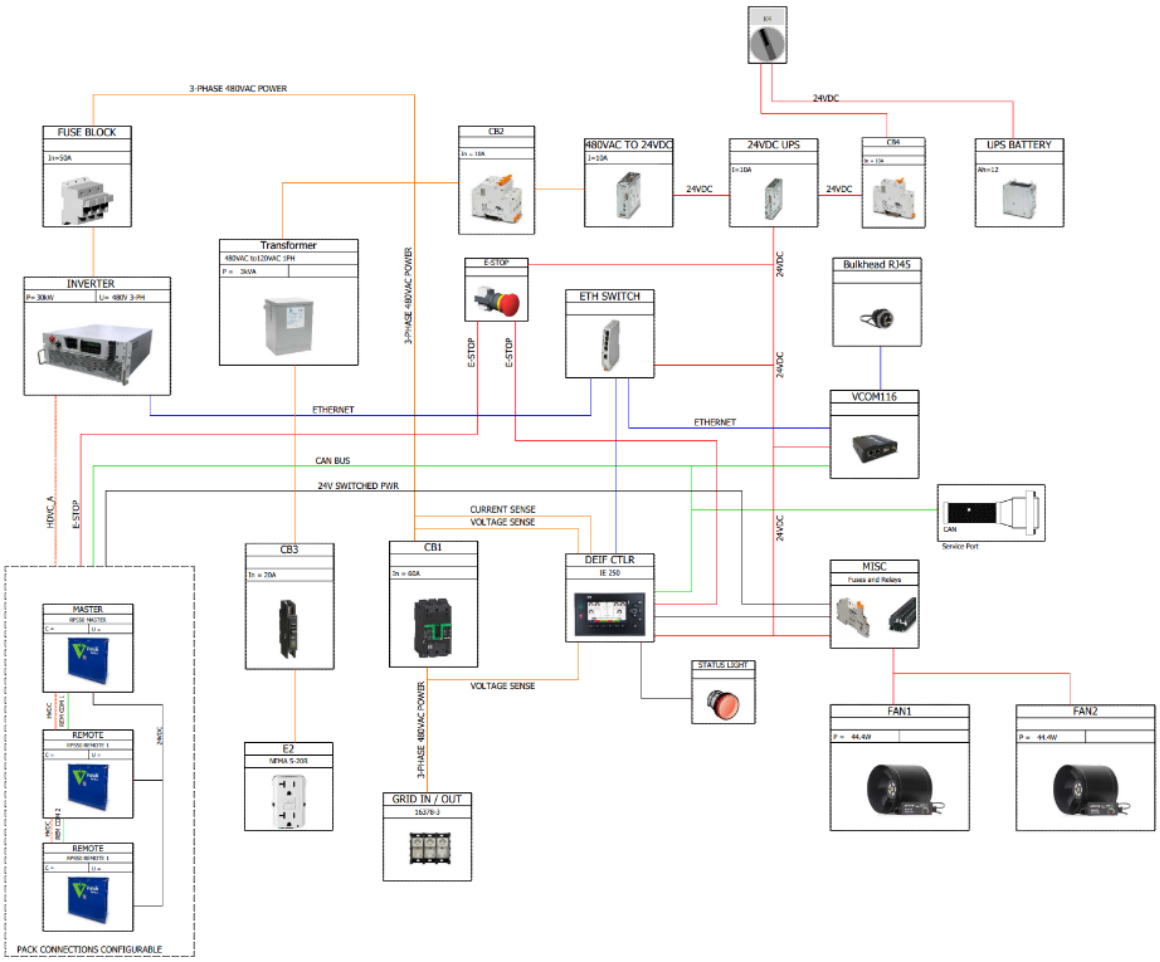
Note: Below are the System Diagrams for the 208V-3Φ-150kWh-30kW version and the 480V-3Φ-100kWh-20kW of the RPSLinkEX 3Φ. If another version is needed, it is available via request to Viridi.



RPSLinkEX 3Φ-208V-3Φ-150kWh-30kW System Diagram

- NEC (National Electrical Code, 2023 edition, Article 250.53(B)):
  - Ground rods must be separated by at least 6 feet.

- CSA (Canadian Standards Association, 2023 edition, Rule 10-102 (2)):
  - Ground rods must be separated by at least 3 meters and driven at least 3 meters into the ground



RPSLinkEX 3Φ -480V-3Φ-100kWh-20kW System Diagram

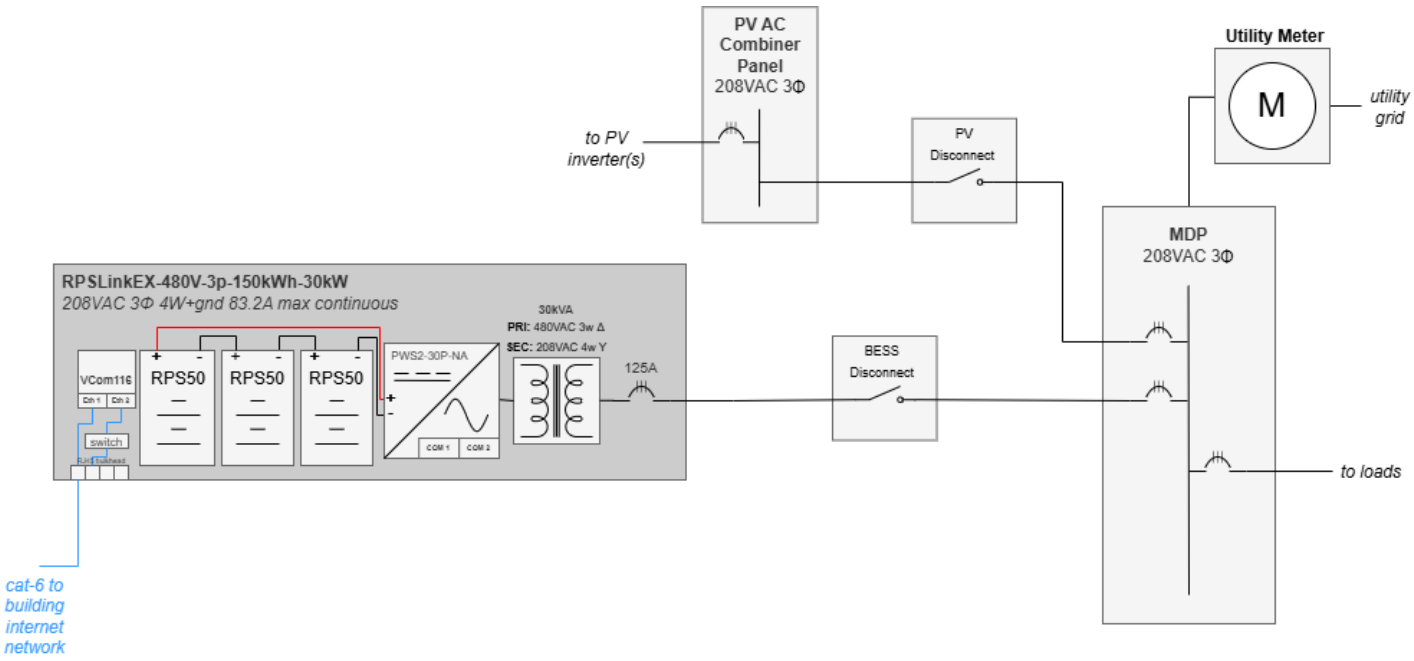
- NEC (National Electrical Code, 2023 edition, Article 250.53(B)):
  - Ground rods must be separated by at least 6 feet.
- CSA (Canadian Standards Association, 2023 edition, Rule 10-102 (2)):
  - Ground rods must be separated by at least 3 meters and driven at least 3 meters into the ground

4.7 Example RPSLinkEX 3Φ 1-line Diagrams

RPSLinkEX 3Φ 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 the Viridi Technical Sales Department at 716-968-8658 for configuration assistance.

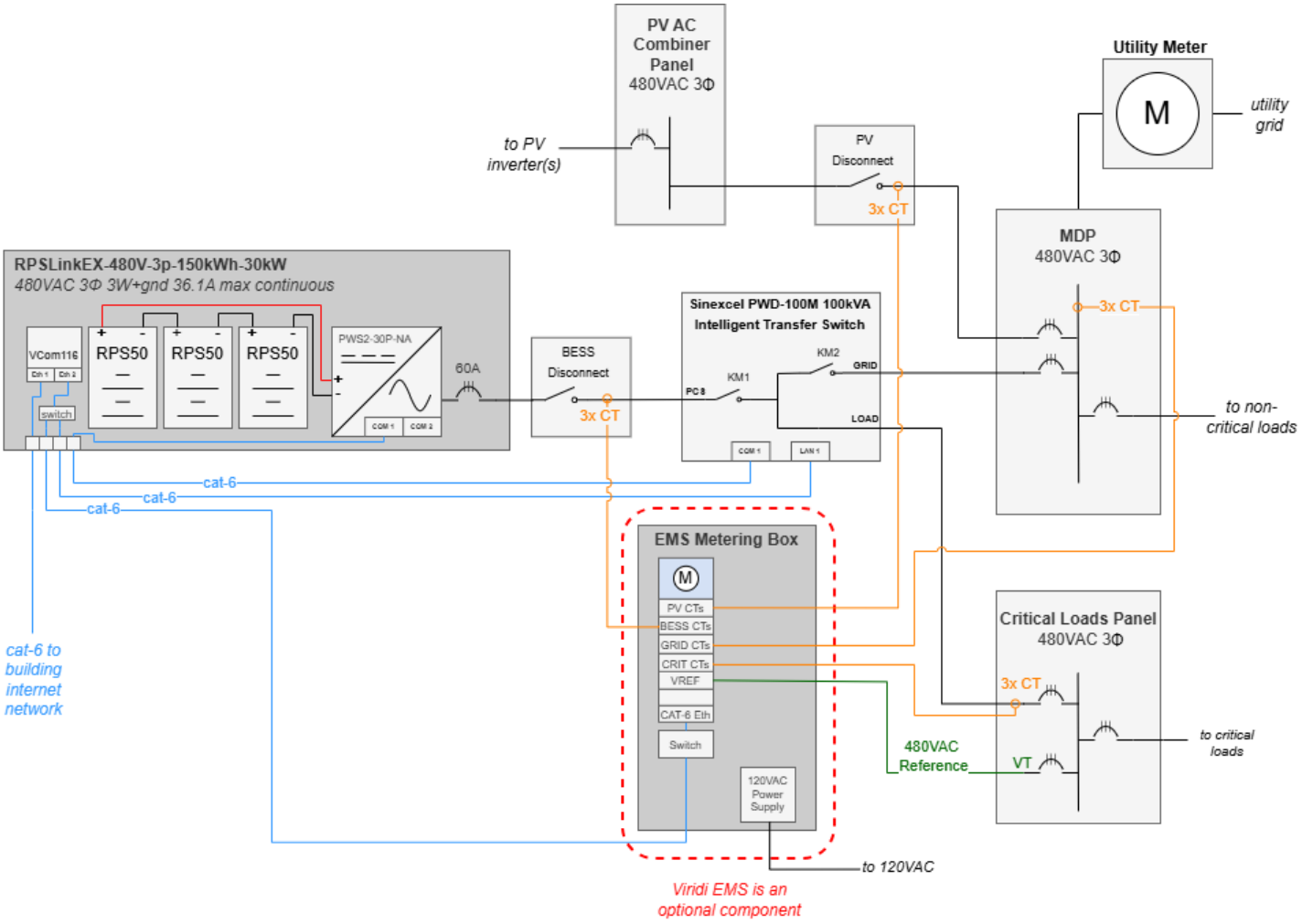
4.7.1 Example 1: 150kWh ON-Grid BESS

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



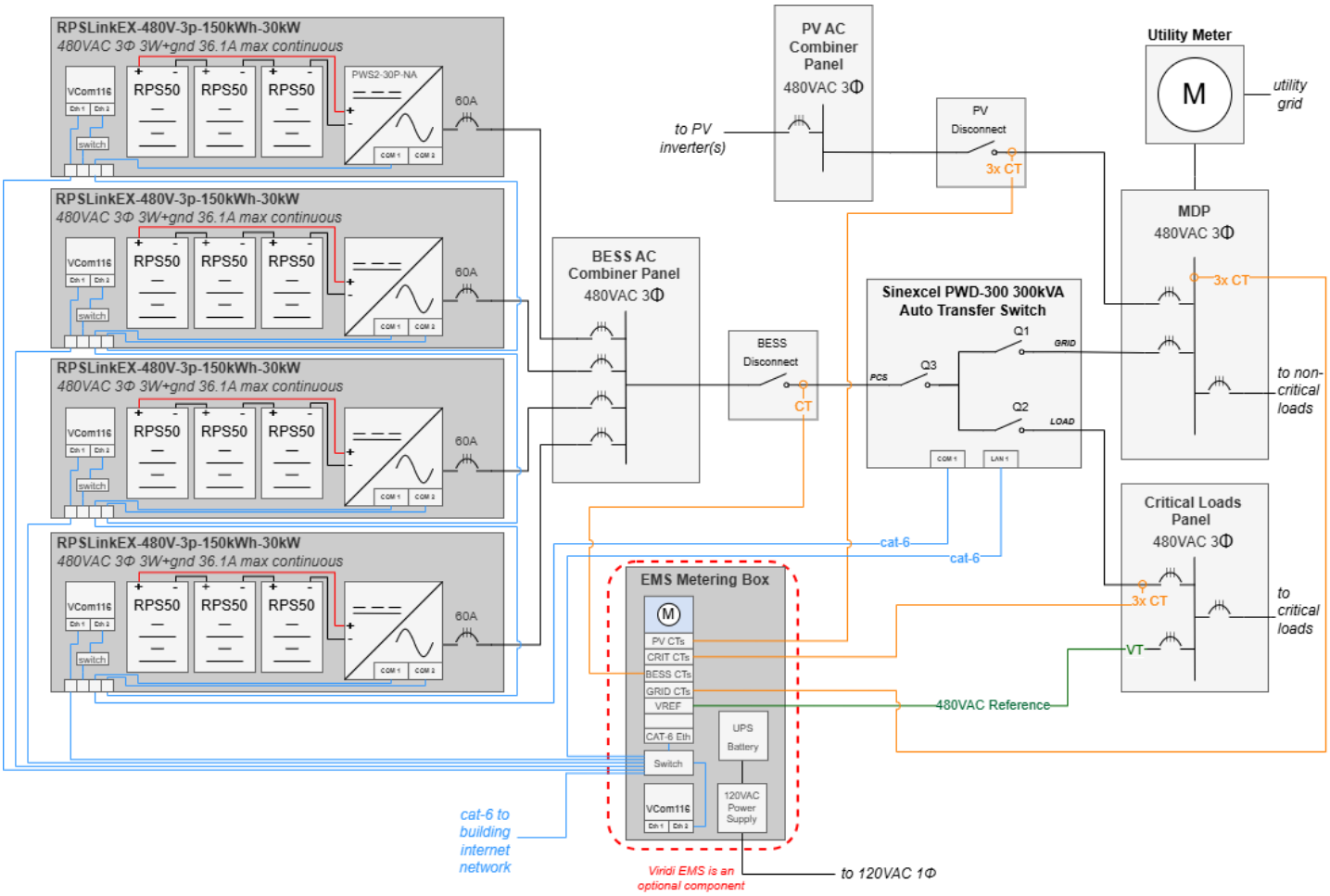
4.7.2 Example 2: 150kWh ON / OFF-Grid BESS

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

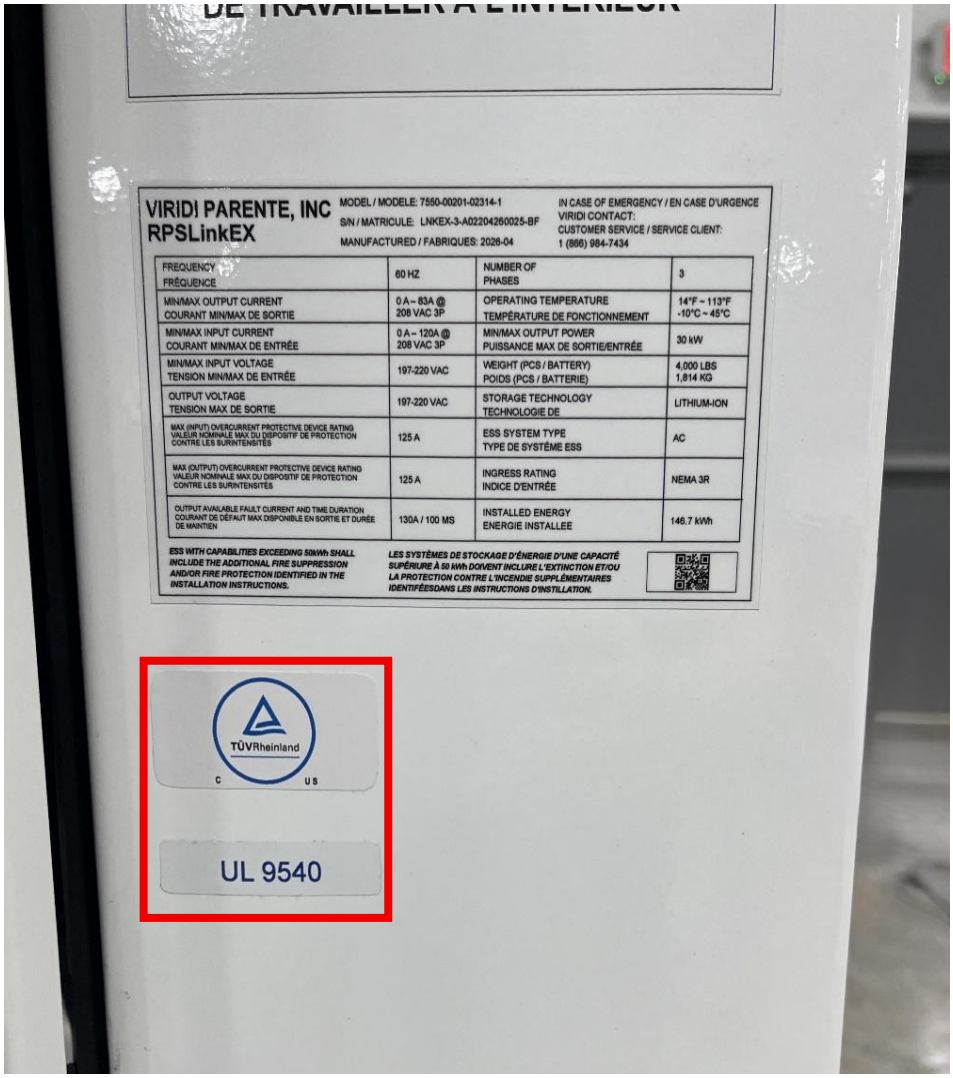


4.8 RPSLinkEX 3Φ Certifications

- 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-100 and PWD-300 ATS Modules) cETLus Listed (optional component)
- IEEE 1547 (Inverter) cTÜV SÜDus Listed
- UL 1973 (Pack) cTÜVus Listed
- UL 2580 (Cell) UL Recognized Component
- UL 9540A (Cell/Module/Pack Tested)
- UL 9540 (BESS) cTÜVus Listed

4.8.1 TÜV and UL Label Image

The following image identifies the TÜV and UL Label Image located on the on the rear of the unit, to the right-hand side of the Operator User Interface panel of the RPSLinkEX

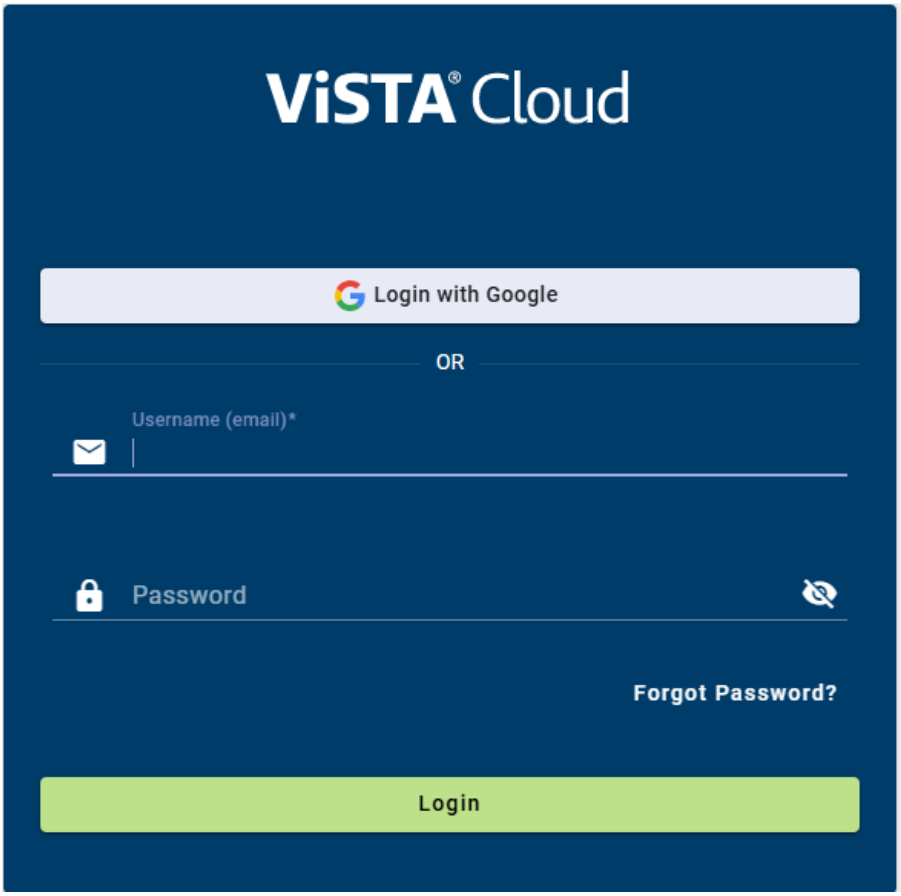


5. ViSTA® Cloud

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. An email will be sent from vista.notifications@viridiparente.com with a link to setup the account. Once setup, login by going to https://vista.viridiparente.com/login.



5.1.1 Email Notification

Follow the link or QR Code below to submit the Viridi ViSTA® User Request Form. Requests can be submitted for BESS Alert Notifications and Basic Vista User Account.

Viridi ViSTA® User Request Form à https://forms.office.com/r/mjH2FQr9DR?origin=lprLink



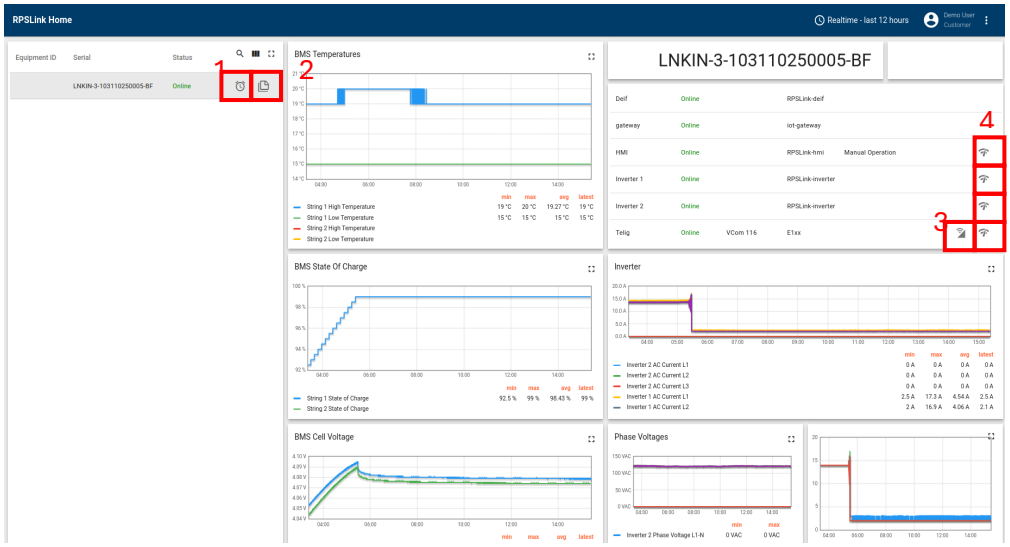
For additional assistance, questions, or custom requests, please contact Viridi Service at:

Phone: 1-866-984-7434

Email: service@viridiparente.com.

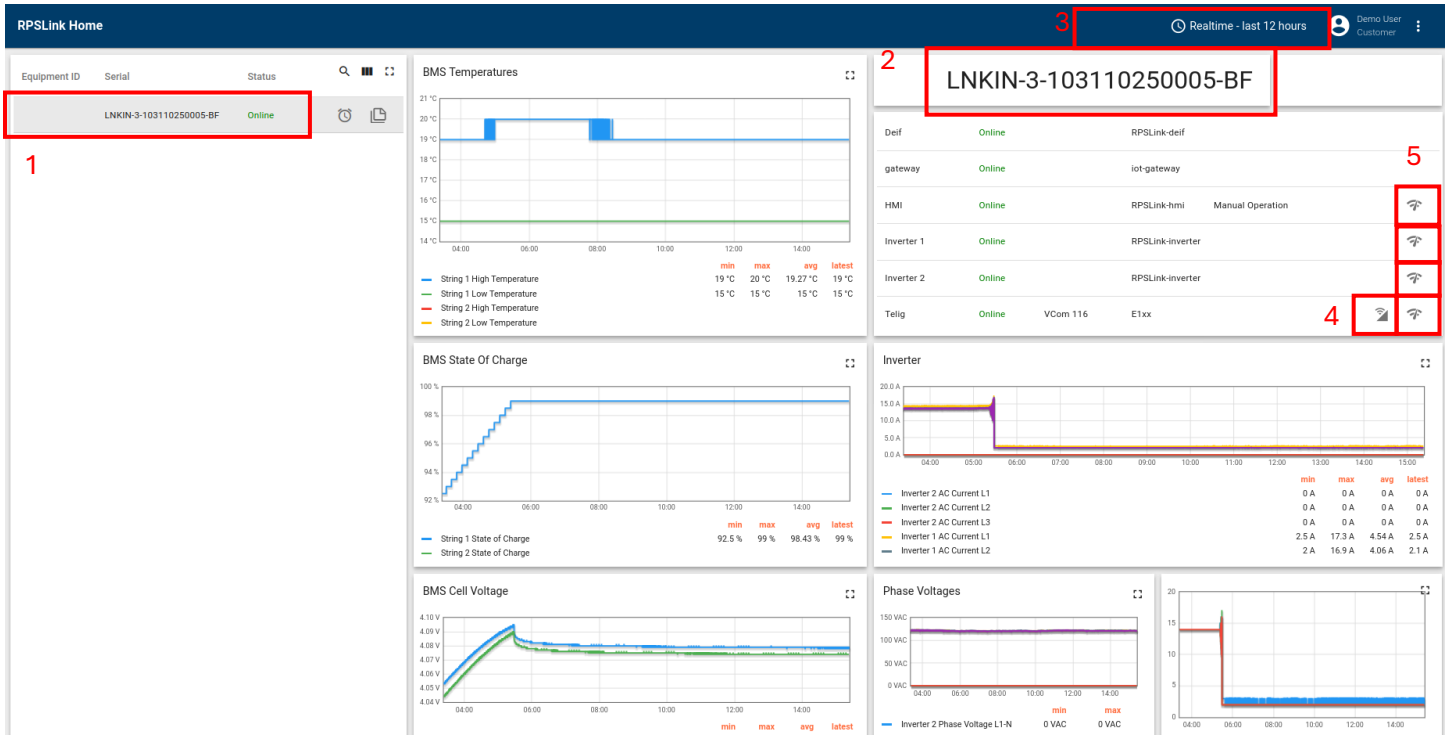
5.2 ViSTA Dashboard

5.2.1 Fleet View



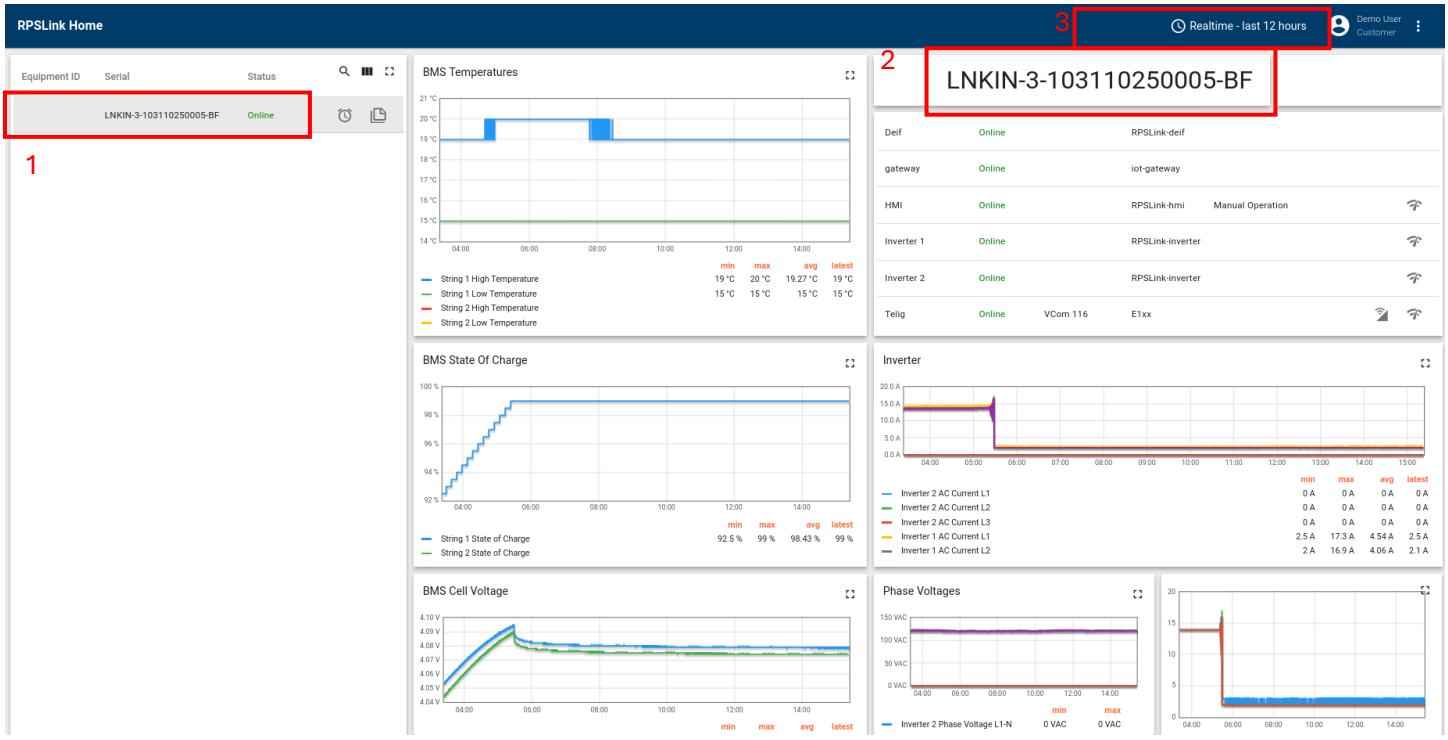
1. **Alarms**: This button opens a modal for viewing alarms, which can be filtered to show any alarms notifications status and severity.
2. **Notes**: This button allows the user to update notes for the unit.
3. **Connectivity**: This allows you to view the connectivity statistics of the unit.
4. **Ping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

5.2.2 Unit View



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. See section 5.2.5 (Time Window) for more information.
4. **Connectivity**: This allows you to view the connectivity statistics of the selected unit.
5. **Ping Sensor**: this allows you to ping the VCom and sensors to test connectivity.

5.2.3 Data Over Time

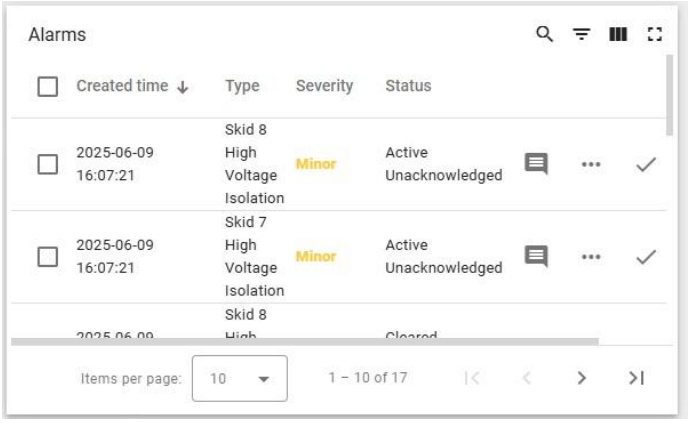


6. **Select Unit**: By Clicking on the row, you will select a unit.
7. **Selected Unit**: This tells you which unit is currently selected.
8. **Time Window**: This allows you to modify the time window.

.

5.2.4 Alarm View

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 RPSLinkIN or RPSLinkEX

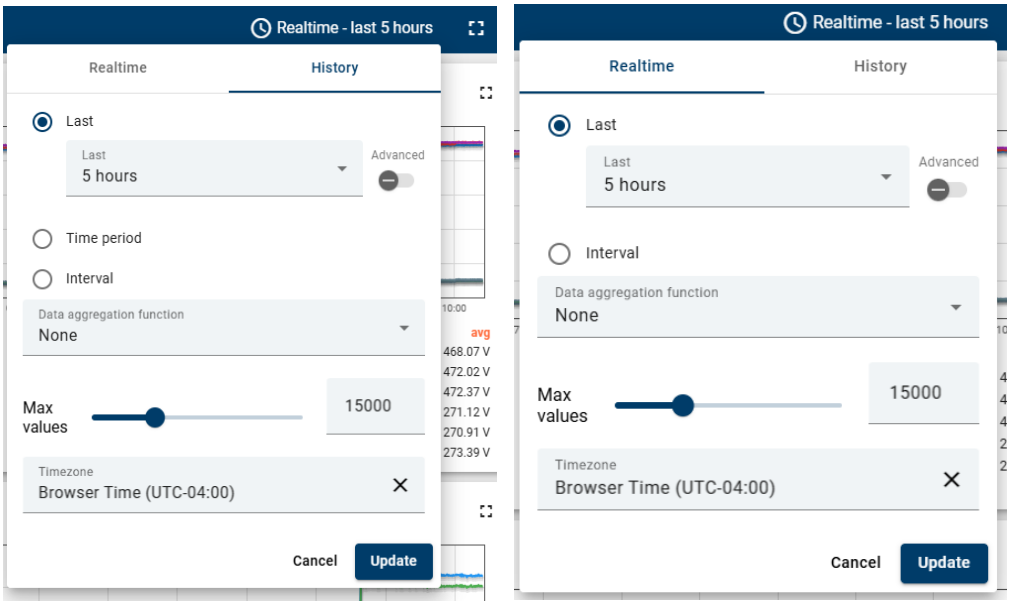
Clicking on the word bubble icon on the right will allow a screen view to see the activity of the RPSLink add comments concerning the alarm.

5.2.5 Time Window

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. RPSLinkEX 3Φ components are heavy and must be installed with proper equipment. RPSLinkEX 3Φ must be installed according to the design plans above.

6.1.1 Device External Clearance

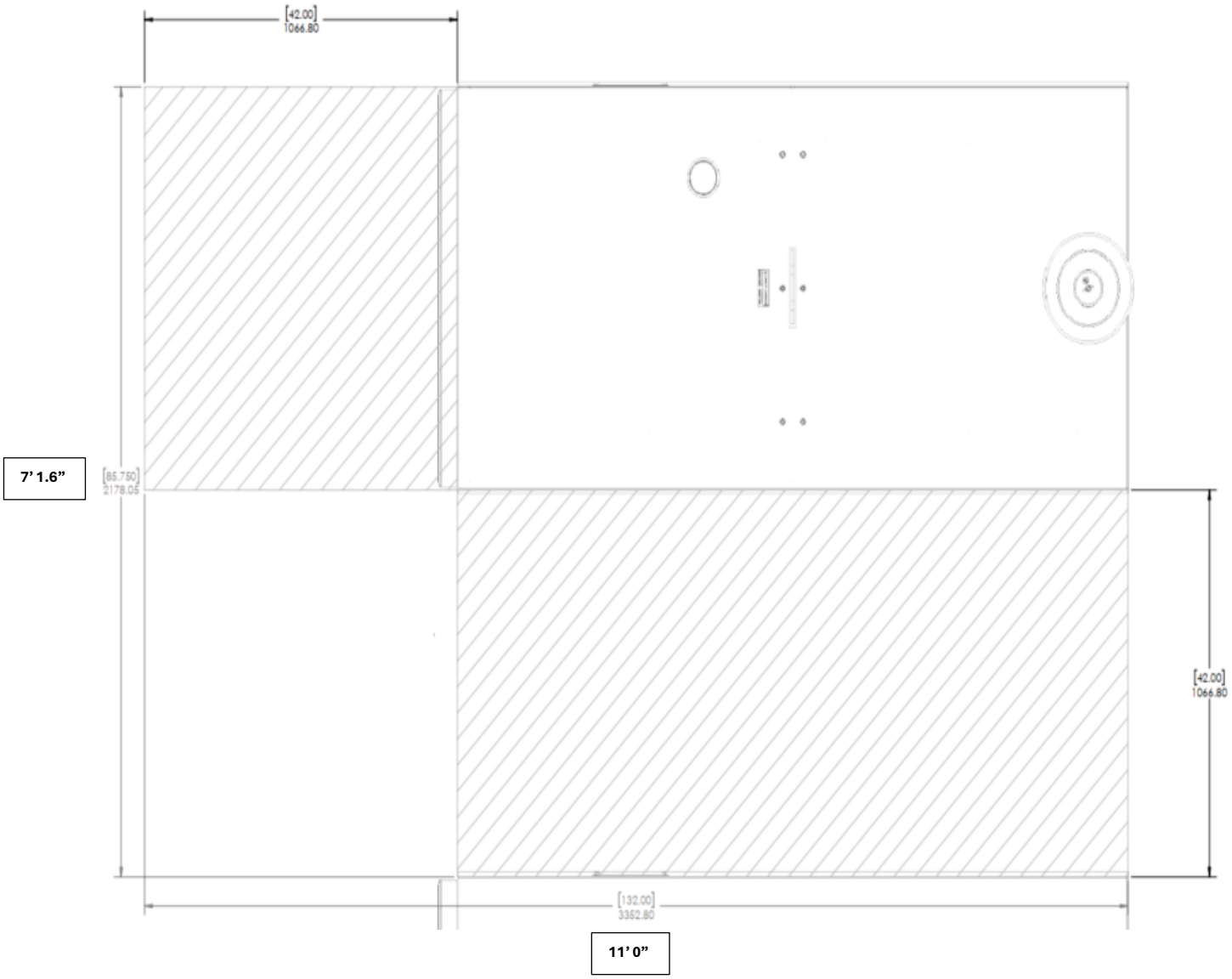
Consideration of multiple RPSLinkEX 3Φ installations within a single site (area) shall have the following factors:

1. Access road next to, or near the installation area
2. Ability to limit access to non-site or unauthorized personnel
3. Well drained area with no standing water
4. Minimum of 42-inch (106 cm) clearance between units
5. A stable platform for each RPSLinkEX 3Φ (i.e.: concrete pad) capable of holding 5,600 pounds (2,540 Kg)
6. Reference the figure below which provides a guide as to relative equipment placement

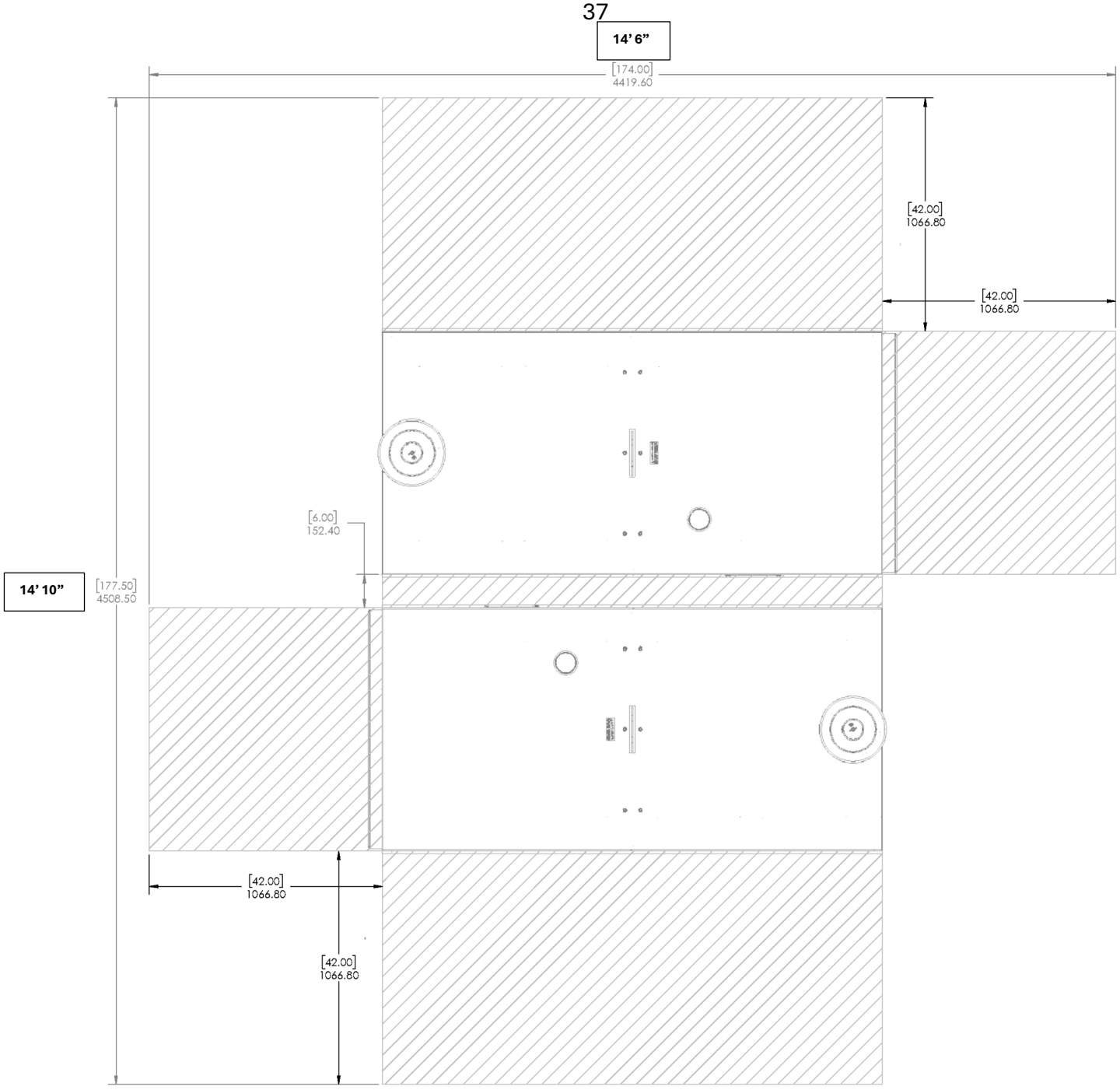
6.1.2 Typical RPSLinkEX 3Φ Installations Clearance

The following provides visual depiction of four (4) typical RPSLinkEX 3Φ installations. It is critical that a minimum of 42 inches (3 ft. 6 in.) is maintained around the exterior of the RPSLinkEX 3Φ. Four typical clearances configurations are as follows:

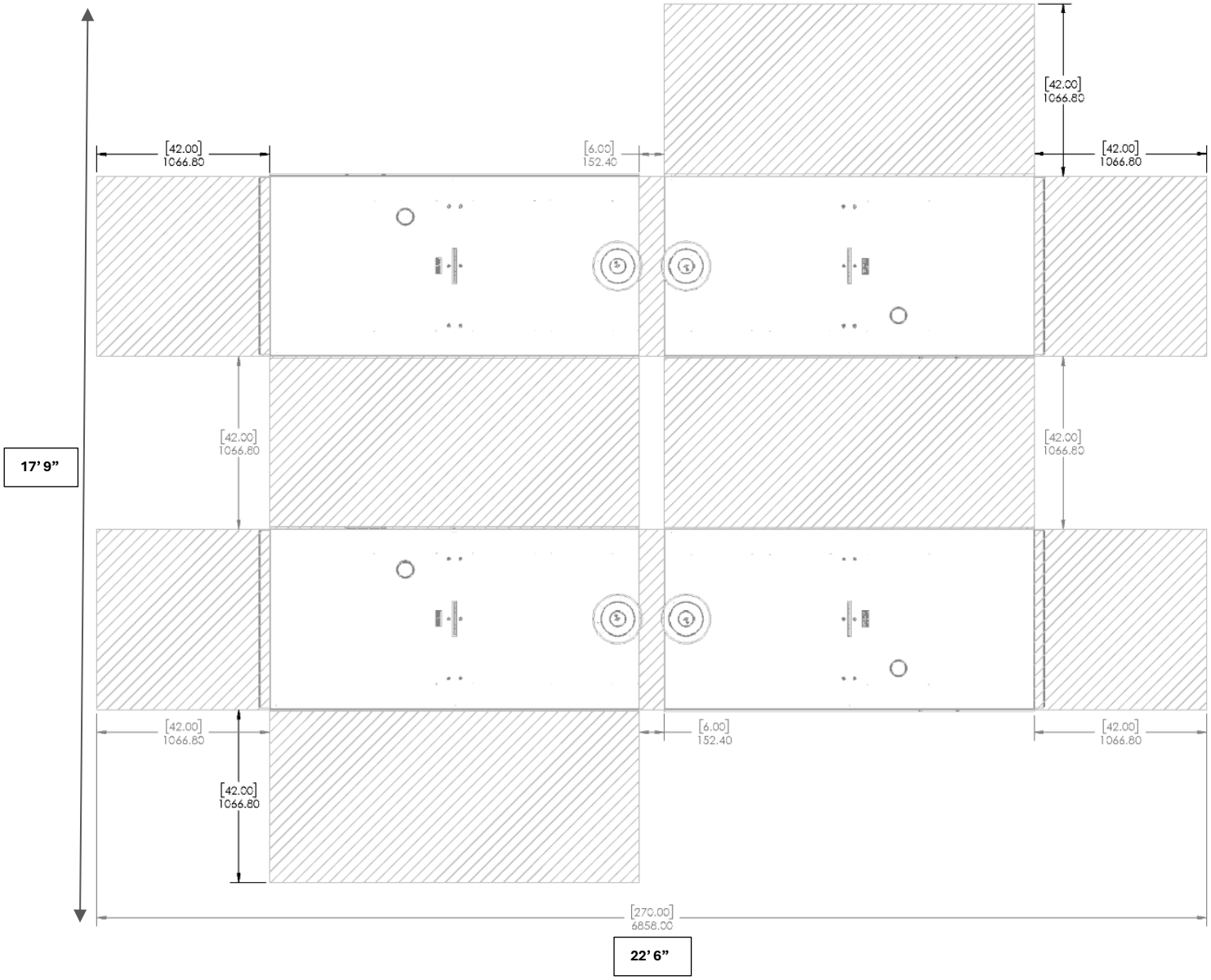
1. Single Unit Clearance Configuration
2. Two Units Clearance Configuration
3. Four Units (Qty=2 Alternate Configurations)



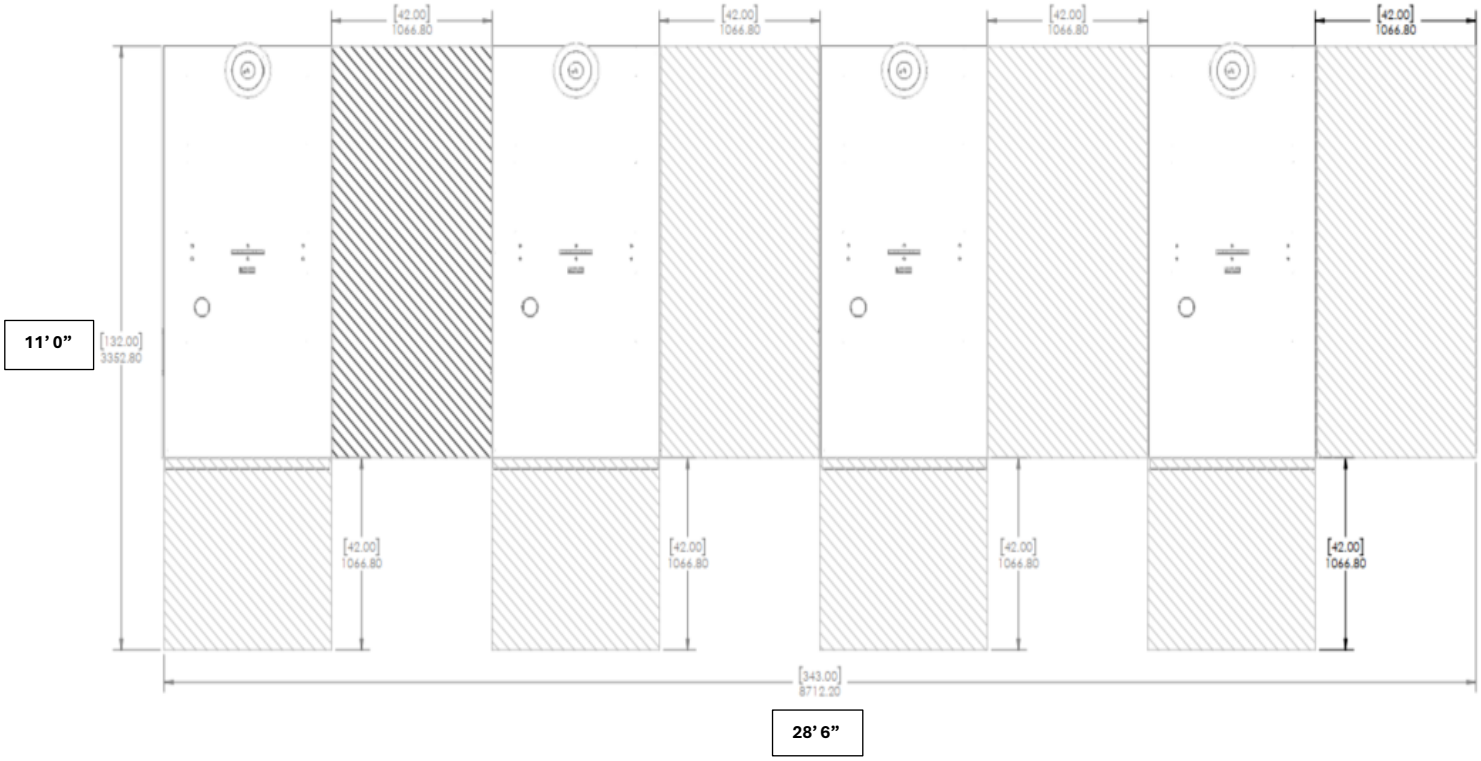
Single Unit Clearance Configuration



Two Units Clearance Configuration



Four Units Alternate Configurations Variation-1



Four Units Alternate Configurations Variation-2

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:

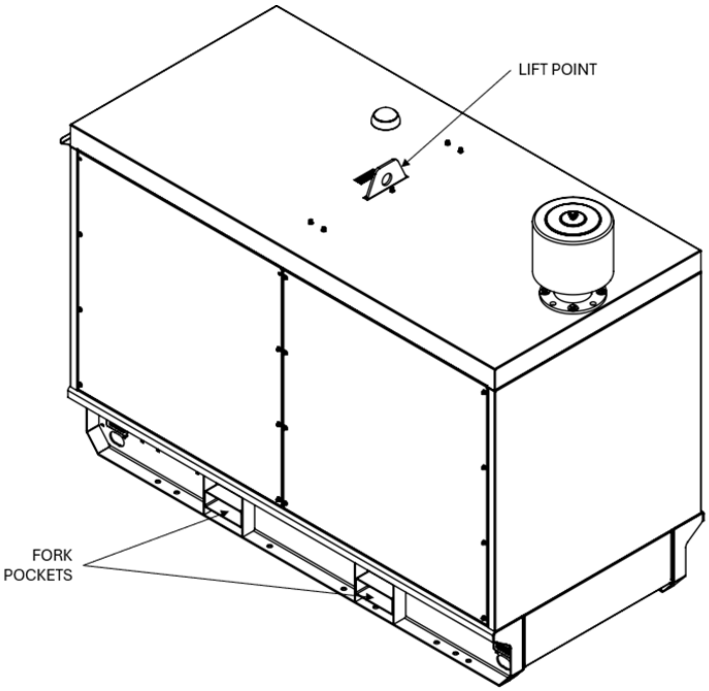
- The inverter UL lists safety standards for the Inverter UL 1741 Supplement B and the Battery is UL1973 listed.
- The inverter and battery undergo EMI/EMC testing.
- The BESS undergoes ground bond testing to verify low chassis/earth impedance on the ground lug in the EBox.
- Within RPSLinkEX 3Φ, all 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 RPSLinkEX 3Φ components to an open flame.
	Do not place or store RPSLinkEX 3Φ components near highly flammable materials.
	Do not expose or place RPSLinkEX 3Φ components near water sources.
	Do not install RPSLinkEX 3Φ components in an airtight enclosure or in an area without ventilation.
	Store RPSLinkEX 3Φ components on a flat, level surface in a cool, dry location.
	Store the RPSLinkEX 3Φ out of reach of children and animals.
	Do not disconnect, disassemble, or repair RPSLinkEX 3Φ components with unqualified personnel. Only Qualified Personnel should handle, install, and service the RPSLinkEX 3Φ components.
	Do not deform, impact, cut, or penetrate the RPSLinkEX 3Φ components with a sharp object. Doing so may cause a fire or leakage of electrolytes.
	Do not step on or stand on RPSLinkEX 3Φ components or their packaging.
	Do not place any objects on top of RPSLinkEX 3Φ components.
	Do not charge or discharge RPSLinkEX 3Φ if damaged or malfunctioning.
	Install the RPSLinkEX 3Φ with proper clearance from vehicles.
	All units must be transported in compliance with 49 CFR 171-180, Pipeline and Hazardous Materials Safety Administration (PHMSA) Hazardous Materials Regulations, and UN38.3.
	Specific to ESS units transported within New York City, the movement of vehicles carrying hazardous materials is additionally subject to the New York City Fire Code (FC 2701–2707) and the New York City Department of Transportation (NYC DOT) Hazardous Materials Transportation Regulations.
	Compliance includes, but is not limited to: • Use of designated New York City hazmat routes. • Tunnel restrictions prohibiting most lithium battery shipments. • Required vehicle placarding per 49 CFR. • No stopping/standing except in designated areas. • Driver HazMat endorsement and required training. • Time-of-day restrictions, when applicable.

6.3.2 Loading and Unloading



Unit Weight is Approximately Not To Exceed (NTE) 5,600lbs / 2,540Kg

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 RPSLinkEX 3Φ Components.

6.3.3 Loading for Transport

The following methods are available for loading the RPSLinkEX 3Φ in preparation for transport:

- **Lifting and Loading**
  - 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 the RPSLinkEX 3Φ.
- **Overhead Lift Point**
  - The RPSLinkEX 3Φ can be lifted using a crane from the designated center lifting point.
  - Ensure the crane is rated for the full weight of the unit.
- **Forklift Pockets**
  - Use a forklift or telehandler rated for loads exceeding **6,000 lbs**.
  - Insert forks fully into the designated fork pockets before lifting.
- **Mechanical Tie-Downs**
  - Loading, weight distribution and tie down is at the discretion of the driver and local, state and federal highway requirements

- **Post Unloading Inspection:**
  - Upon receipt of the RPSLinkEX 3Φ inspect the unit for any major damage that might have been incurred as part of the shipping process.
  - If a battery within the RPSLinkEX 3Φ is damaged during transport the battery will be shut off by the main contactor and the battery will not turn ON. If this is the case, please contact Viridi for support.

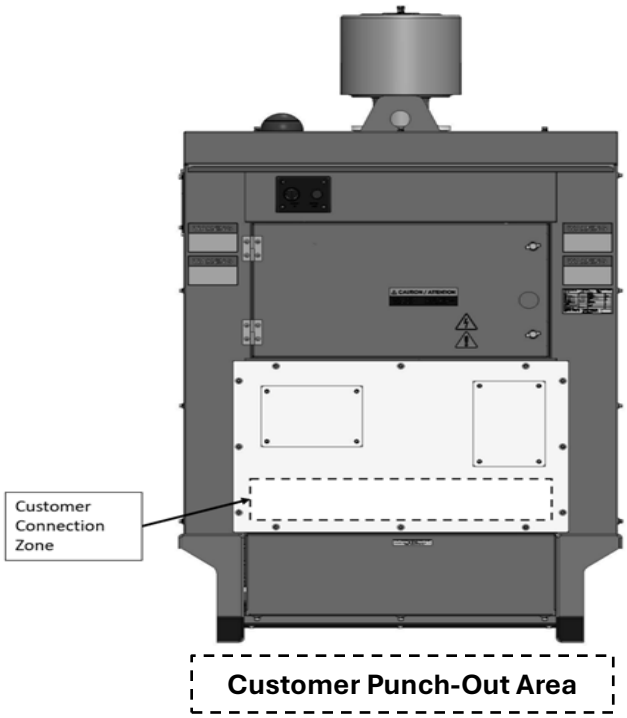
6.3.4 Punch-Out Area Designation

Identified in the picture below (Customer Connection Zone) is designated specifically for cable and connection interface with the RPSLinkEX 3Φ. Local and regional requirements for cabling interface shall be followed.

- Planning and Material Selection Before installation, plan the conduit route from the main power source to all electrical boxes, minimizing bends and avoiding obstacles.
- Choose the appropriate conduit material based on the environment Choose the appropriate conduit material based on the environment:
  - EMT (Electrical Metallic Tubing): Lightweight, bendable, ideal for indoor dry areas, and can serve as a grounding path.
  - PVC (Polyvinyl Chloride) conduit: Nonmetallic, moisture-resistant, suitable for outdoor, underground, or high-humidity areas.
  - RMC (Rigid Metal Conduit): Strong, durable, and suitable for exposed or industrial installations.
  - Flexible Conduct: Easier to install around obstacles or in retrofit projects.
- Installation Steps
  - Measure and Cut: Mark the conduit path, measure lengths, and cut the conduit. Remove burrs from metal conduits to prevent wire damage.
  - Bend Conduit: Use a conduit bender for EMT or heat for PVC to achieve the required angles.
  - Assemble and Secure: Connect conduit sections using appropriate fittings and fasten them to the structure with straps or clamps, following local code spacing requirements.
  - Install Junction Boxes: Position boxes along the route for outlets, switches, or splices, ensuring easy access for future maintenance.
  - Pull Wires: Use fish tape to pull electrical wires through the conduit, avoiding sharp bends or kinks.
  - Inspection and Testing: Verify all connections, grounding, and alignment. Ensure compliance with local electrical codes.
- Best Practices
  - Keep conduit runs as straight as possible to simplify wire pulling and reduce voltage drop.
  - Avoid undersized conduits to prevent overheating and oversized conduits to reduce material waste.
  - Practice bending on scrap pieces to perfect technique before working on the actual installation.
  - Consider environmental factors like moisture, temperature fluctuations, and corrosion when selecting materials.

By following these steps and using the correct materials and tools, an installation can be installed a safe, durable, and code-compliant electrical conduit system that protects wiring and facilitates future maintenance or upgrades. Should questions arise Contact your Viridi Service Team for assistance at:

- Customer Service Line: 1–866–984-7434
- Email: service@viridiparente.com



6.3.5 Cable Interface

Step 1 — Run and Land utility connection AC wiring

- Run Utility connection wiring into the bottom panel on the Right-Hand side when facing the control panel
- 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

Note: Please reference 0 for the torque specification during installation

Step 2 — Run Ethernet (CAT 5E or 6 - RJ45) communication wires to RPSLinkEX 3Φ

- Run ethernet cables from the building to the RPSLinkEX 3Φ
- Route the ethernet cables inside the lower panel to the bulkhead connectors or to the unit's unmanaged switch - any open port.

6.4 Wiring Installation Instructions

6.4.1 Sinexcel Intelligent Transfer Switch

The Sinexcel PWD-100 / PWD-300 Intelligent Transfer Switch are optional components required for RPSLinkEX 3Φ to provide automatic backup during a loss of grid power. They are not considered part of the RPSLinkEX 3Φ system but can be connected to the customers' installation of the RPSLinkEX 3Φ to provide automatic backup functionality.

6.4.2 Utility and Load Connections with Transfer Switch

1. Drop Utility connection wiring into housing for Intelligent transfer switch and land on the "GRID" Connection
2. Drop Load connection wiring into housing for Intelligent transfer switch and land on the "LOAD" Connection
3. Drop PCS connection wiring into housing for Intelligent transfer switch from the PCS Cabinet and land on the "PCS" Connection

7. Commissioning

7.1 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. The following Phases are as follows:

- Phase 1 — Pre-Commissioning / Documentation Review
- Phase 2 — Mechanical & Installation Inspection
- Phase 3 — Electrical Verification (Before Energization)
- Phase 4 — Controls, Communication & Software
- Phase 5 — Functional / Dry Run Tests
- Phase 6 — Performance / Integration Tests
- Phase 7 — Final Acceptance & Documentation

7.2 RPSLinkEX 3Φ Commissioning Checklist

RPSLink Serial Number:
Test Start Date:
Test End Date:
Commissioning Performed By:
Document # 9340-00067
Revision # 1

Phase 1 — Pre-Commissioning / Documentation Review			
Step	**Checklist Item**	**Status (OK / Pending / N/A)**	**Comments / Notes**
1.1	Verify design documentation set (single-line diagrams, layout, control logic, network diagram).		
1.2	Confirm 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 — LO/TO plan, emergency response plan.		
1.6	Verify quality QA/QC checks completed for RPSLinkEX and site-specific Infrastructure		

Phase 2 — Mechanical & Installation Inspection			
Step	**Checklist Item**	**Status (OK / Pending / N/A)**	**Comments / Notes**
2.1	Check physical mounting of the system		
2.2	Confirm system is located away from physical obstructions and has access for maintenance support		
2.3	Inspect conduit entries and gland seals to be properly secured		
2.4	Verify Unit is secured		

Phase 3 — Electrical Verification (Before Energization)			
Step	**Checklist Item**	**Status (OK / Pending / N/A)**	**Comments / Notes**
3.1	ATS OPTION ONLY: Torque check on terminal block for utility connection to ATS (as per manufacturer specifications).		
3.2	ATS OPTION ONLY: Torque check on terminal block for load connection to ATS (as per manufacturer specifications).		
3.3	Torque check on Main Load OCPD inside unit (as per manufacturer specifications).		
3.4	Torque check on Breaker connections for inverters (QTY=2) inside unit (as per manufacturer specifications). Load side and line side		
3.5	Confirm system grounding/bonding continuity meets the NEC, verified by electrical contractor		
3.6	Verify 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		
3.9	Verify all grounds are secured on the rps50 batteries		
3.10	Verify all grounds are secured on the RPSLINK-EX		

Phase 4 — Controls, Communication & Software			
Step	**Checklist Item**	**Status (OK / Pending / N/A)**	**Comments / Notes**
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, Wi-Fi or Ethernet connection)		

Phase 5 — Functional / Dry Run Tests			
Step	**Checklist Item**	**Status (OK / Pending / N/A)**	**Comments / Notes**
5.1	ATS OPTION ONLY: Power on utility feed to the RPSLink, verify ATS turns on and passes power through to load		
5.2	Close battery contactors under electrical contractor or engineering supervision (initial DC energization).		
5.3	Verify State of Charge (SOC) reporting accuracy, voltage/current sensor calibration.		
5.4	Confirm alarm triggers: To HMI and to the ViSTA system.		
5.5	Test emergency stop and system safe shutdown sequence.		
5.6	Verify RPSLink is visible and active on ViSTA Monitoring Platform		

Phase 6 — Performance / Integration Tests

Step	Checklist Item	Status (OK / Pending / N/A)	Comments / Notes
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	ATS OPTION ONLY: Run full load with utility present through ATS to load		
6.5	ATS OPTION ONLY: Shutdown utility and verify switchover to battery support through PCS		
6.6	ATS OPTION ONLY: Run full load with support on battery power only (no utility present)		
6.7	ATS OPTION ONLY: Turn utility back on, verify ATS switches back to normal utility operation		
6.8	ATS OPTION ONLY: Charge battery unit to top of charge with utility present and supporting the load, verify stops and idles at top of charge		

Phase 7 — Final Acceptance & Documentation

Step	Checklist Item	Status (OK / Pending / N/A)	Comments / Notes
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

8. Startup

8.1 RPSLinkEX 3Φ General Startup Instructions

1 — Apply Power to the Unit

Move the selector switch on the User Interface Panel to the "ON / Normal" position.
The DEIF IE250 will 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

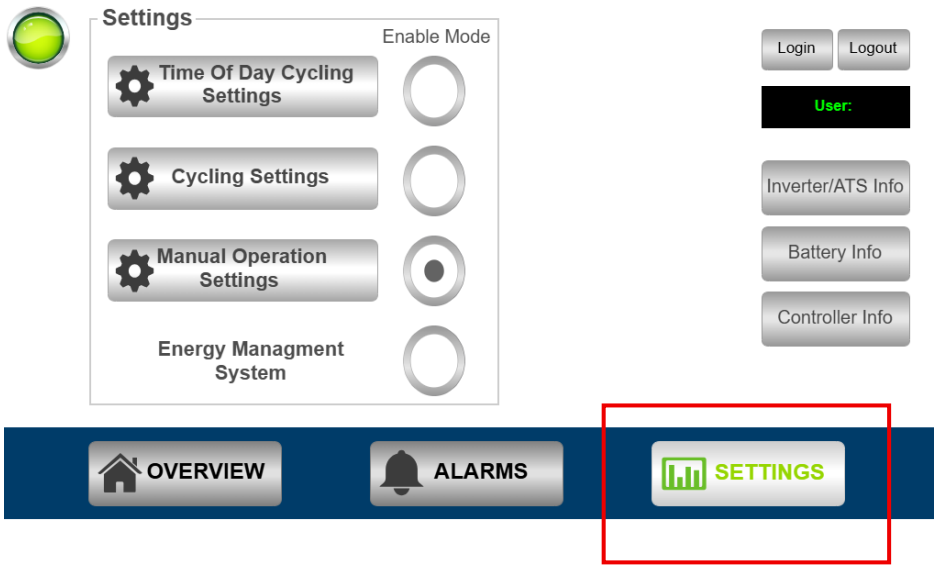
On the **front HMI (DEIF IE250)**, tap the **back arrow**, then select **"WebVisu."**

Step 2 — Accept Connection

Select **"Accept."**

Step 3 — Verify Unit Mode

Open the bottom menu and select **"Settings."**

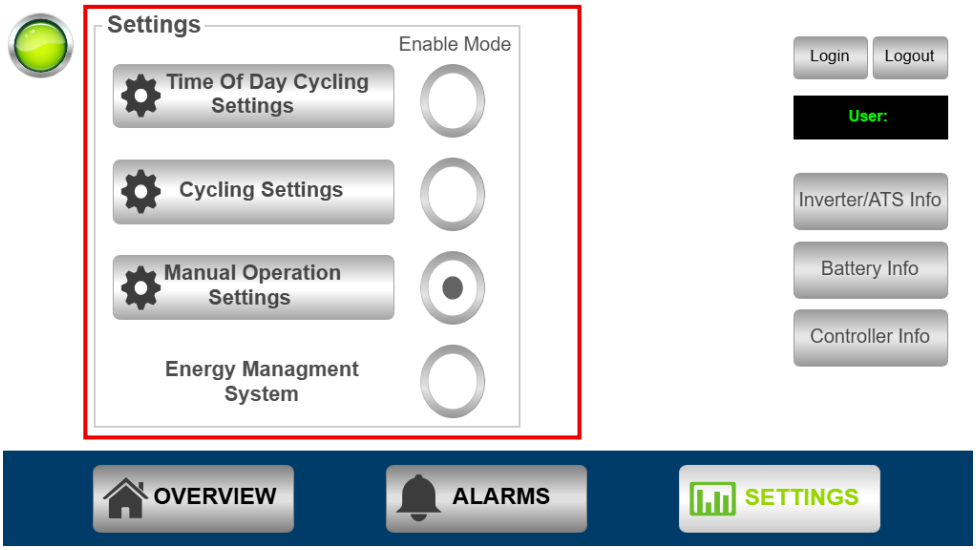


Step 4 — Select Operating Mode & Setpoints

Choose the desired mode and configure the associated setpoints:

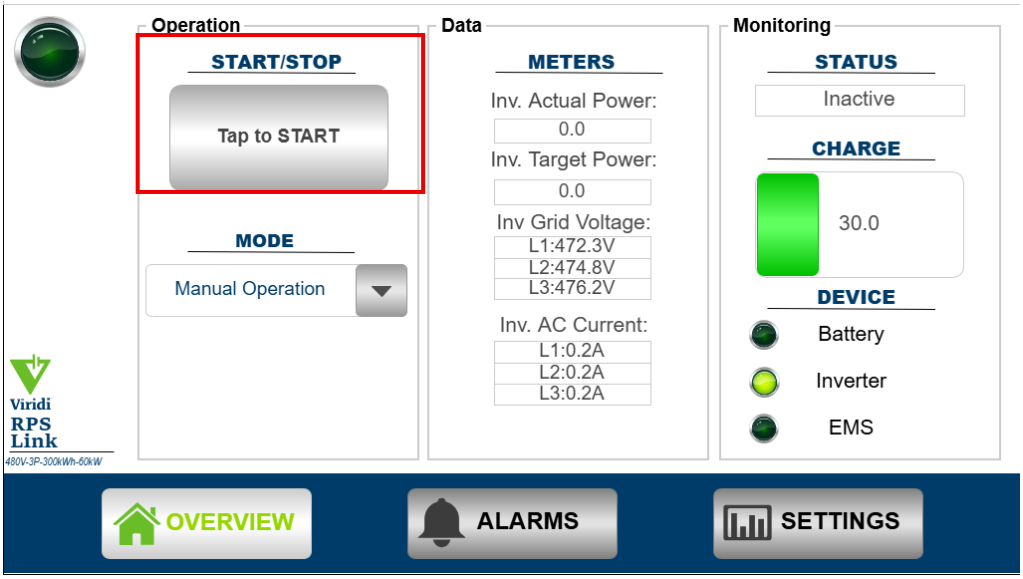
1. **Time of Day**
   Allows input of time-of-day schedule, SOC limits, and charge/discharge power setpoints.
2. **Cycling**
   Allows input of power setpoints. The unit automatically cycles from top of charge to bottom of charge repeatedly.
3. **Manual Operation**
   Allows direct power command input.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

   Allows unit to carry load (not for On-Grid use).



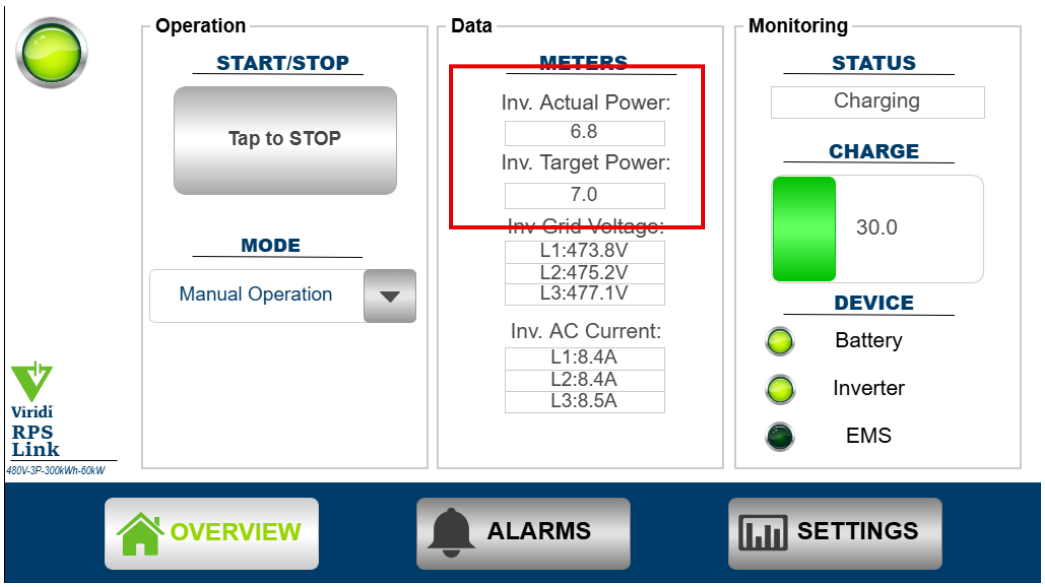
Step 5 — Start the System

On the **Overview** tab, select **"Tap to Start."**



Step 6 — Verify Output

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



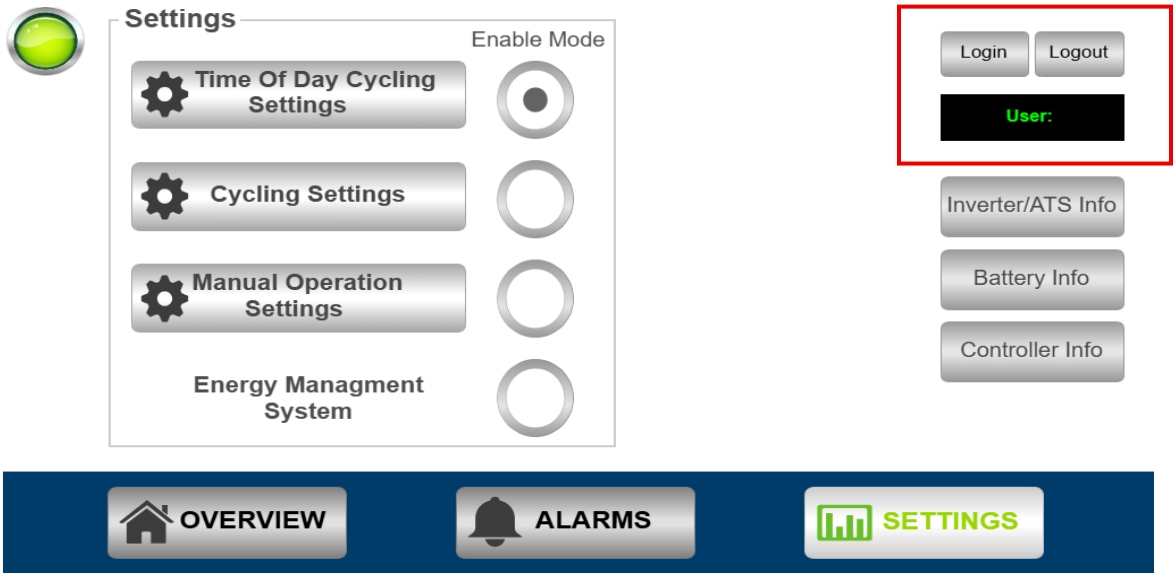
8.2 RPSLinkEX 3Φ Advanced Settings

Advanced Settings (Ramp Rate & Fan Mode)

Step 7 — Login for Advanced Configuration

To change ramp rate, fan mode or Off Grid mode:

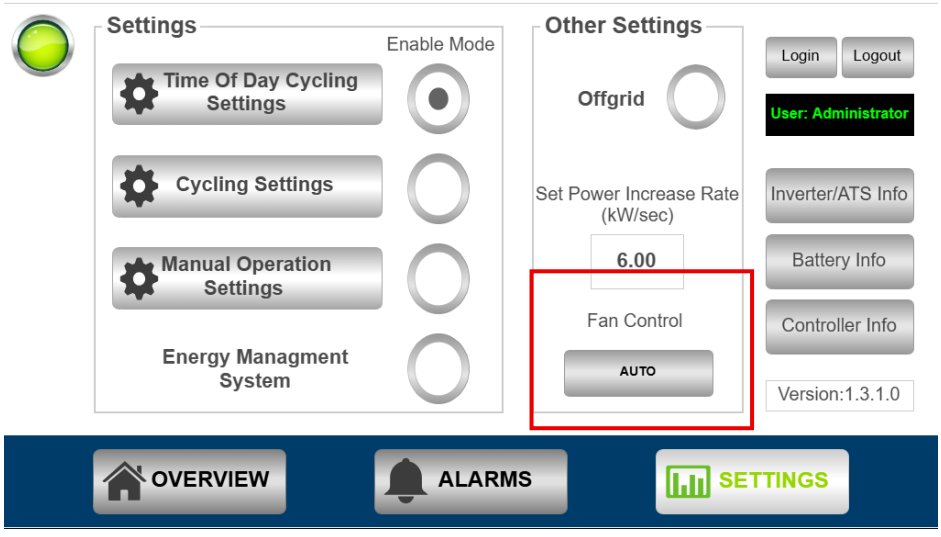
- Select **"Login."**
- **Password:** 1001



Step 8 — Verify Fan Mode

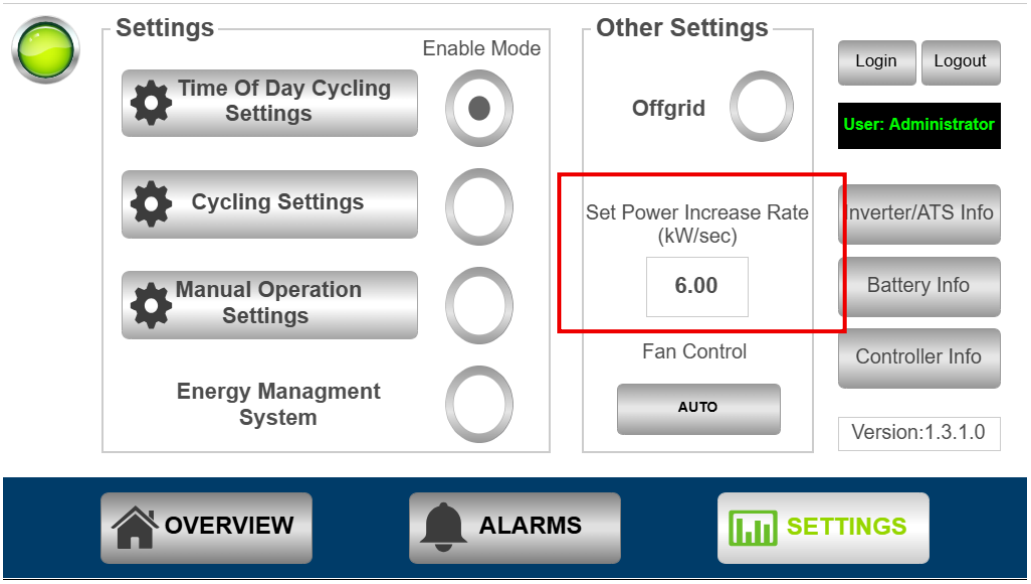
Fan Mode Options:

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



Step 9 — Adjust Ramp Rate

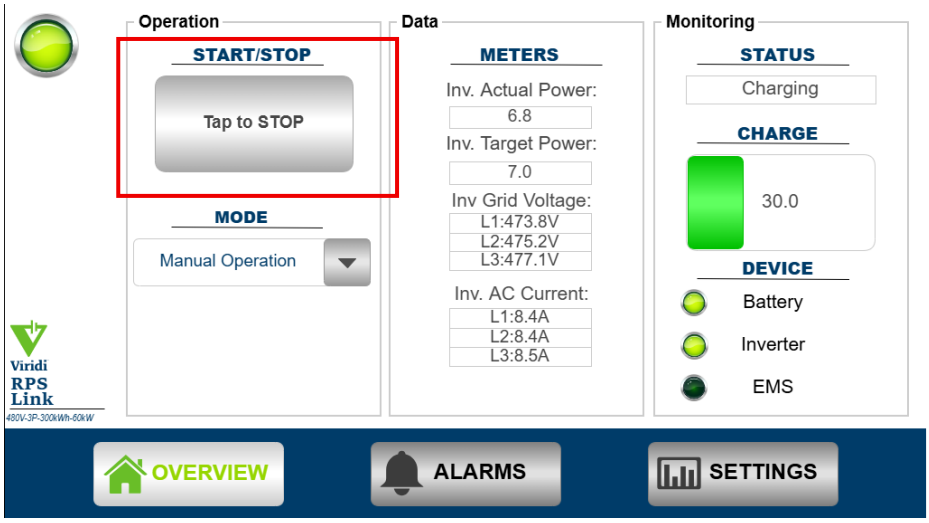
Use the ramp-rate increase to set the desired **kW/sec inverter ramp rate.**



9. Shut Down

9.1 RPSLinkEX 3Φ 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

10. Maintenance

Note:

- Personnel performing maintenance on the RPSLinkEX 3Φ must be trained and familiar with the operation and configuration of RPSLinkEX 3Φ components.
- The BESS must be completely disconnected (external power source in a deenergized state with proper Lock Out – Tag Out [LO/TO] devices installed) for all external connections and interfaces prior to any type of maintenance operation.
    - The only exception to this is when performing the thermal imaging check listed under 0. This system must be running to properly perform this check.
- 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 the fittings 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.
- To prevent the risk of electric shock, Arc Flash, or equipment damage, ensure that the system is completely de-energized and all power sources are fully disconnected before performing any internal maintenance on the Battery Energy Storage System (BESS). This includes:
    - Confirming that the toggle switch and 24v disconnect are in the **OFF** position.
    - Ensuring that all breakers, including those on the BESS system and common bus (if applicable), are in the **open (OFF)** position.
    - Verifying that all incoming and outgoing power sources are disconnected/unplugged.

10.1 Periodic Scheduled Maintenance

The following are the recommended scheduled maintenance check/verification for the internal/external components of the RPSLinkEX 3Φ

Task List *(see 10.1.1 thru 10.1.7 below for item locations and detail)*	**Commissioning**	**Monthly**	**Quarterly**	**Semi-Annually**	**Annually**	**As Indicated**
10.1.1 Sinexcel Inverters - Vacuum all dust and debris from the unit			X			
10.1.2 Sinexcel Inverters - Using low pressure dry compressed air source, blow air through the mesh and fans			X			
10.1.3 Switchgear- General inspection inside of the enclosure for contaminants and/or dust	X			X		
10.1.4 Main Enclosure – preventative maintenance check for intake/exhaust filter and exhaust fan					X	

Task List *(see 10.1.1 thru 10.1.7 below for item locations and detail)*	Commissioning	Monthly	Quarterly	Semi-Annually	Annually	As Indicated
10.1.5 General Electrical and Bolt interface connections - Check for oil, dust, oxidation, and contaminant accumulation	X				X	
10.1.6 Energy Management System Cabinet *(optional accessory external to RPSLinkEX* 3Φ*)* **-** Check for oil, dust, oxidation, and contaminants accumulating inside of the cabinet	X					X
10.1.7 Torque Checks – Perform thermal check OR torque mark check	X				X	

10.2 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 low pressure dry 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.

10.3 System Enclosure

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:

- There should be a general visual check of the unit's exterior and interior every 6 months to spot any possible hazards or issues.
- Intake and Exhaust Fan (P/N: 2410-00041, MFG P/N: HI-200SD(8"))
    - Clean inside of cabinet with low pressure dry compressed air, visually inspect fan blades
- Intake Filter (P/N: 2410-00036, MFG P/N: F-245P-500F)
- Filter Manufacturer recommends replacing the filter (2410-00046) every 9-12 months based on environment.
    - Visually inspect filter every 6 months to ensure there are no major blockages. Inspection should occur more often if unit is installed in a high dust environment.

10.4 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.

10.5 Energy Management System (EMS) Cabinet(s)

Energy Management System (EMS) is an optional cabinet or cabinets external to the RPSLinkEX 3Φ *product 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.

10.6 Working Spaces

Access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment. Working space for equipment operating at 1000 volts, nominal, or less to ground and likely to require examination, adjustment, servicing, or maintenance while energized shall comply with the dimensions in the following table:

Nominal Voltage To Gound	Minimum Clear Distance		
	Condition 1	Condition 2	Condition 3
0-150	900mm (3ft)	900mm (3ft)	900mm (3ft)
151-600	900mm (3ft)	1.0m (3ft 6in)	1.2m (4ft)
601-1000	900mm (3ft)	1.2m (4ft)	1.5m (5ft)

The conditions are as follows:

- **Condition 1** - Exposed live parts on one side of the working space and no live or grounded parts on the other side of the working space, or exposed live parts on both sides of the working space that are effectively guarded by insulating materials.
- **Condition 2** - Exposed live parts on one side of the working space and grounded parts on the other side of the working space. Concrete, brick, or tile walls shall be considered as grounded.
- **Condition 3** - Exposed live parts on both sides of the working space.

10.7 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 LO/TO 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

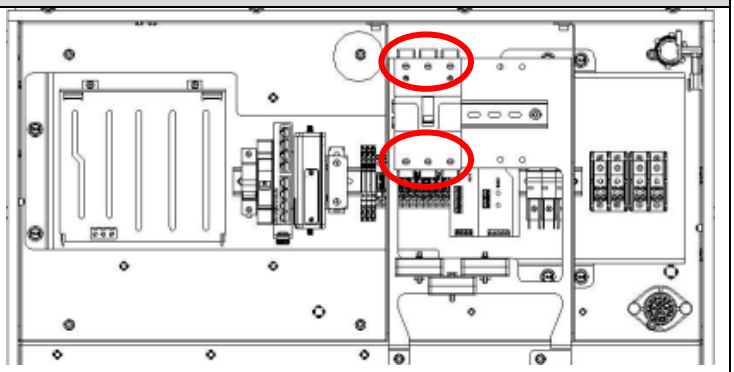
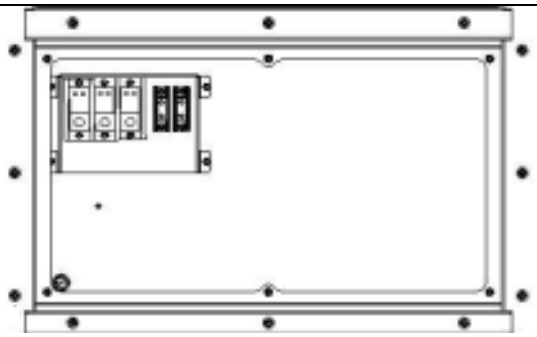
10.7.1 Torque Check Table

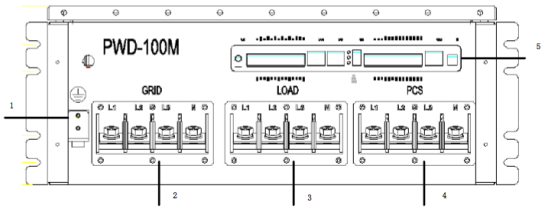
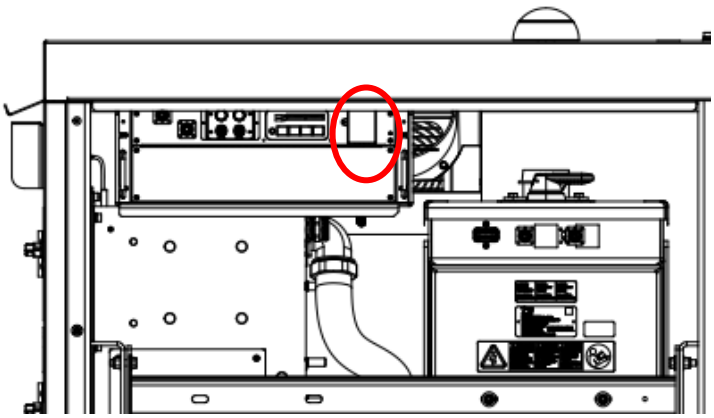
Component	Location	Torque Value [Nm]	Frequency	MFR PN
125A Main Breaker	[A]	9Nm +/- 0.9	Annually	Schneider BDL36125
3 Pole Distribution block	[B]	56.55Nm +/- 2.8	Annually	Eaton 16378-1
1 Pole Distribution block GND	[B]	12.4Nm +/- 0.6	Annually	Eaton 16204-1
Inverter 3Φhase connection (1 or 2)	[C]	5.1Nm +/- 0.3	Annually	Contact Viridi
PWD-100M Intelligent Switch Module (Optional)	[C]	20Nm +/- 1.0	Annually	Contact Viridi

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

10.7.2 Torque Reference Images (Locations).

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

Location (description)	Image
Location A – Electronics Box. **1 –** 125 Amp Breaker 2 – 125 Amp Breaker	
Location B – Power Skid **3** – 3Φole distribution block **4** – 1pole distribution block	

Location (description)	Image
Location C – Intelligent Switch module location (Optional)	
Location C – Inverter Terminal Block (4 positions)	

10.8 Decommissioning

- Contact Viridi first:
  a) Perform final physical inspection.
  b) Lower SOC to 30% SOC.
  c) Go through a shutdown procedure (Reference Section 9.1 Shut Down)
  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 on the User Interface Panel (paragraph 4.5.2)
  g) Visually Validate everything in the unit is powered off
- To decommission or uninstall the RPSLinkEX 3Φ, contact your Viridi service team for further instructions. 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.

10.9 Cleaning

While every effort has been made to ensure the accuracy of the content, the authors and publishers make no warranties, either express or implied, regarding the completeness or reliability of the information contained herein. Under no circumstances shall the authors, publishers, or any affiliated parties be liable for any direct, indirect, incidental, consequential, or punitive damages arising from the use or inability to use the information in these guidelines, even if advised of the possibility of such damages. By using this document, you agree to these terms and conditions.

- DO NOT power-wash of any part of the unit
- DO NOT spray any part of the unit (with a hose or other instrument)
- DO NOT touch the battery caps or high-voltage electrical connections
- Hand wash user and electrical interface panels with an all-purpose cleaner and rag
- Hand wash roof, side panels, skid, and trailer with soapy water and sponge
- On vinyl-wrapped units, clean/shine outside with 90% rubbing alcohol. For damaged areas, repair with new vinyl.

10.10 ViSTA Alarm Definition Glossary

Severity	Description	High Level Definition
Critical	Requires Immediate Attention	Anything that can cause the unit, or the "Grid" to shut down *Ex. E-Stop Pressed*
Major	High Impact to Functionality	Anything that can cause the unit to go down or a major component to go down *Ex. Inverter Alarms or Battery Diagnostic Trouble Code (DTC) Alarms*
Warning	Does not impact functionality right away	Does not impact on the overall functionality but if this state continues, it will lead to an alarm (either minor, or/and major). *Ex. Temperature Alarms*

10.11 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 the 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 the 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.

Alarm Name	Severity	Triggered By	Description / Take Action
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.
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.
String “X” Charger Safety Relay Fault	MAJOR	String “X” PLC	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Internal Hardware Fault	MAJOR	String “X” PLC	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Internal Heatsink Thermistor Fault	MAJOR	String “X” PLC	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X “Internal Software Fault	MAJOR	String “X” PLC	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
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.
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.
String “X” Pack Too Hot Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
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.
String “X” Pre-charge Circuit Malfunction	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
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.
String “X” Internal Communication Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
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.
String “X” Weak Cell Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Low Cell Voltage Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.

Alarm Name	Severity	Triggered By	Description / Take Action
String “X” Open Wiring Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Current Sensor Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
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.
String “X” Cell ASIC Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Weak Pack Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Fan Monitor Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Thermistor Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” External Communication Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Redundant Power Supply Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” High Voltage Isolation Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Input Power Supply Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
String “X” Charge Limit Enforcement Fault	MAJOR	String “X” BMS	Error code generated by rps50 Battery Management System [Orion BMS2]. Call Viridi Customer Service.
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.
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.

10.12 Troubleshooting

If the Link system does not function, perform the following checks:

- Verify that the 24 V battery disconnect is in the ON position.
- Verify that the main circuit breaker is in the ON position.
- If the display does not power on, check the two series-connected 12 V batteries.
- If the issue persists, contact service@viridiparente.com.

10.13 Contact Viridi Customer Service

If an issue is identified with the RPSLinkEX 3Φ, please contact Viridi Customer Service at 1-866-984-7434

The following information will be requested:

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