RedEarth
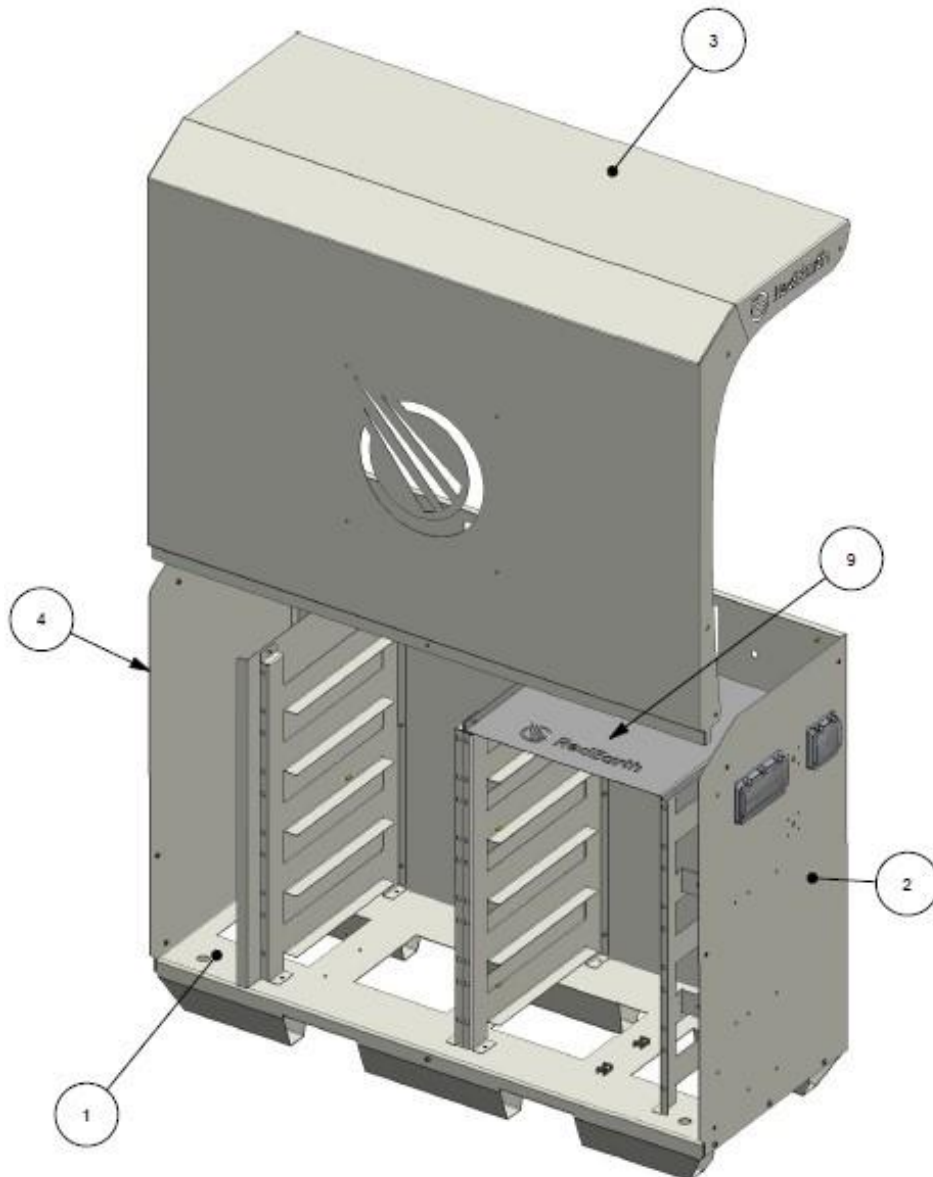ENERGY STORAGE

SunRise

Home Battery System

Model: SRS-3xx

Installation Manual

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Australia
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Web: www.redearth.energy

Safety

Symbol	Explanation
	Refer to the operating unstructions
	Indicates additional information, emphasized contents or tips that may be helpful.
	Caution, risk of electric shock.
	Caution, risk of danger.
	Do not touch live parts until 10 minutes after disconnection from the power sources..

The wiring diagrams and installation instructions are given as a guide only and compliance to appropriate standards is the responsibility of the installer. Relevant standards are listed below:

AS/NZS 3000:2018	Wiring rules
AS/NZS 5033:2014 (amdt 1&2)	Installation and safety requirements for photovoltaic (PV) arrays
AS/NZS 4509.2:2012	Stand-alone power systems-Design
AS/NZS 1170.2:2011	Structural design actions-Wind actions
AS/NZS1768:2007	Lightning protection
AS/NZS 3008.1.1:2017	Electrical installations – Selection of cables
AS/NZS 5139:2019	Electrical installations-Safety of battery systems for use with power conversion equipment

The SunRise must only be installed by suitably qualified personnel who have read and are familiar with its operation and hazards.

The battery provided with this system must be charged only by the Sungrow inverter. Do not attempt to charge the batteries with any other charger device or connect any devices directly to the DC battery bus.

In the advent of fire evacuate the area and call emergency services. A dry agent fire extinguisher should be readily available and used. DO NOT use water. Evacuate the area and call emergency services. Toxic gas may be produced if the battery catches fire.

Note: MSDS document is provided with the system and also can be found at www.redearth.energy

Do not use a damaged battery. Batteries should only be disposed of at an appropriate recycling centre. Please contact RedEarth for advice. Do not dispose of batteries in fire, the batteries may explode.

Safety

Working on the inside of the SunRise system is restricted to qualified personnel. RedEarth recommend installation by licensed electricians only.

A battery can present a risk of electrical shock and high short-sircuit current. The following precautions should ve observed when working on batteries:

- Remove watches, rings and other metal objects.
- Use tools with insulated handles
- Wear rubber gloves and boots.
- Do not lay tools or metal parts on batteries.
- Disconnect charging source prior to connecting or disconnecting battery terminals.
- Determine if battery is inadvertently grounded. If inadvertedly grounded, remove sourve from ground. Contact with any part of a ground battery can result in electrical shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance (applicable to equipment and remote battery supplies not having a grounded supply circuit).

In our efforts towards constant product enhancement, this document is subject to change at any time. Please visit www.redearth.energy and download the appropriate and latest version manual.

Overview:

The SunRise Home Battery is an Australian-made battery system designed to reduce electricity usage. The system generates and stores solar power for use day & night. The SunRise is fully certified to AS4777.2, IEC62109-1/2 & AS60950.1 and conforms to the Battery Safety Guide.

This manual describes the installation of the Model: SRS 3xx of the SunRise System.

A 1-phase version of the SunRise is also available.

The SunRise system can be installed with or without batteries. Batteries can easily be added later, as demand grows and budgets allow. Batteries must be of the same make and model.

- When installed with batteries excess PV solar electricity generated during the day will be used to reduce the amount of electricity baught from the grid at night. In addition the battery ensures essential household loads (fridges, lights etc) can be powered during a power outage.
- When installed without batteries excess PV generated during the day can be exported to the grid, which reduces your electicity bill. Ensuring you have the best electricity plan from your provider will improve your return.
- The SunRise system can also easily be retrofitted to an existing PV solar system.

The SunRise combines an AS4777.2 certified SunGrow 10kW inveter (SH10RT) with the globaly popular Pylontech lithium-ion batteries (H48074). With the advantege of scalability in energy storage, the Sunrise has multiple options to fit a budget:

- **Emergency Power:** The minimum amount of batteries aloud for this SunRise is zero (0) batteries. However, if opting for batteries, at least 5 batteries (17.75kWh) must be installed for correct operation. This option will not provide full 10kW to EPS circuits
- **Full Power:** To have the maximum (10kW) power available, the Sunrise must have seven (7) or more batteires.
- **Max Storage:** With the hability to hold 9 batteries, a fully loaded SunRise can store 31.95kWh of electricity.

For government rebates purposes, a maximum of 13.3kW (1.33 x 10kW) of solar panels can be connected to the system.

The SunRise SRS system can be remotely monitored via RedEarth Energy Storage's platfom as well as SunGrow's web portal or their app (iSolarCloud app).

Overview:

A typical complete installation of the SunRise Home Battery will require the electrical connection of the following items:

1. Meter (supplied) in the MSB.
2. AC cables from the MSB directly to the Grid terminals inside the SunRise system.
3. AC cables from the MSB directly to the Emergency Power Supply (EPS) terminals inside the SunRise system.
4. A standard Cat5/6 cable to connect the meter with the system.
5. Up to 3 arrays of PV solar panels to the MC4 conectors inside the unit.
6. Optional – an internet cable from the router to the system to provide more reliable communication for remote monitoring.
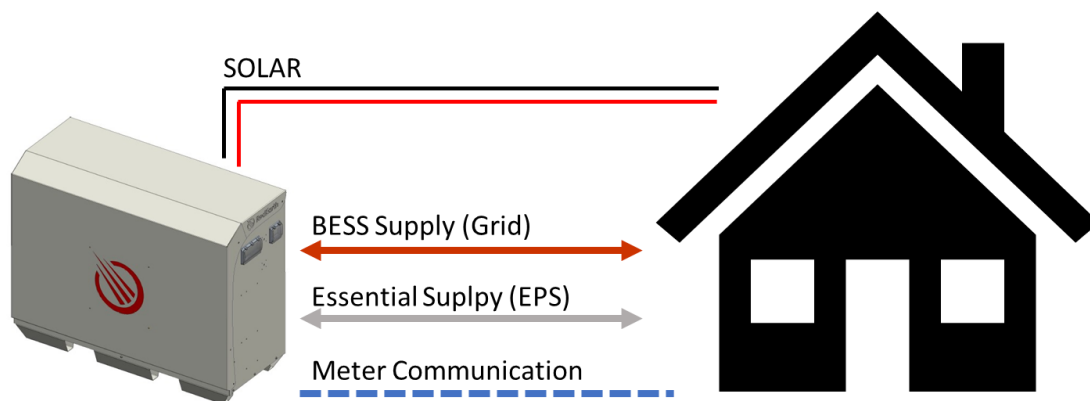

In addition, the installer will need to program the Sungrow inverter for the customer's specific requirements (e.g. level of grid-feed allowed by the utility) Use the Sungrow iSolarCloud APP operating in local mode for these modifications.

Once the system is up and running, the installer or end customer can call RedEarth Tech Support and set-up the monitoring page.
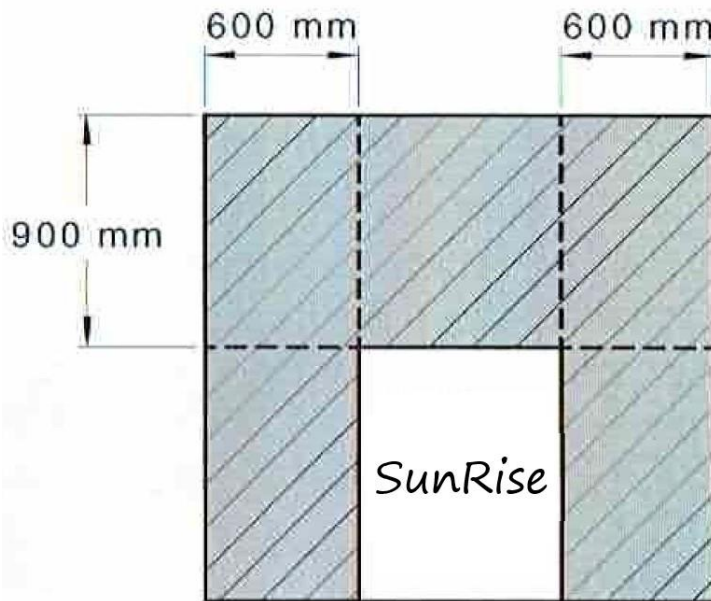
Note: The SunRise is not designed to act as the customers MSB as it does not include space for additional main & customer circuit breakers or RCDs.

Dimensions & Clearance

1322.0

536.9

1050.0
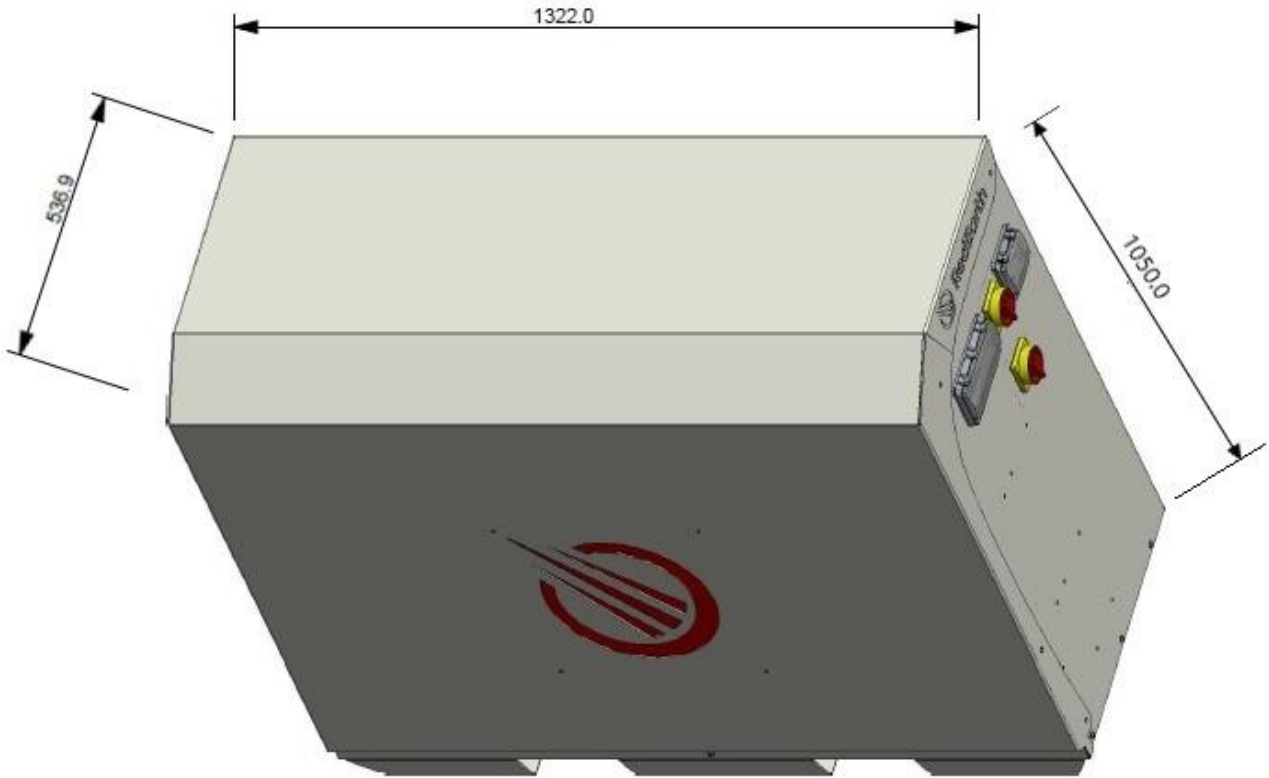
SunRise Weight: 450kg with 9x Lithium batteries (32kg per battery)
Dimensions: 1050 H x 1322 W x 537 D [mm]

600 mm   600 mm

900 mm

SunRise

**Sunrise Minimum Clearance
According to AS/NZS 5139**

Components

Opening the SunRise

RedEarth's SunRise Home Battery System can be internally accessed by removing the front cover. To do this, remove the nine (9) screws with a Philips screwdriver (PH2), lift and pull the cover away from the unit and place in a safe location.

> ⚠️ **Removal of the cover must only be done by qualified personnel.**

Inside

The SunRise can be divided into three main areas. On the Lefthand side (LHS) is the Inverter, in the middle are the batteries and the Battery Management Unit (BMU) and on the Righthand Side (RHS) are the electrical devices.

Lefthand Side (LHS)

Here you will find the Sungrow SH10RT facing outwards and all the connections to it are on the bottom side. Also in this area are the terminal blocks that will communicate with the meter.

Middle

This general area is where the batteries are located. A complete set will have two stacks of batteries with 5 on the left and 4 on the right. The top slot on the right will hold the BMU.

The terminals above the batteries are for the connection of the thermal relay and the heat extraction fans.
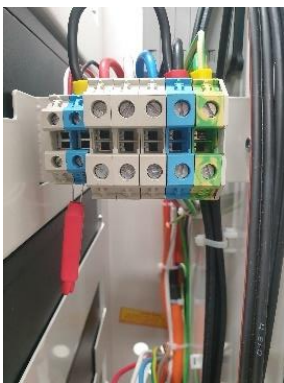
Righthand Side (RHS)

Here you will find all the connection points for the power cables and the protection devices.

Access to this area is narrow and limited, this is why the connection terminals and MC4 connectors have been brought forward for easy installation.

Components

The SunRise comes fully equipped with the following items.

- SunRise pre-wired enclosure
- Sungrow SH10TR inverter
- SunRise User Manual
- SunRise Installation Manual
- Battery MSDS
- Identification Sheet
- Testing Procedure
- Spare Parts Kit
  - Stickers and Traffolytes
  - 3x MC4 connectors
  - 1x M16 Gland
  - 5x M25 glands (Corrugated Conduit Adapter)
  - 2x Three-pole circuit breakers

Installation

8 steps for complete SunRise installation:

1. Transporting
2. Positioning
3. Solar Install
4. Electrical connections
   a. Solar
   b. Battery
   c. Grid & EPS
   d. Aux. Earth Fault Alarm
   e. MSB & Meter
5. Turn on/Shutdown
6. Commissioning
7. Monitoring and Communications
8. Finalising and Handover

Step 1.   Transporting

The SunRise system is wrapped in foam, heavy duty cardboard and supplied on a pallet, is fully set-up and ready to run. The system weighs around 450kg with 9 lithium batteries and should be handled with proper lifting equipment.

With two slots on the base, the Sunrise can be easily re-positioned with the help of a trolley jack or a forklift.

⚠ **WARNING: Personal Injury**
Use safe lifting techniques and standard safety equipment when working with this equipment.

Installation

Step 2.   Positioning

The SunRise is designed to be a freestanding weatherproof system. It shall at least 100mm from a wall to allow for proper ventilation. The SunRise shall not be placed in direct sunlight, this is to reduce the chances of overheating. It should also be placed as close as possible to the solar panels and the MSB to minimise voltage drop/power loss.

Cooling air flow passes up through the base of the system and then out the back.

Air vents are included in the base and rear of the system. Do not block them otherwise the system will overheat and shutdown. Once the system cools down again it can be restarted. The flow of air is assisted by an electric fan connected to one of the rear vents. It is controlled by an adjustable temperature switch set to 35ºC in the factory.

- Allow spacing around the system to comply with current installation standards.

With the help of a trolley, you can roll the system into place and secure it to the floor.

The SunRise has four holes in the base to allow for securing. This can be done with dynabolts or material appropriate screws.

NOTE: *SunRise can be installed indoors. However, proper ventilation must be installed according to AS/NZS 5139.*

NOTE: *Minimum distance between the wall and the back is 100mm*

SunRise Minimum Clearance
According to AS/NZS 5139

Step 3.   Solar Install

PV Racking & Panels should be designed and installed in accordance with AS/NZS 5033 and the latest CEC Installation guidelines. Caution should be taken in selecting PV panels and wiring method to ensure Open Circuit Voltage (V_{OC}) and Short Circuit Current (I_{SC}) is not exceeded.

🛈   *PV array must be floating (must not be grounded)*

🛈   *Ensure that the array is within the inverter specification and polarity of the array is correct.*

🛈   *PV modules must have an IEC61730 Class A rating*
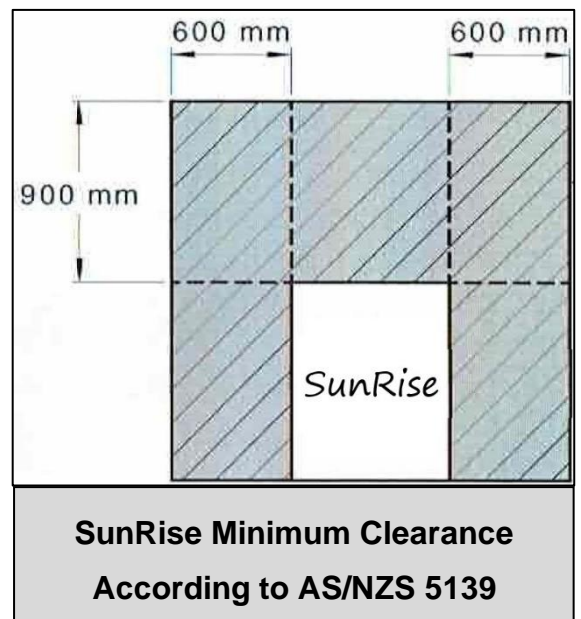
> **WARNING: The <u>Solar DC Isolator</u> on the SunRise must be in the off position before any solar panels are connected**

Installation

Step 4. Electrical connections

ℹ️ *Before any electrical connections are made, check all internal connections are secure and have not come loose during transport.*

ℹ️ *Ensure that all breakers and isolators, as well as those supplying power to the unit, <u>are turned OFF</u>.*

SunRise is designed to be an extremely easy install. SunRise, must be hardwired to a remote switchboard, which contains a MEN and earth stake. To do so, open up the unit as explained in "Opening the SunRise" and direct your attention to the RHS. Here are the connection point needed for an install.

4.1. Solar

SunRise has 2 Maximum Power Point Trackers (MPPTs) and allows for three arrays to be installed. Two of which connect to MPPT #1 and one to MPPT#2. For ease installation, each MPPT has its own isolation device and comes with the correct amount of connection points as allowed by the inverter.

To connect the solar power, insert the unterminated cables into the system and then terminate the correct MC4's on the cables. Once this in done, connect the PV cables to the unit and check for correct polarity and V_{OC}.
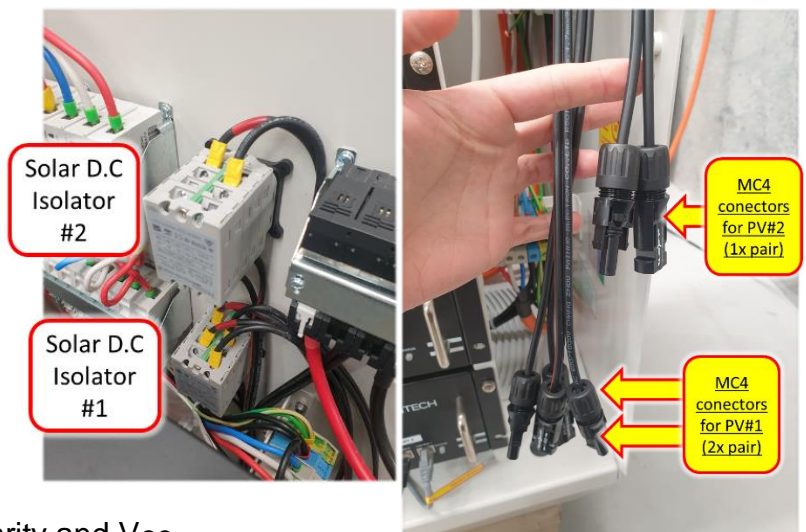
WARNING
400V$_{AC}$ present in enclosure
May become live automatically

4.2. Battery

Tested and commissioned in RedEarth factory, the batteries can be found in the middle section of the SunRise.

If the batteries are to be removed during final transportation/positioning, please see below the procedure and correct arrange.

To remove the battery cables, press the button on the side of the terminal and pull it straight up.

To attach the cable to the battery, simply push it onto the terminal until you hear a click. Be careful to connect the black cable to the black terminal and the red/orange to the red/orange. If the battery polarity is connected incorrectly it will damage the SunRise system.
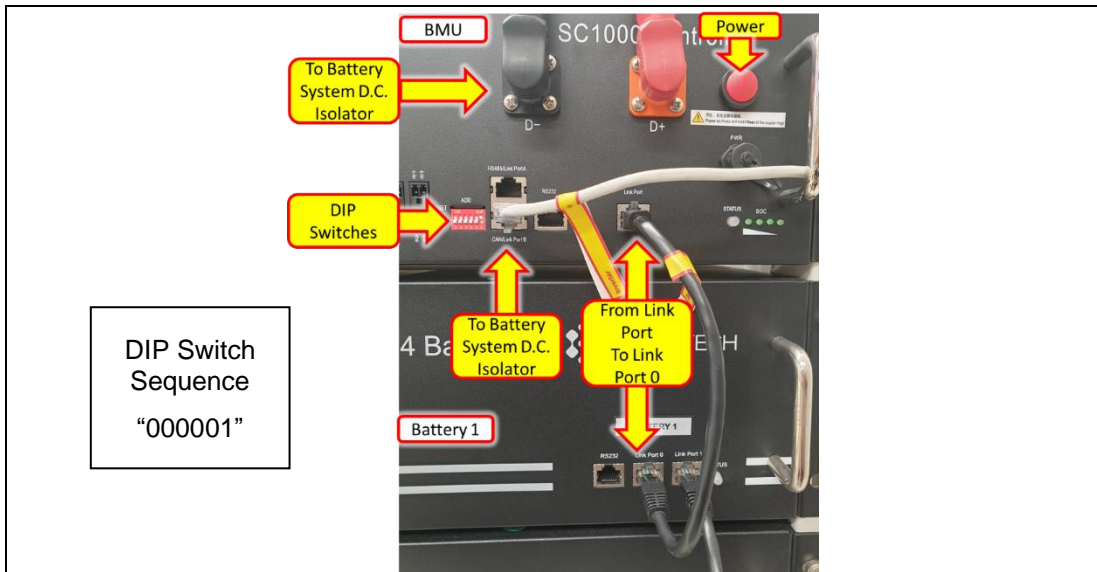
Installation
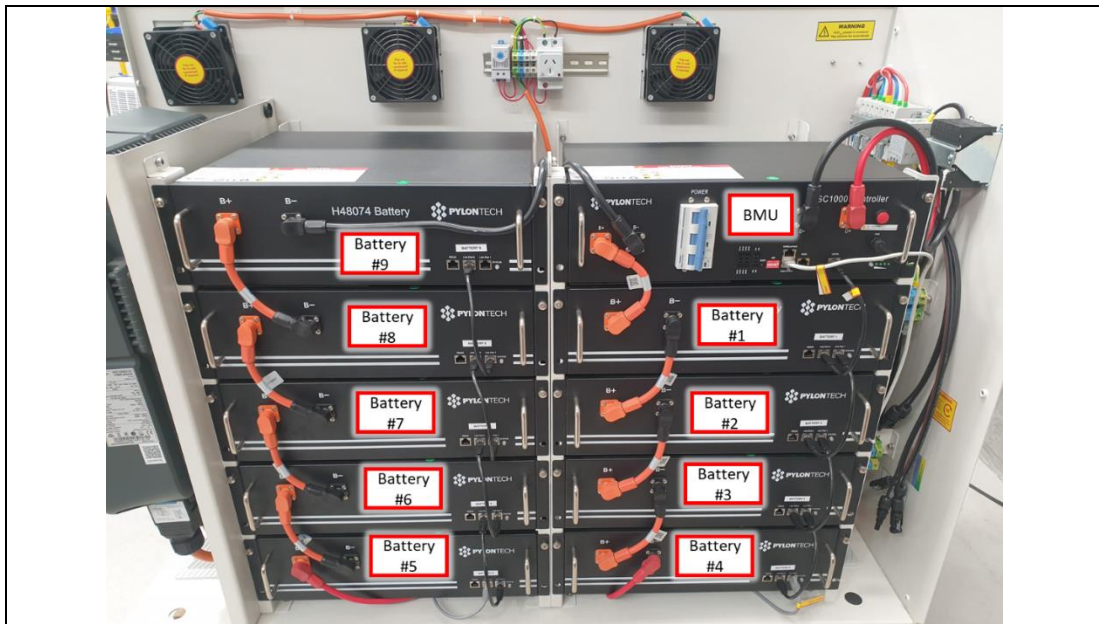
Battery Sequence Arrange

Battery Power Connections

Installation

Detailed BMU Connections

DIP Switch Sequence "000001"

Secure BMU and Batteries with supplied screws

Installation

4.3. Grid

The Terminal Blocks labelled as "Grid" identify the side of the system/MSB connected to the grid as well as the non-essential circuits.

To connect the cables to the system, secure the exposed end of the cable into the correct terminal block and secure by tightening with a flat-head screwdriver to .5N•m.

WARNING
INVERTER 3-PHASE ROTATION FORWARD 3Ø
Use appropriately-sized AC cable to manage voltage drop.
Maximum current 25A$_{AC}$

4.4. Emergency Power Supply (EPS)

The Terminal Blocks labelled as "EPS" identify the side of the system/MSB connected to the essential circuits.

To connect the cables to the system, secure the exposed end of the cable into the correct terminal block and secure by tightening with a flat-head screwdriver to .5N•m.

As the output is floating, the neutral cable of GRID side and EPS side must be connected together according to the wiring rules AS/NZS_3000. Otherwise EPS function will not work. See Appendix A: Single Line Diagram – Main Switchboard

4.5. Auxiliary Earth Fault Alarm

ℹ️ The cable for EPS must sized to support a maximum of 15.2A according to AS/NZS 3008.1.1:2017

RedEarth's Sunrise has two terminal blocks for the installation of a third-party alarm. These 2 terminals are on the same din rail as the EPS terminals and can be identified by their smaller size, with the grey terminal set as the active and the blue the neutral.

To install the third-party alarm, replace the resistor (wrapped in heat-shrink) with the new device.

ℹ️ This system complies to IEC 62109-2 clause 13.9 for earth fault monitoring.

ℹ️ The SunRise is compatible with a 30mA type A RCD

ℹ️ Earth connection must be made to the same switchboard as the power cables

ℹ️ All cables must be sized to appropriate Australian standards and not be less than 2.5mm²
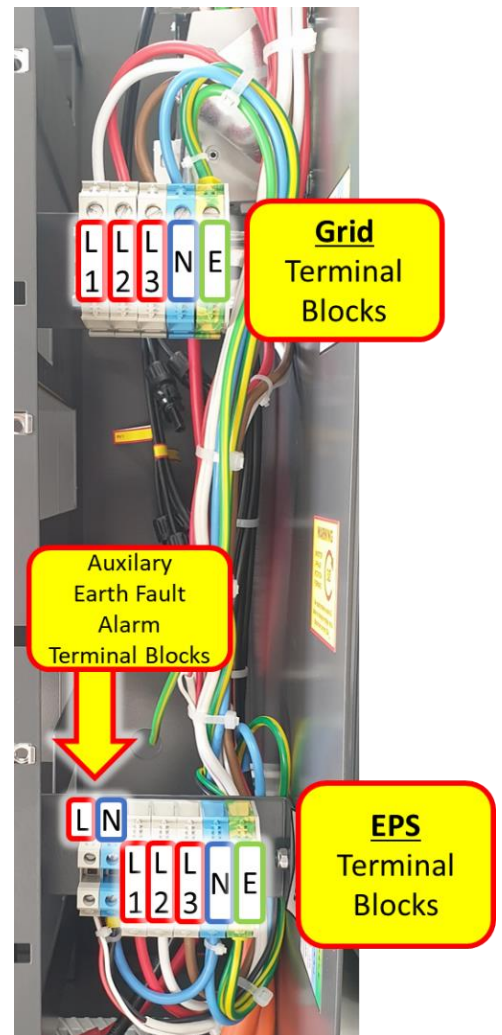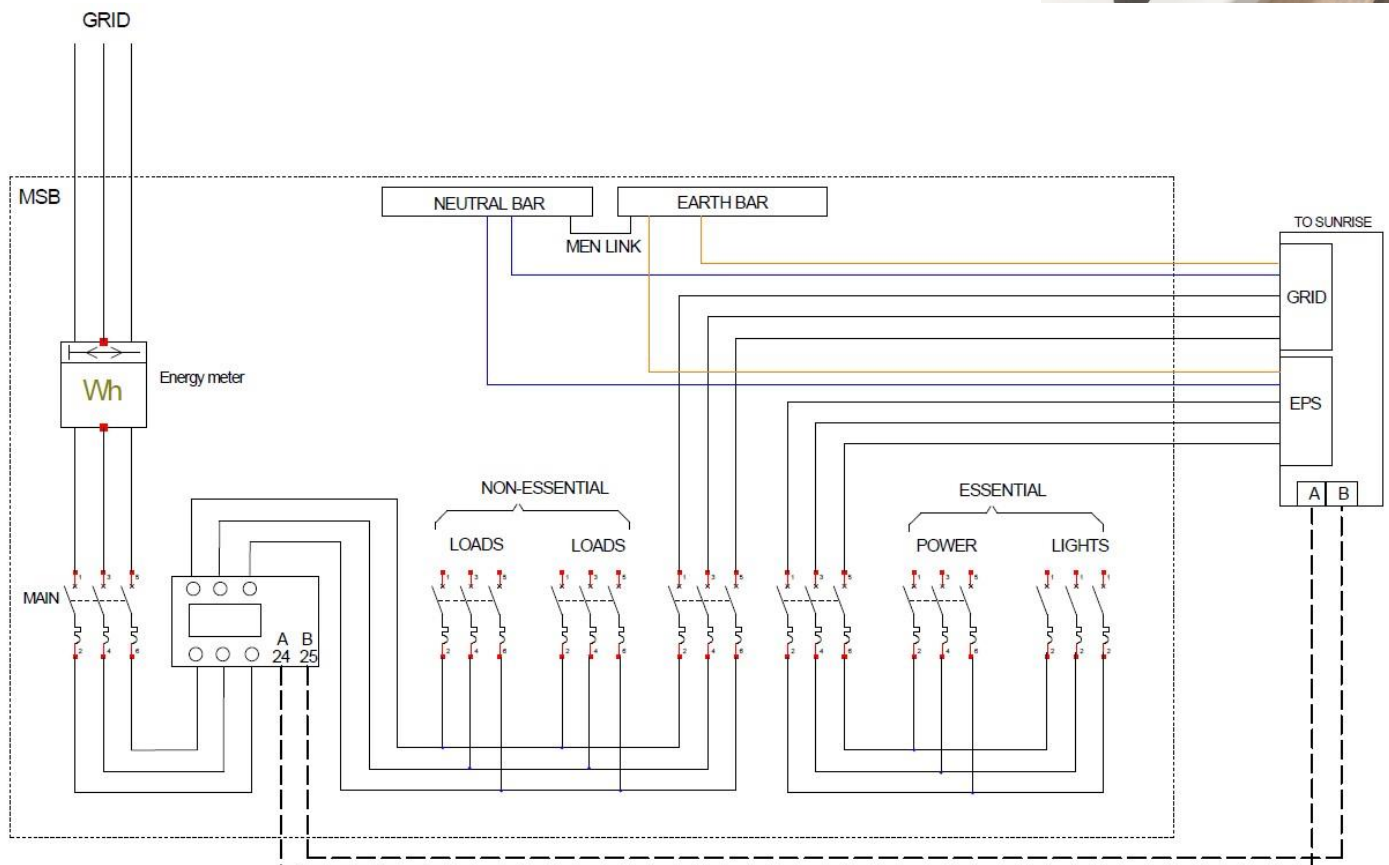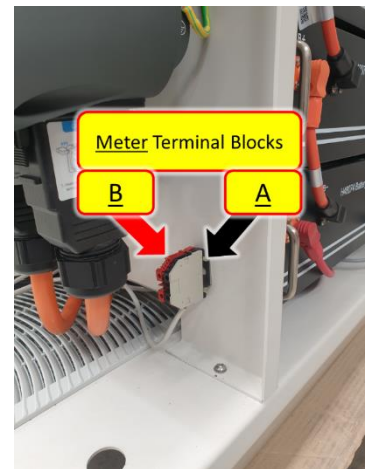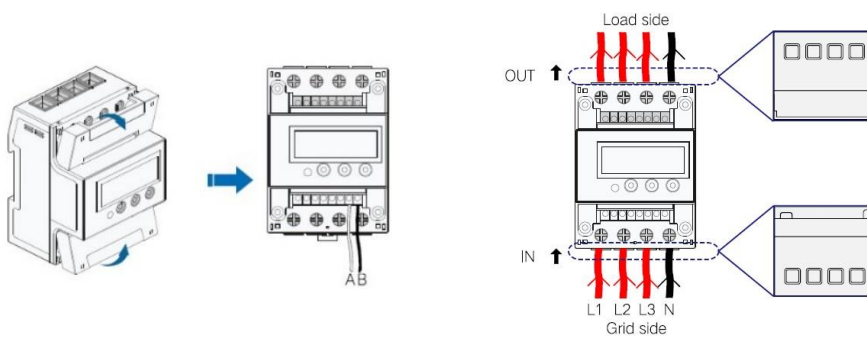
Installation

4.6. MSB & Meter

The Meter must be installed immediately after the main switch in the MSB and will work as a pass-though (including the neutral) as shown.

The communication between the meter and the system can be done with a CAT5 or CAT6 cable. Using 2 of the strands from the CAT cable, connect one (A) to the terminal 24 and the other (B) to terminal 25, as shown.

Inside the SunRise and underneath the inverter are the terminals that the other end of this CAT cable will connect to. Strip the end of strands A and B and connect them to the correct terminals.

.

Installation

Step 5. **Turn ON and Shutdown Procedure**

All devices for Turn On procedure are located on the RHS of the unit and can be also identified by the number in front of it.

To **Turn ON** the unit for the first time, you must follow the steps below:

1. Switch ON the BMU breaker;
2. Press the Power (red) button on the BMU;
3. Switch ON the BATTERY SYSTEM D.C. ISOLATOR (#3);
4. Switch ON both SOLAR D.C. ISOLATORS (#2);
5. Turn the ByPass Switch to Normal Operation (upwards);
6. Turn ON all AC circuit breakers (#1);

ⓘ *Steps 1 and 2 are done on the inside of the unit and must be done by a certifies electrician only. For all other times, the Turn ON procedure is the reverse of the shutdown procedure.*
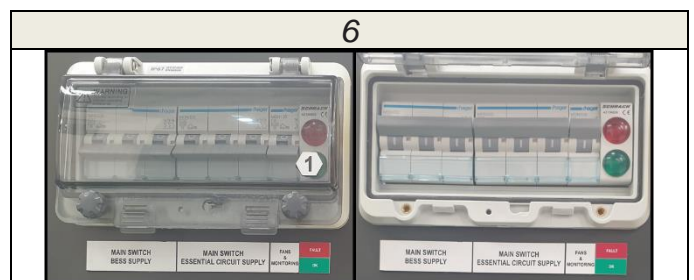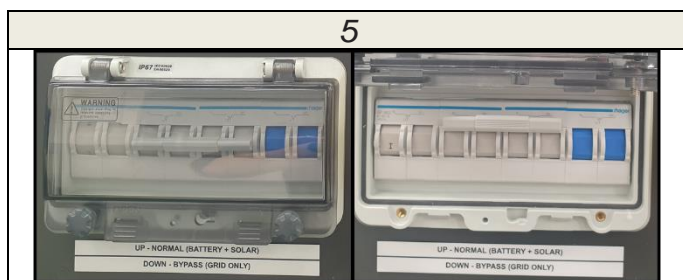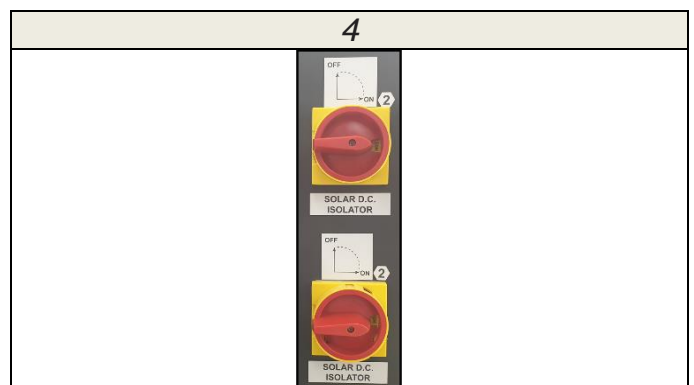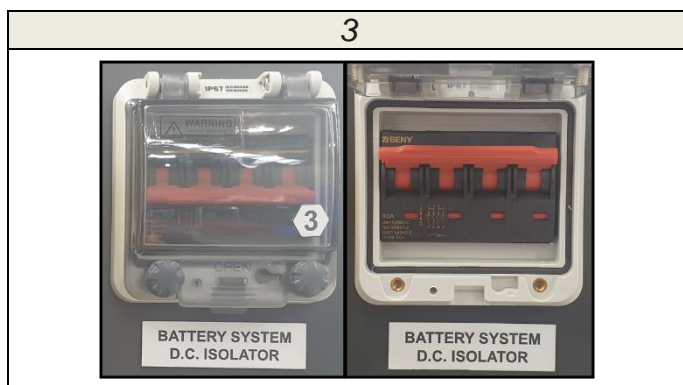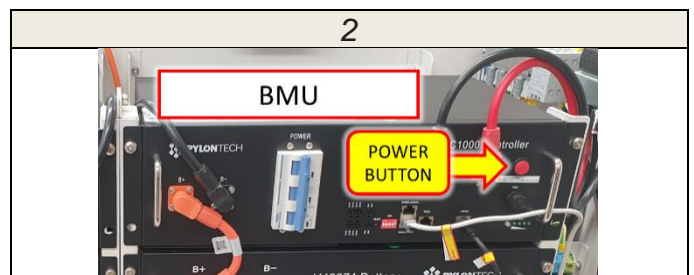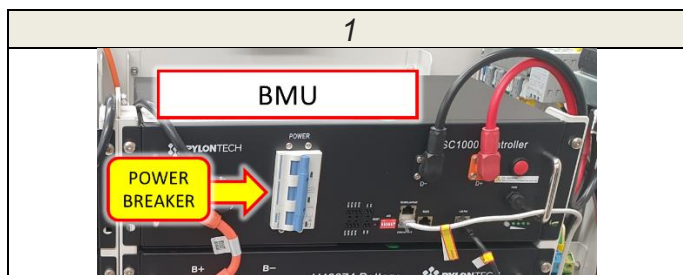
Installation

The **Shutdown Procedure** is the reverse of the "turn on" procedure and is shown below. This procedure can be found on the RHS of the unit.

1. Turn OFF all AC circuit breakers (#1);
2. Switch OFF the SOLAR D.C. ISOLATORS (#2);
3. Switch OFF the BATTERY SYSTEM D.C. ISOLATOR (#3);

SHUTDOWN PROCEDURE

① Switch OFF all AC circuit breakers

② Switch OFF all SOLAR D.C. ISOLATORS

③ Switch OFF the BATTERY SYSTEM D.C. ISOLATOR

WARNING

BATTERY SYSTEM D.C. ISOLATOR DOES NOT DE-ENERGISE THE BATTERY SYSTEM AND BATTERY SYSTEM CABLING

1

2

3

.
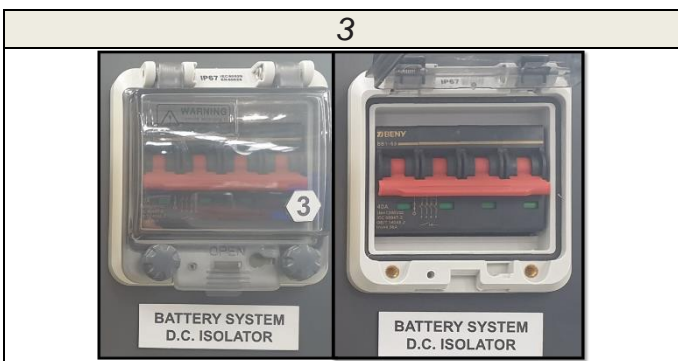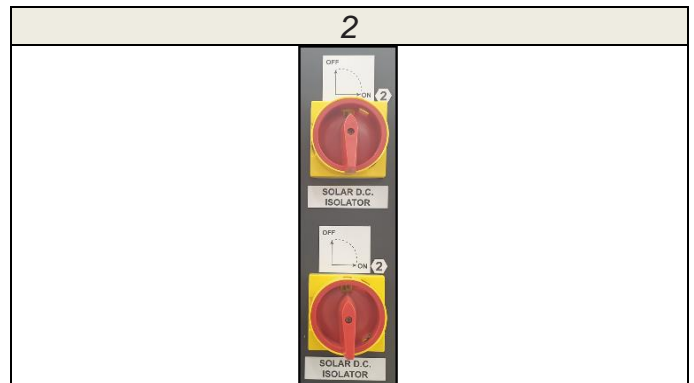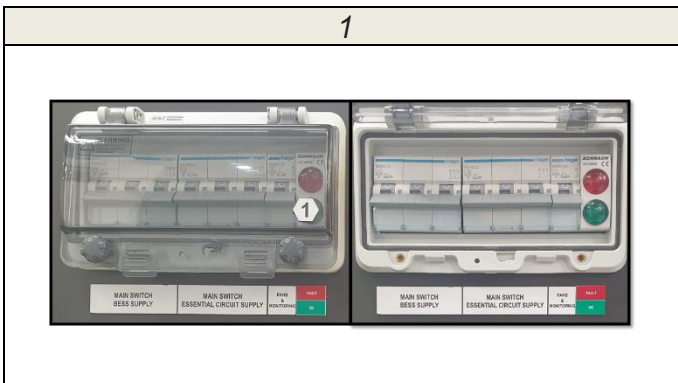
Installation

Step 6. Commissioning

The SunRise is commissioned and tested in RedEarth's factory to guarantee correct operation of the system as ordered. However, last-minute parameter adjustments may be required (eg. Export limitation). The procedure below explains hot to access the inverter via "Local Mode" on the ISolarCloud APP. To Change parameters, carefully follow the procedure in Chapter 8 of the Sungrow User Manual on how to make these alterations without compromising the existing configuration.

NOTE: This must be done by a qualified person.

Disconnect 4g

Sync to the dongle WiFi;

SG-B20*****XXXX

PW: B20*****XXXX

Open the APP (iSolarCloud) and access via "Local Mode" with the following account and password.
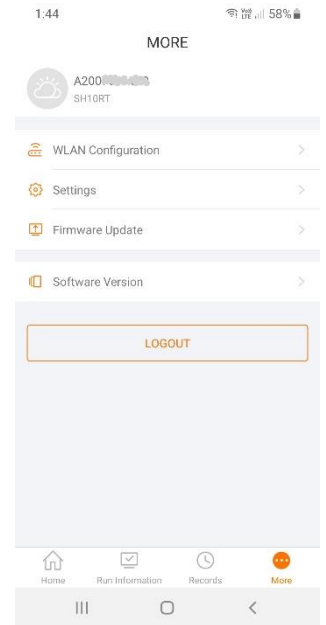
Account	user
Password	user or PW1111

ℹ️ For compliance with AS/NZS 4777.2:2020 please select from Australia Region A/B/C for the grid code. Please contact your local grid operator for which Region to select

Fan Control Adjustment:

The thermostat is located inside the unit next to the GPO's. This automatically starts the fans once the temperature rises above the set-point. This set-point can easily be adjusted with a small screwdriver. It is set to 35º Celsius in the factory.

Installation

Step 7.   Monitoring and Communication

There are currently two ways to enable monitoring to the SunRise.

- 4G Antenna
- Hardwire to LAN

The first option uses RedEarth's monitoring hardware and requires positioning the antenna in a good 4G reception area. If installing in a closed area i.e. Shed, remember to check the 4G signal with the doors closed as this will affect the strength of the signal.

Once this is done as well as the start-up procedure, call RedEarth – Tech Support to confirm its operation.

The second option requires a CAT5 or CAT6 cable with one end plugged into the customer's router and the other into the RJ45 port on the monitoring hardware.

As long as the 4G reception is adequate (or properly hardwired to the router) this does not require commissioning as it is done and tested in factory

ⓘ *Installer login is available in addition to customer logins. Contact Tech support for information.*

Step 8.   Finalising and Handover

Before handing over the system, go through the following items and be sure that they have been completed.

- The PV cables have the correct polarity and are correctly connected to the MC4s provided.
- Grid and EPS cable are tightly connected to the terminals block and have correct phase rotation.
- Proper weatherproof seal on the entrance/exit gland from the SunRise
- The battery terminal connections are tight. (check after transportation)
- Check that the system operation is correct in all situations.
- Check screws holding the lid down are in place and tight. Pull on the vents and fans to check that they are properly attached and will not come loose.
- Explain to the customer how the system operates.

How to Operate a SunRise

NORMAL OPERATION:

In this operation mode the Sunrise will operate as explained above. Where the system uses solar, battery and grid depending on the situation.

All of the breakers and isolators should be on the ON position and the ByPass Switch should be in the upwards position (I).
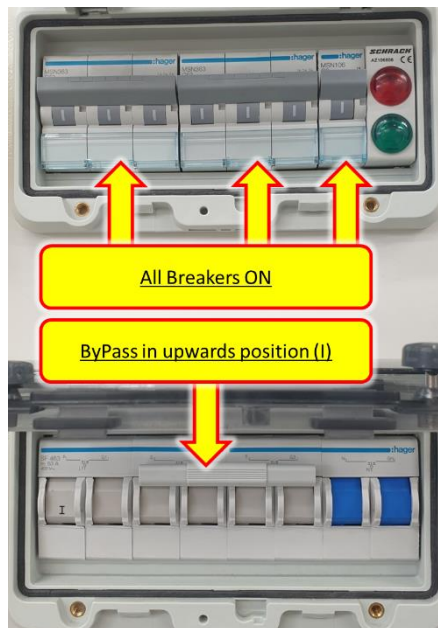
BYPASS OPERATION

In the ByPass operation mode, the system will completely bypass the inverter and the grid will provide power directly to the EPS loads.

For this to happen, all breakers and isolators should be turned OFF and the ByPass Switch should be in the downwards position (II)
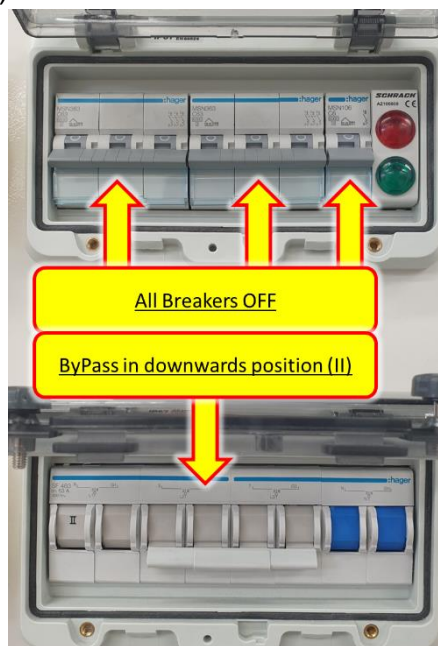
Services and options available for your SunRise

RedEarth can provide several options for the SunRise;

- Membership of the RedEarth Customer Community
- Additional batteries for system expansion
- Remote and ongoing monitoring option
- Extended warranty option
- Miscellaneous spare parts
- SunRise Power Kit: PV panels, racking and pre-terminated PV cables

RedEarth's Monitoring and Customer Community Monitoring

Visit us in Brisbane

Aussie. Tough.

NEXT 7.7 MILLION² km

AUSTRALIAN MADE AND OWNED

SunRise	**BlackMax**	**S Series**	**DropBear**	**BushPig**
RESIDENTIAL ON-GRID HOMES	SHEDS, WEEKENDERS & HOMES	REMOTE HOMES & SMALL ENTERPRISES	LARGE REMOTE HOMES & SMALL TO LARGE ENTERPRISES	OFF-GRID FOR REMOTE STATIONS, INDUSTRIAL PROPERTIES & LARGE RESIDENTIAL

📞 1800 733 637
✉ sales@redearth.energy
🖥 redearth.energy

RedEarth ENERGY STORAGE

Appendix A

Single Line Diagram - Power

CONTROL EQUIPMENT DETAILS

BATx - BATTERY 1 TO 9
BMU - BATTERY MANAGEMENT UNIT
BPS - BYPASS SWITCH
Fx - FAN 1, 2, 3
IS1 - ROTARY ISOLATOR FOR MPPT#1
IS2 - ROTARY ISOLATOR FOR MPPT#2
LD - GREEN LED
MC4 - CONNECTION POINTS FOR PV ARRAYS
P1 - INTERNAL GPO
Q1 - GRID (MCB), 32A
Q2 - BACKUP (MCB), 32A
Q3 - FANS & GPO (RCBO), 6A
Q4 - BATTERY SYSTEM DC ISOLATOR, 40A
TB1 - TERMINAL BLOCK FOR GRID CONNECTION
TB2 - TERMINAL BLOCK FOR BACKUP CONNECTION
TB3 - TERMINAL BLOCK FOR METER CONNECTION
TB4 - TERMINAL BLOCK FOR EARTH FAULT ALARM
TR - THERMAL RELAY

BATTERIES

PYLONTECH   3.552 kWh 48Vdc EACH
5 - 9x H48074

Appendix A

Single Line Diagram - Communications
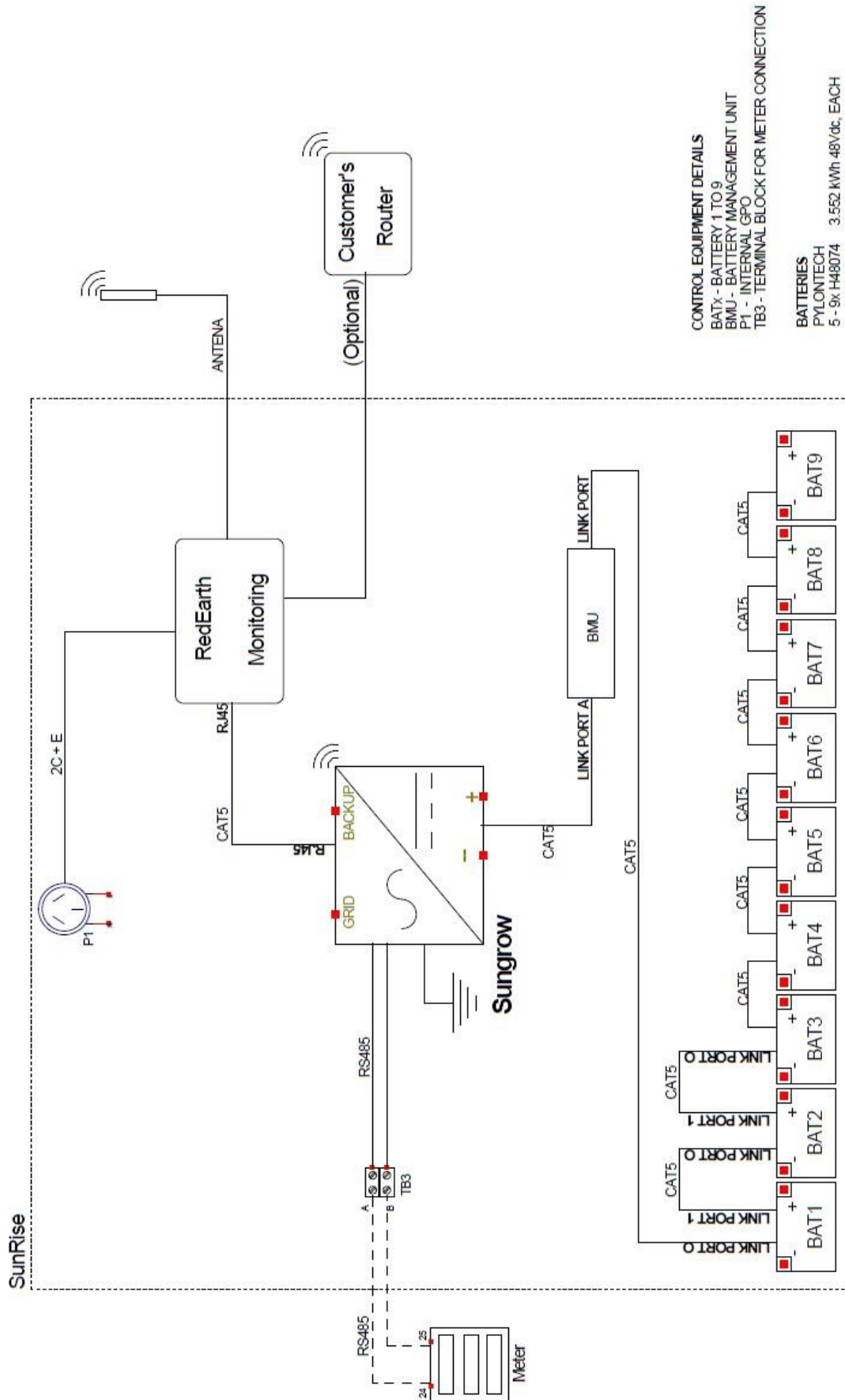
CONTROL EQUIPMENT DETAILS
BATx - BATTERY 1 TO 9
BMU - BATTERY MANAGEMENT UNIT
P1 - INTERNAL GPO
TB3 - TERMINAL BLOCK FOR METER CONNECTION

BATTERIES
PYLONTECH   3.552 kWh 48Vdc, EACH
5 - 9x H48074

Appendix A

Single Line Diagram – Main Switchboard

RedEarth
ENERGY STORAGE
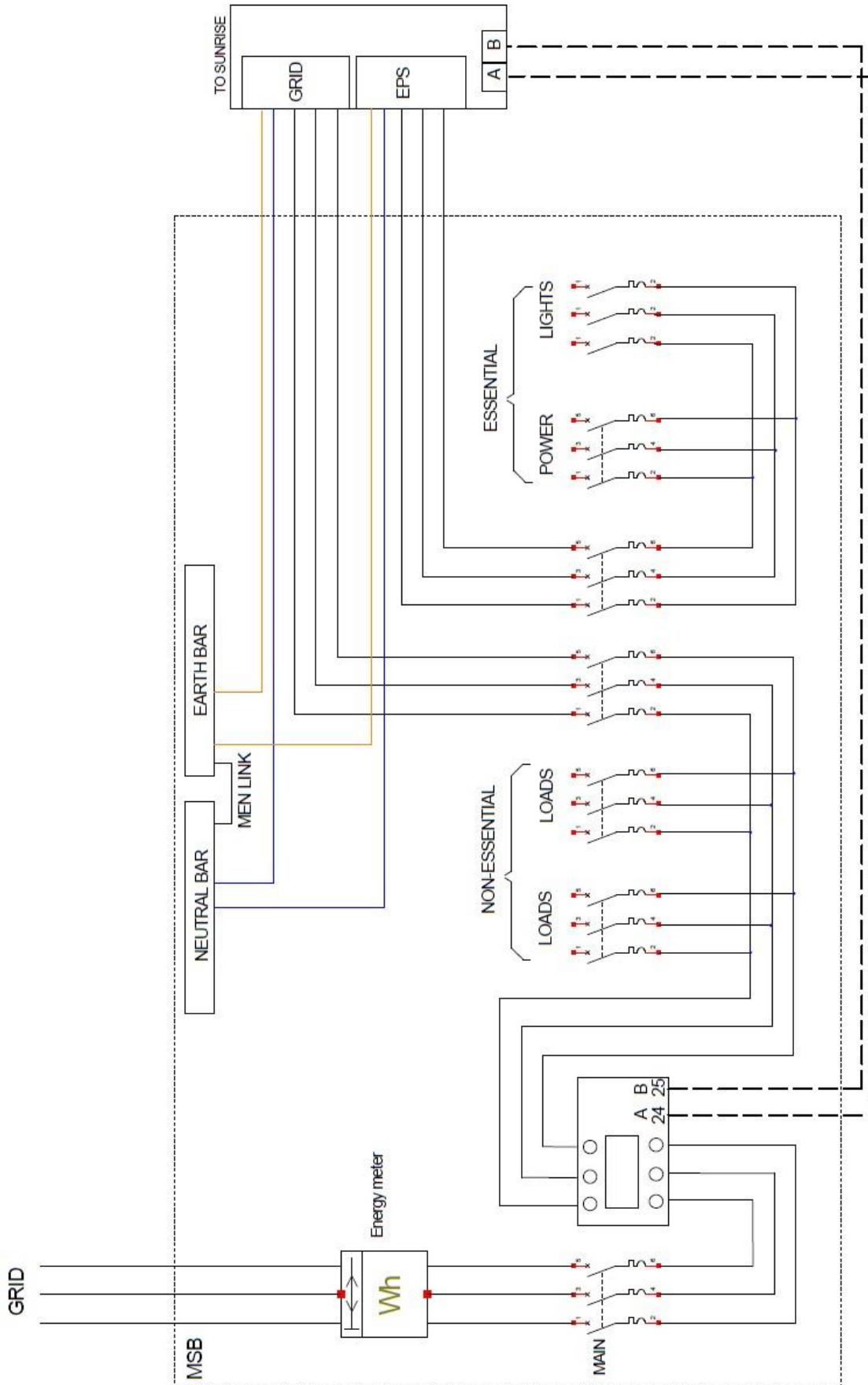
Appendix B

Technical Specifications – SunRise

PV Input		
MPP Voltage Range	$200V_{DC} - 600V_{DC}$	
Max. Input Voltage (V_{OC})	$600V_{DC}$	
Max. Input Current	$12.5\ A_{DC}$	$12.5 + 12.5\ A_{DC}$
Short Circuit Current (I_{SC})	$16\ A_{DC}$	$16 + 16A_{DC}$
Battery		
Battery type	Lithium-Iron Phosphate	
Nominal Energy Capacity	17.7 to 31.9 kWh* (3.55 kWh per Battery)	
AC Input and Output		
Rated AC Voltage	230 V / 400V	
Rated AC Frequency	50 Hz	
Max. Input Power	20 600 VA	
Max. Input Current	$30.0\ A_{AC}$	
Rated Output Apparent Power(VA)	10 000 VA	
Max. Output Power	10 000 VA	
Max Output Current	$15.2\ A_{AC}$	
Power Factor Range	0.8 lead – 0.8 lag	
EPS Output		
Max. Output Power	7200 - 10 000 VA*	
Max Output Current	$10.4 - 15.2\ A_{AC}$*	
Max Output current (Batt. Only)	$30A_{DC}$	
Peak Output Power	12 000VA, 5min	
Supported DRM	0, 1, 4 - 8	

Safety Class/Enclosure	Class I / IP44
Topology (Solar/Battery)	Transformerless Non-isolated / Transformerless Non-isolated
Pollution degree (PD)	2
Ambient Temperature	-20ºC … +50ºC
Humidity Range	4% … 100%
Maximum Altitude	4000m
Overvoltage Category	III (MAIN), II (PV)(BATTERY)
Device Voltage Classification	DVC-C

*Depending on number of connected batteries.

Appendix B

Technical Specifications – Sungrow

INPUT/OUTPUT AC POWER	
Nominal AC Power output	10 000W
Max AC Apparent Power output	10 000VA
Nominal Current output	14.5A
Max. Output Current (continuous)	15.2A
Current (Inrush)	17.4A, 5min
Maximum Output Fault Current	17.4A, 5min
Max. Output Overcurrent Protection	20A
Nominal Voltage	230 / 400V
Voltage Range	270 – 480V
Frequency Range	45 – 55Hz
Power Factor	>0.99 / 0.8 leading to 0.8 lagging
Connection type	Terminal Block (max. 16mm^2)

PV ARRAY INPUT		
Max. PV input power	15 000W	
Max. Voltage	600 V$_{DC}$	
MPPT Voltage range	200 - 600 V$_{DC}$	
Startup Voltage	250 V$_{DC}$	
N^o of MPPTs	2	
Short Circuit Current (I$_{SC}$)	16A	32A(16+16)
Max. input current	12.5A	25A (12.5A/12.5A)
PV strings per MPPT	1	2

PROTECTION	
Overvoltage category	III [Main], II [PV] [Battery]
Anti-islanding	Frequency Shift
AC Short circuit	Yes
Leakage current	Yes
Backfeed Current into Array	0A
Compliance	AS/NZS 4777.2, IEC 62109-1/2

EPS (Emergency Power System)	
EPS rated Power	10 000VA
Peak EPS rated Power	12 000VA, 5min
Current (Inrush)	17.4A, 5min
Maximum Output Fault Current	17.4A, 5min
Max. Output Overcurrent Protection	20A
Nominal Voltage	230 / 400V
Frequency	50 Hz
Changeover time to EPS	<20 ms

BATTERY	
Type	Lithium-ion
N^o of batteries	0, 5 to 9
Nominal Capacity range	17.7 to 31.95 kWh
Voltage range	200 - 486 V$_{DC}$
Max Charge/Discharge Current	30A / 30A
Max Charge/Discharge Power	10 600W / 10 600W
Communication	RS485/CAN

Environmental Ratings		
IP Rating		IP43
Max. efficiency		98.4%
Operating Temperature		-25ºC ~ +60ºC
Maximum Altitude		derating over 3000m

Appendix B

Pylontech BMU Specifications

Models	SC1000-100S
Related Product	H1/H2
Controller Working Voltage	200~1000Vdc
System Operation Voltage	200~1000 Vdc
Charge Current (Max.)(A)	100
Discharge Voltage(Vdc)	200~1000
Discharge Current (Max.) (A)	100
Self-Consumption Power (W)	8
Dimension(W*D*H, mm)	442*390*132
Communication	RS485/CAN
Protection Class	IP20
Weight (kg)	8.2
Operation Life	15 years
Operation Temperature	-20~65℃
Storage Temperature	-40~80℃
Product Certificate	TÜV,CE

Pylontech Lithium Battery – H48074 Specifications

Models	H48074
Capacity(kWh)	3.55
Nominal Voltage(Vdc)	48
Nominal Capacity(AH)	74
Voltage Range(Vdc)	45~54
Depth of Discharge	80%(10~90%)
Dimension(W*D*H,mm)	442*390*132
Communication	RS485/CAN
Protection Class	IP20
Weight(kg)	32
Operation Life	10+Years
Operation Cycle Life	4000
Operation Temperature	0~50℃
Storage Temperature	-20~60℃
Product Certificate	TÜV,CE

I_{SC} (kA)	
5 to 9 batteries:	3.2kA