SkyBox
MAX-I

DESIGNED FOR
DYNAMIC SCALING

Installation and Operation Manual 2026

This guide is a simplified version of the Manufacturers guides – please see: **Sky Energy Downloads**

Safety Notice

⚠ Works performed inside the SkyBox MAX I must be done by a qualified electrician.

General Safety

FIRE

BSLBATT Batteries are a lithium-iron-phosphate based battery (LFP). It is the safest lithium chemistry. However, in the unlikely event of a fire, or if the unit emits smoke, sparks, flames, or vapour, produces a burning smell, becomes excessively hot or swells, leaks, or makes unusual noises,

Immediately:

- Evacuate the area.
- Call Emergency Services (000).
- Do NOT attempt to extinguish the fire.
- Do NOT touch, move, or handle the system or the batteries.
- Do NOT use water or household extinguishers unless trained and safe to do so.

Note: There must be a Safety Data Sheet for the BSL battery left with the Main Switchboard.

- The SkyBox MAX I must only be installed by suitably qualified personnel who have read and are familiar with its operation and hazards.
- Do not attempt to charge the batteries with any other charging device or connect any device directly to the DC battery bus.
- Do not use a damaged battery.
- The shutdown procedure can be found inside the SkyBox next to the DC battery isolator.

Installation Safety

☞ 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 5033:2021 Installation and safety requirements for photovoltaic (PV) arrays AS/NZS 4509.2:2012 Stand-alone power systems-Design.
- AS/NZS 1170.2:2021 Structural design actions-Wind actions.
- AS/NZS1768:2021 Lightning protection.
- AS/NZS 3008.1.2:2017 Electrical installations – Selection of cables.
- AS/NZS 5139:2019 Electrical Installations-Safety of battery systems for use with power conversion equipment.

☞ A battery can present a risk of electrical shock and high short-circuit current.

☞ Do not attempt to move the SkyBox MAX I with batteries installed.

☞ Lifting hazard. Observe proper lifting techniques.

This document is subject to change at any time, please follow the install guide provided with your SkyVolt model.

Contents

Parts

Parts Supplied

- Deye Inverter – CT Meter included with inverter
  - 3P Eastron energy meter
- SkyBox MAX I battery tower
  - Battery modules
  - HV control box (Battery isolator built-in)
  - Battery leads to connect to inverter
  - Comms cables to connect between batteries and HV control box
- Deye HV combiner box (If required)
  - When using the Deye HV combiner box you will require 4 lengths of 25mm HV rated orange flexible cable between combiner and inverter as well as lugs and heat shrink (25mm M10 lugs at combiner – inverter side supplied with inverter).

All parts required to connect SkyBox MAX I to inverter are included except earth cable between inverter and SkyBox MAX I. A BMS cable is included, but instructions are available to make your own.

NOTE: The battery Isolator is built into the SkyBox MAX I HV Control box

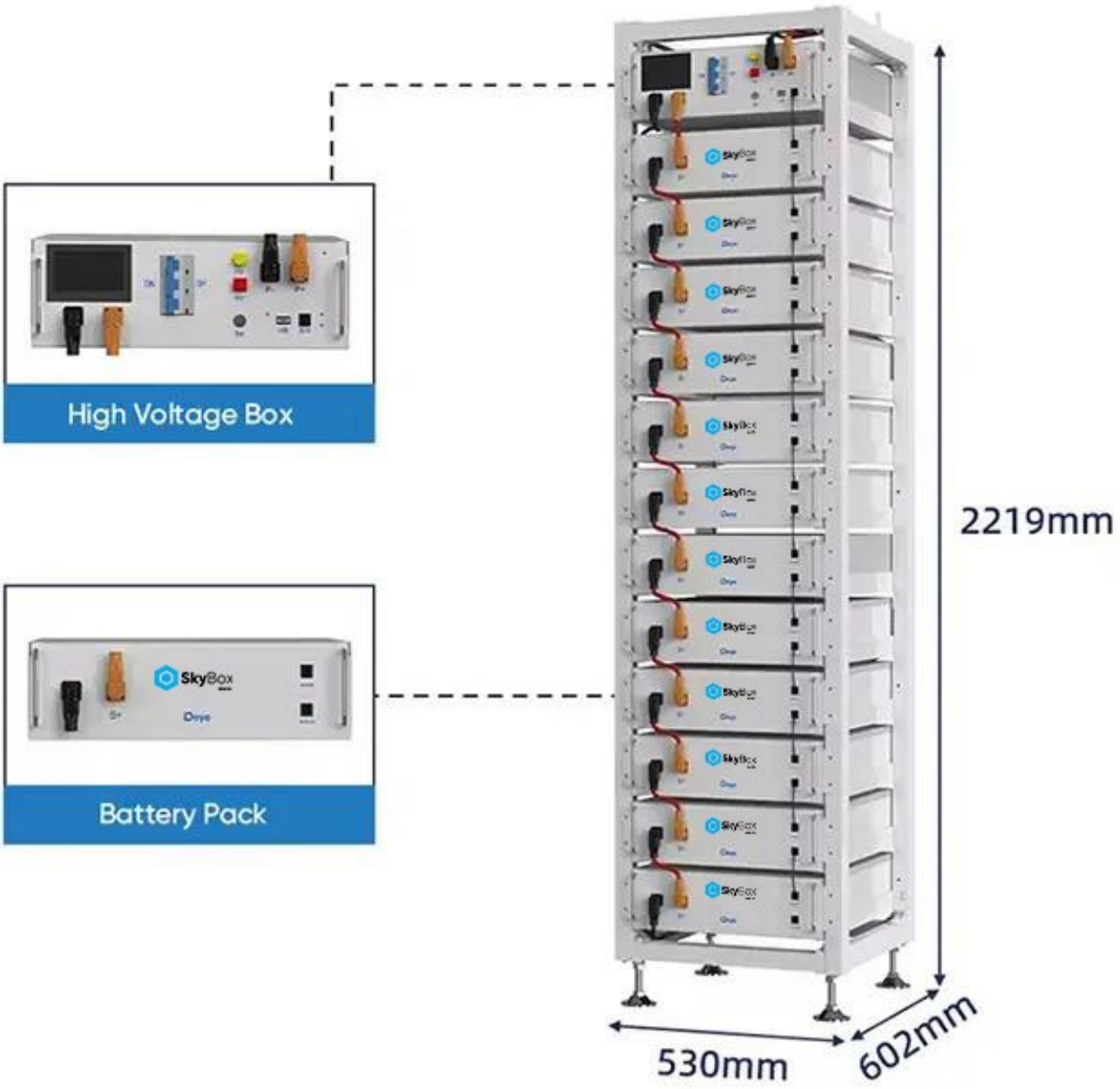
Parts Required

1. Installation dependent bring cable trunking / tray to mechanically protect cables as required between MAX-I and Inverter.
2. AC cables and breakers sized appropriately for site requirements.
3. Cat5 cable for Meter connection or CT cable extension.
4. PV and AC cable and parts to connect panels to inverter and inverter to MSB.

See the Inverter manual for termination methods.

SkyBox MAX I Cabinet Dimensions

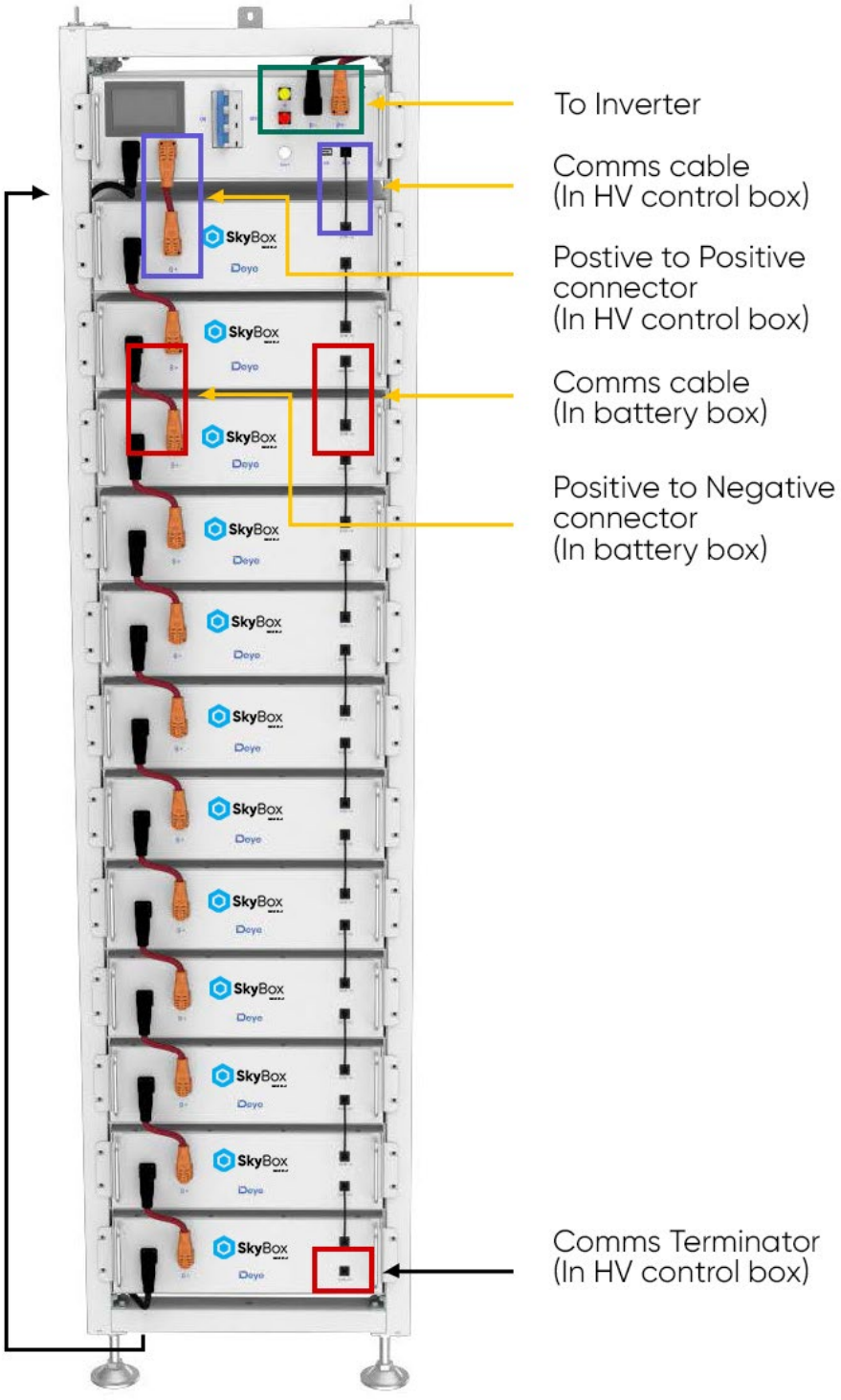
IP RATING: IP20 - PRODUCT WEIGHT: Up to 610kg (12 modules)



Battery Module Connection

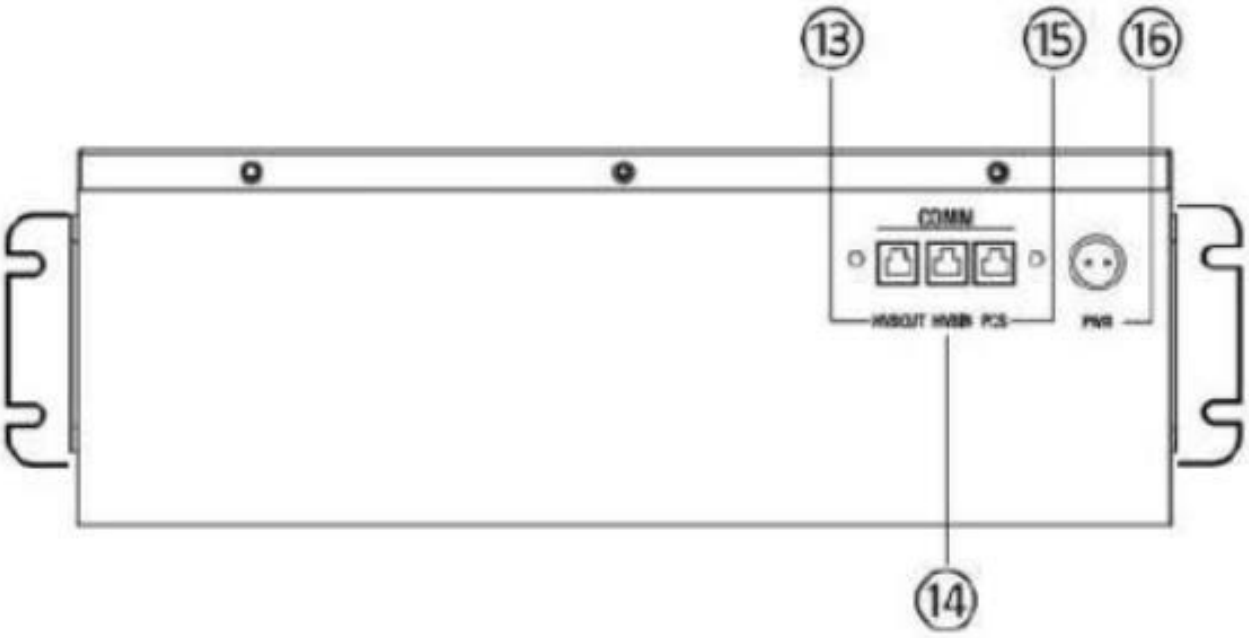
- Follow instructions provided with the battery rack to assemble.
- Insert Battery and HV control box modules into rack, use screws provided with rack to fix modules into the rack.
- Connect cables, comms and terminator as in the photo provided.

Ensure all power connectors are pressed in FIRM to prevent poor connection.



Battery to Inverter Connection

BMS connection from HV Control box to Inverter.

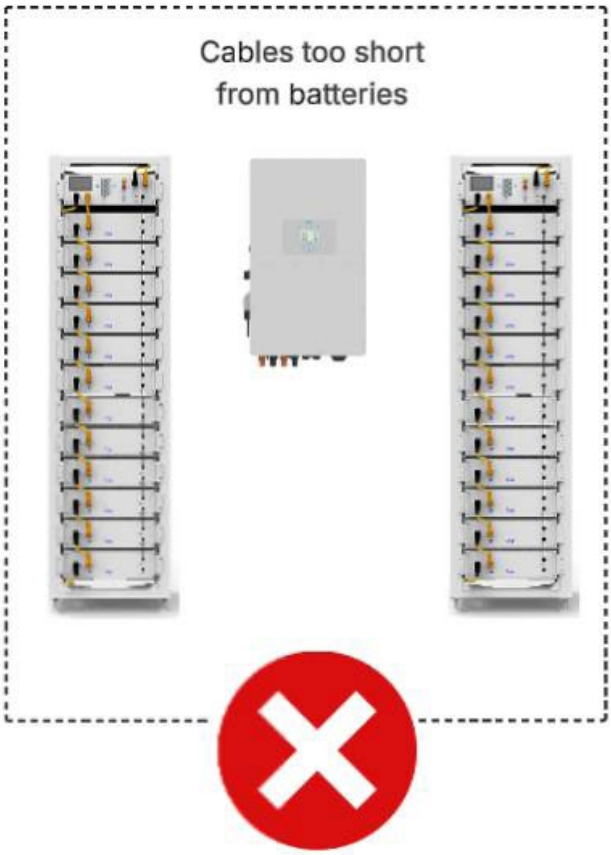


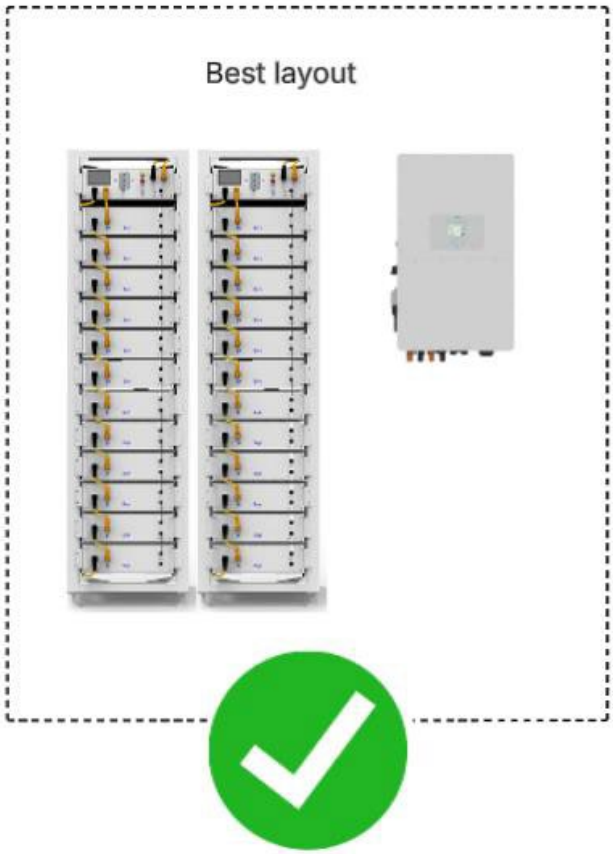
⑬	OUT COM	Connection position with next HVB-100A750V communication output
⑭	IN COM	Connection position with previous HVB-100A750V communication input
⑮	PCS COM	BMS cable - connects to the Inverter BMS port

- Power cables connect to Inverter battery terminals (Lug connectors provided with inverter).
- 2 x MAX-I battery stacks can connect in parallel directly to the inverter, any more require the Deye combiner box.

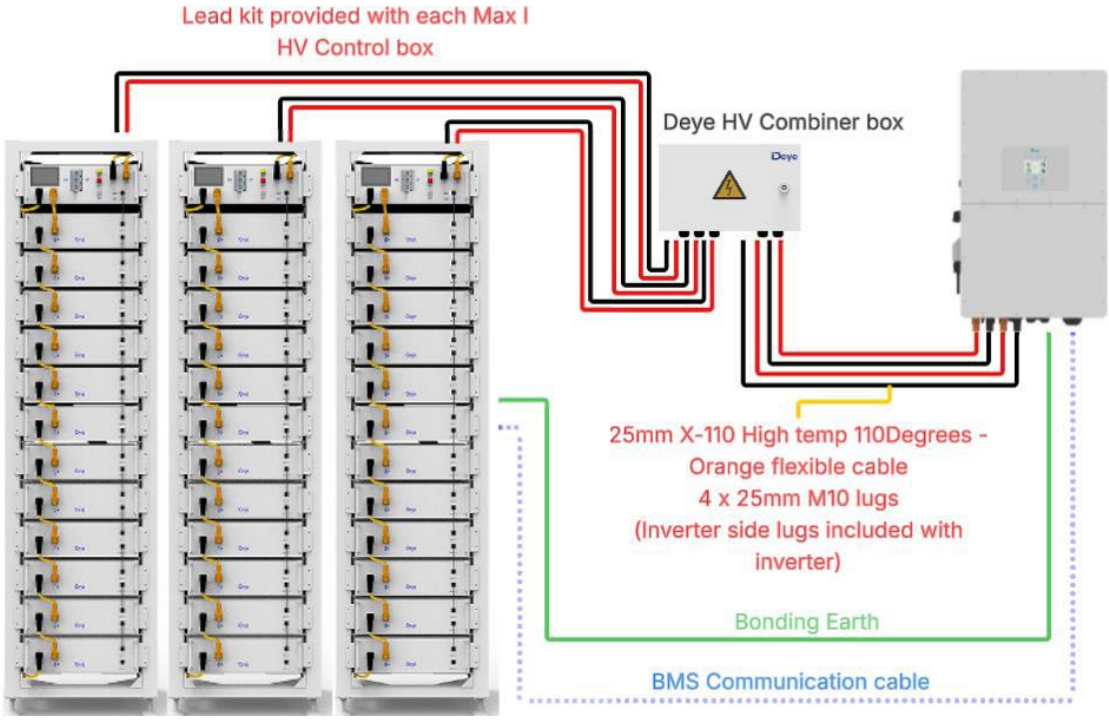
Install Configuration

Single or Dual SkyBox MAX I setup





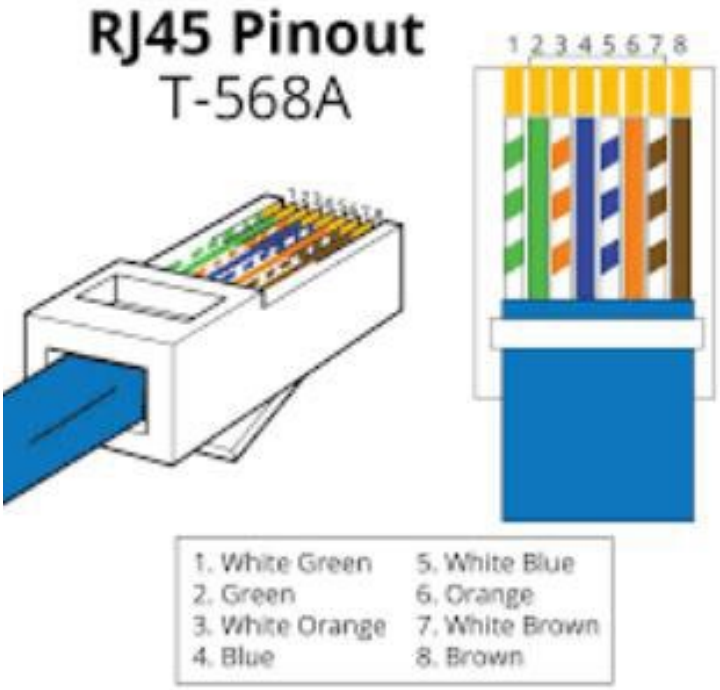
3 x MAX-I + Combiner box setup



BMS Cable Connection

A BMS cable is provided with the MAX-I battery, but if required you can make up your own BMS cable with the following guide.

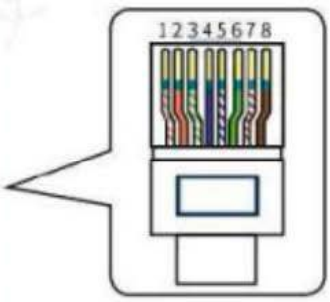
HV control box side – Standard type A pinout – Connects to PCS port.



Inverter side - (For Deye 29 – 50kW Inverters) - Connects to BMS 1 port

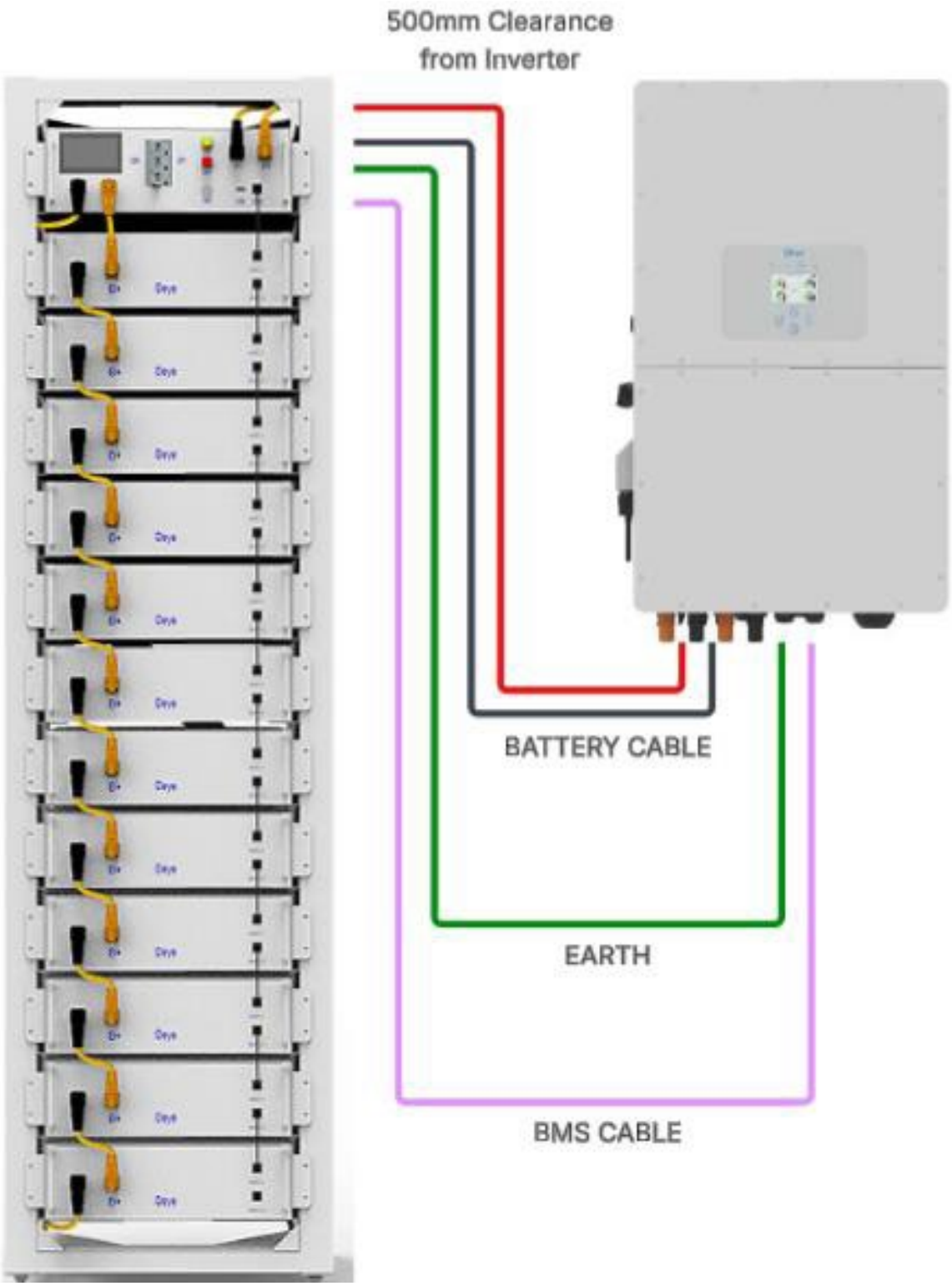
Connect ONLY pins 4 and 5 to avoid cross communication

No.	Color	BMS1	BMS2	Meter	RS485	DRM
1	Orange&White	485_B	485_B	485_B	485_B	DRM1/5
2	Orange	485_A	485_A	485_A	485_A	DRM2/6
3	Green&White	GND_485	GND_485	GND_COM	GND_485	DRM3/7
4	Blue	CAN-H1	CAN-H2	485_B	—	DRM4/8
5	Blue&White	CAN-L1	CAN-L2	485_A	—	REF-GEN/0
6	Green	GND_485	GND_485	GND_COM	GND_485	GND_LCD
7	Brown&White	485_A	485_A	—	485_A	NetJ1_7
8	Brown	485_B	485_B	—	485_B	NetJ1_7



Wiring Overview

- The battery isolator is inbuilt to the HV control box on the battery stack; no additional isolator is required between the batteries and Inverter.
- Battery leads are provided with the HV control box to connect from HV control module to the Inverter.



Battery Commissoning

First time start up procedure

1. Turn on the Battery breaker on the HV control box.
2. Press the START switch.
3. RED light will come one, wait until the touch screen lights up.
4. Touch the screen to enter settings menu.
5. Press the symbol top right of screen and enter password – 1 2 3 – Enter.
6. Bottom left of screen press “BMU Number”.
7. Now enter the number of battery modules in stack EVEN if it is already correct.
8. Now wait about 15 seconds until the YELLOW light comes on.
9. Press the START switch to shut down and turn of the battery breaker.
10. Wait 10 seconds before starting again.
11. Once started the HV module should come on and go to YELLOW light (Normal operation).
12. Enter the settings menu again and check there are no errors.
13. Should see battery stack voltage and SoC displayed on home screen.

Multiple MAX-I stacks

- Follow above procedure but do every stack one at a time with the other stacks OFF.
- Then turn on all stacks starting with the master.

Start Up / Shutdown Procedure

Do not switch off battery system under load, shut down inverter first.

Start up

1. Turn ON battery breaker
2. Press START button

Shut down

1. Press START button
2. Turn OFF battery breaker

Inverter Commissioning

Start up system

1. Turn ON battery system.
2. Press the ON button on left side of inverter.
3. Turn ON PV array isolator (this can be done end of commissioning).

Settings

1. Press the cog wheel top right of the screen to enter the settings menu.
2. Some Inverters require installer code = 7777 Enter when prompted.
3. Advanced Function: Lock out all changes = Untick (code 7777).
4. Disable DRM – Press tick bottom right of the screen to save.

Basic Settings

Set Time and Date of site - Press the tick bottom right of the screen to save.

Battery Settings Page 1

1. Battery mode = Lithium Active battery = Yes.
2. Parallel battery = Yes ONLY IF 2 or more MAX-I is connected to Inverter.
3. Batt capacity = 100Ah (per MAX-I stack).
4. Max charge = 50A (These settings will max out depending on inverter size).
5. Max discharge = 50A (These settings will max out depending on inverter size) Press tick bottom right of the screen to save.

Battery Settings Page 3

1. Lithium mode 00 Shutdown = 10%
2. Low Batt = 15%
3. Restart = 15%
4. Press tick bottom right of the screen to save.

Grid Settings

1. Grid mode = typically Australia A (State/DNSP dependent) Installer code 7777.
2. Press tick bottom right of the screen to save.

System work mode page 1

1. "Zero export to CT" (on grid) This is important, it makes sure power is fed to line and load side. Or "zero export to load" - This is for off grid (Inverter becomes the meter).
2. Tick 'Solar sell" next to "Zero export to CT" to enable export.
3. Set "Max sell power" to export limit.
4. Energy pattern = Batt first Press tick bottom right of the screen to save.

System work mode page 2

Tick "Time of use" up the top Set "Batt %" to the minimum for batteries to discharge too in all time periods (typically 20%). Press tick bottom right of the screen to save.

Off-grid

Use these settings for a generator:

Gen port use

1. Select "Generator input" Set "Rated power" to the maximum output of the Generator – E.G: (60kVa generator) x (power factor 0.8) = 48kW
2. This will be the maximum power drawn from the generator to cover loads AND charge batteries.

Battery Settings Page 2

1. Enable Gen charge if off grid (Gen charge + Gen signal)
2. Set battery % to start at (E.G - 20%)
3. A = Amps to charge batteries
4. this is DC not AC
   E.G: (Battery current – 50A) x (Battery voltage – 576VDC)) = 28.8kW drawn from generator.

System Check

1. Press the battery symbol on the inverter touchscreen.
   - Select Li-BMS at the bottom right of the screen.
   - It should display DEYE (or your battery type) to confirm battery communication.
2. If not, please check the battery comms wiring.
3. Press the solar panel symbol on the inverter touchscreen.
4. Check voltage and current of strings attached to Deye Inverter.
5. Look at the overview for solar generation, loads, and battery charge/discharge.
6. Check power flow is correct, if not check CT direction or try swapping.

Wi-Fi Connection and Support

Call your partner sales manager or our number for technical assistance or Wi-Fi connection support.

1300 787 488

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