# CSS – OD /
# Commercial Storage Solution for Installations with BUI100

## Quick Installation Guide

for Europe, APAC
and South Africa

# Legend and Safety Instructions

## Legend

**WARNING!** This symbol denotes a hazard. It calls attention to a procedure that if not correctly performed or adhered to could result in injury or loss of life. Do not proceed beyond a warning note until the indicated conditions are fully understood and met.

**CAUTION!** Denotes a hazard. It calls attention to a procedure that, if not correctly performed or adhered to, could result in damage or destruction of the product. Do not proceed beyond a caution sign until the indicated conditions are fully understood and met.

## Safety Instructions

**WARNING: RISK OF ELECTRIC SHOCK**
DO NOT touch the wires, contacts, terminals, or any conductors connected to the grid circuit inside the equipment.
Failure to follow safety instructions could result in severe injury or death from electric shock.

**WARNING: LETHAL HIGH VOLTAGES exist inside the product.**

- Note and abide by all warning signs on the product.
- Observe the safety precautions listed in this manual and other related documents.

**WARNING: Damaged Equipment Hazards**

- Damaged equipment or system failure may cause electric shock or fire!
- Perform an initial visual inspection of the equipment for damage or other hazards before operation.
- Check whether other external devices or circuit connections are secure.
- Confirm that this equipment is in a safe state before operating it.

**WARNING:** This equipment must be installed by **licensed electrician** and qualified personnel only. The installation and wiring of this equipment must comply with all applicable national, state/provincial, local electrical codes and standards. Attempting installation by unqualified individuals could result in unsafe operation, code violations, personal injury/loss of life, or damage to the equipment.

**WARNING: Battery Protection**
DC HIGH VOLTAGE! ELECTRIC SHOCK HAZARD!
The battery in the system generates a high voltage when connected. Accidental contact can result in electric shock or life-threatening injuries.

**WARNING: Ground Fault Protection**

- When a ground fault occurs in the integrated PCS, there may be fatal high voltage in parts that are not originally charged. DANGEROUS IF ACCIDENTALLY TOUCHED!
- Before operation, ensure there is no ground fault in the system, and take relevant protective measures.

**WARNING: Live Line Measurement**

- There are high voltages in the equipment in the integrated PCS, and accidental touch may cause fatal electric shock hazards.
- During live measurement, take appropriate protection, such as wearing insulating gloves.
- There must be an accompanying person to ensure personal safety.

**WARNING: Improper parameter settings**

- Improper parameter settings may affect the normal function realization of internal devices.
- Only authorized professionals can set the parameters.

**WARNING: Regulatory Compliance**
The installation and various operations of the integrated PCS must comply with the relevant standards and regulations of the country/region where the project is located

# Tools and Materials

## Work Clothes

Safety Robber Shoes

Helmet

Robber Gloves

Safety Clothing

Goggles

WARNING! Use only insulated and protected tools.

## Battery Cabinet 102.4 kWh & Battery Inverter 50 kW

Torque wrench with 7mm, 10mm, 17mm, 18mm, 19mm sockets

Wire Cutter

Crimping tool

Phillips screwdriver ⌀6 mm, L= 230 mm

Heat gun


Multimeter

Cable Stripper

Wire Stripper

Drill

Box Cutter

Pipe Cutter

## Commercial Backup Interface 100 kW

Ladder

Hammer

Flat Head Screwdriver

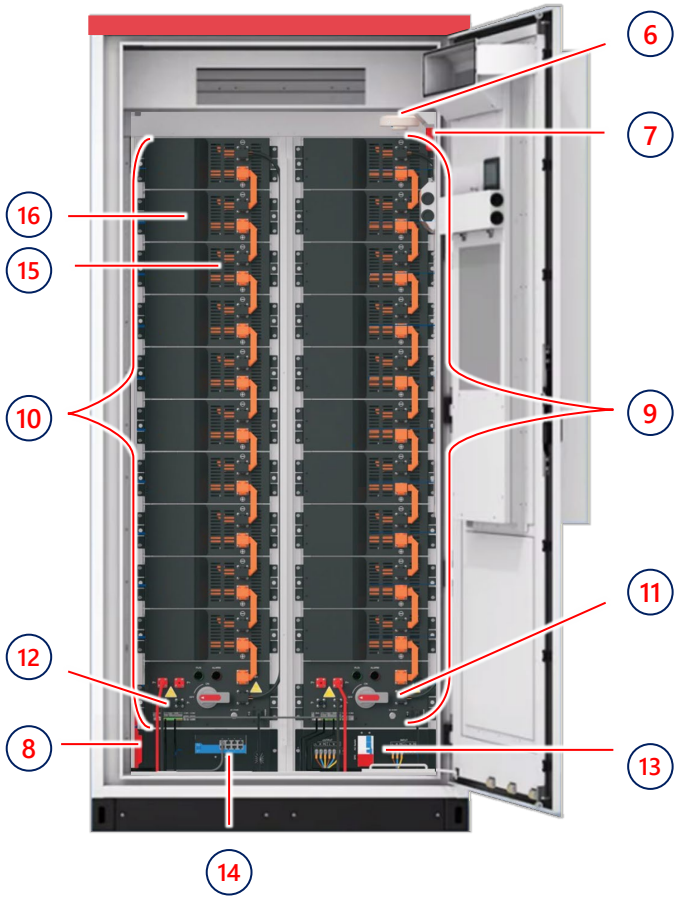
Flat Head Screwdriver for Terminal Block Screws

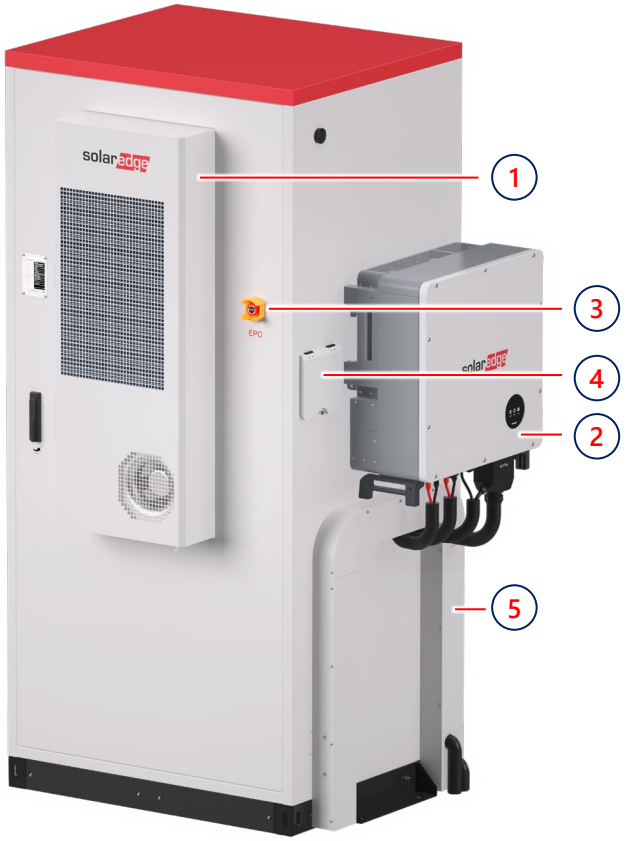
Torque wrench with M4, M6, M10, M12 sockets

Adjustable Wrench

Open-end torque wrench

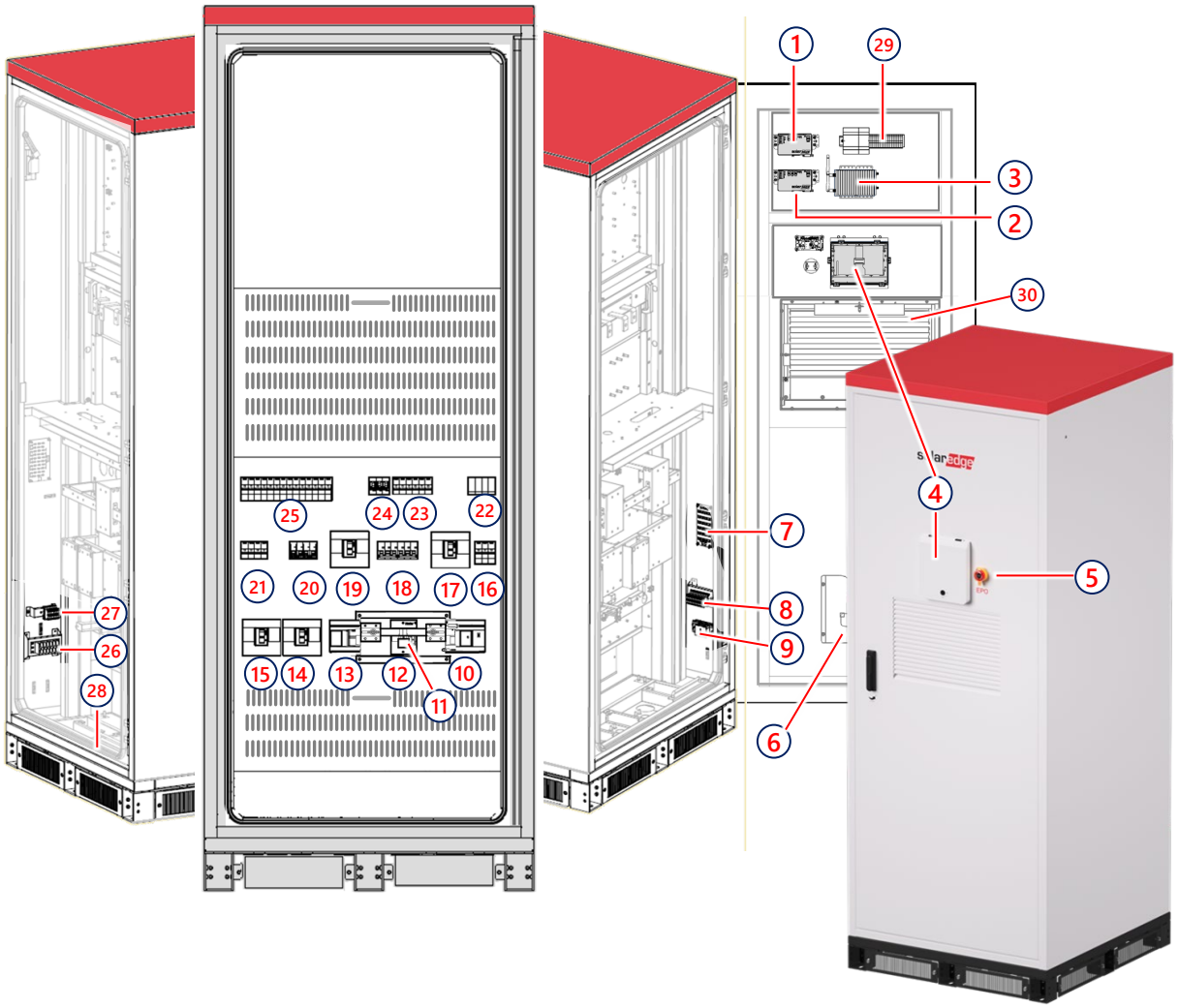
# General Description of Battery Cabinet & Battery Inverter




1. Battery Cabinet HVAC
2. Battery Inverter 50 kW
3. Emergency Power Off (EPO) switch
4. CSS Local Interface
5. Wiring Duct
6. Photoelectric Smoke Detector
7. Aerosol Fire Extinguisher 1
8. Aerosol Fire Extinguisher 2
9. Cluster 1 (10 EMs + CMU1)
10. Cluster 2 (10 EMs + CMU2)
11. Cluster Management Unit 1
12. Cluster Management Unit 2
13. AC Interface Box
14. Battery Cabinet Management Unit
15. Energy Module (x20)
16. Energy Module Management Unit

# General Description of Commercial Backup Interface (BUI100)

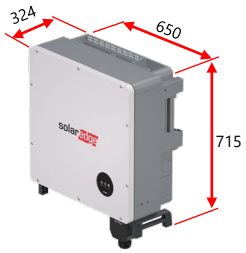



1. Diesel Generator Energy Meter
2. Grid Energy Meter
3. SolarEdge ONE Controller
4. CSS Local Interface
5. Emergency Power Off (EPO) switch
6. Technical Documentation Folder
7. X04: Battery Inverter comm. interface
8. XT3: Terminal Board
9. BUI Ethernet I/O
10. QBP.GRID: Grid Bypass MCCB
11. Mechanical Interlock between QLOAD, QBPGRID and QBPDG
12. QLOAD: Combined PV & LOAD input MCCB
13. QBP.DG: Diesel Generator Bypass MCCB
14. QPCS2: Battery inverter 2 Input MCCB
15. QPCS1: Battery inverter 1 Input MCCB
16. F13: Surge Protection Device Fuse
17. QGRID: Grid input MCCB
18. QDG.APS and QGRID.APS:
    230VAC auxiliary power supply MCBs from DG & GRID
19. QDG: Diesel Generator Input MCCB
20. QAC1 & QAC2: A/C (HVAC) supply MCBs to PCS1 & PCS2
21. F10: FAN1 & FAN2 of power transformer compartment fuse
    F11: Control power fuse of DG contactor K2
    F12: Control power fuse of GRID contactor K1
22. Replaceable AC SPD (per phase)
23. F7: 500V DC auxiliary power supply (from PCS) fuse
    F8: 230VAC auxiliary power supply from DG fuse
    F9: 230VAC auxiliary power supply from GRID fuse
24. QDC.APS: 500V DC auxiliary power supply (from PCS) MCB
25. F1: Battery Inverter voltage sampling protection fuse
    F2: Neutral voltage sampling fuse
    F3: Inverter voltage sampling protection fuse
    F4: GRID/DG voltage sampling protection fuse
    F5: DG voltage sampling & DG meter protection fuse
26. XT1: AC Auxiliary terminal block
27. XT2: DC Auxiliary terminal block
28. PE wires connection bus
29. DIN rail for optional Isometer & Coupling Device
30. Air filter

## Battery Cabinet 102.4 kWh


1433 KG

## Battery Inverter 50 kW




73 KG

## Battery Inverter 50 kW Battery Cabinet 102.4 kWh

*Assembled Dimensions


1506 KG

## Commercial Backup Interface 100 kW

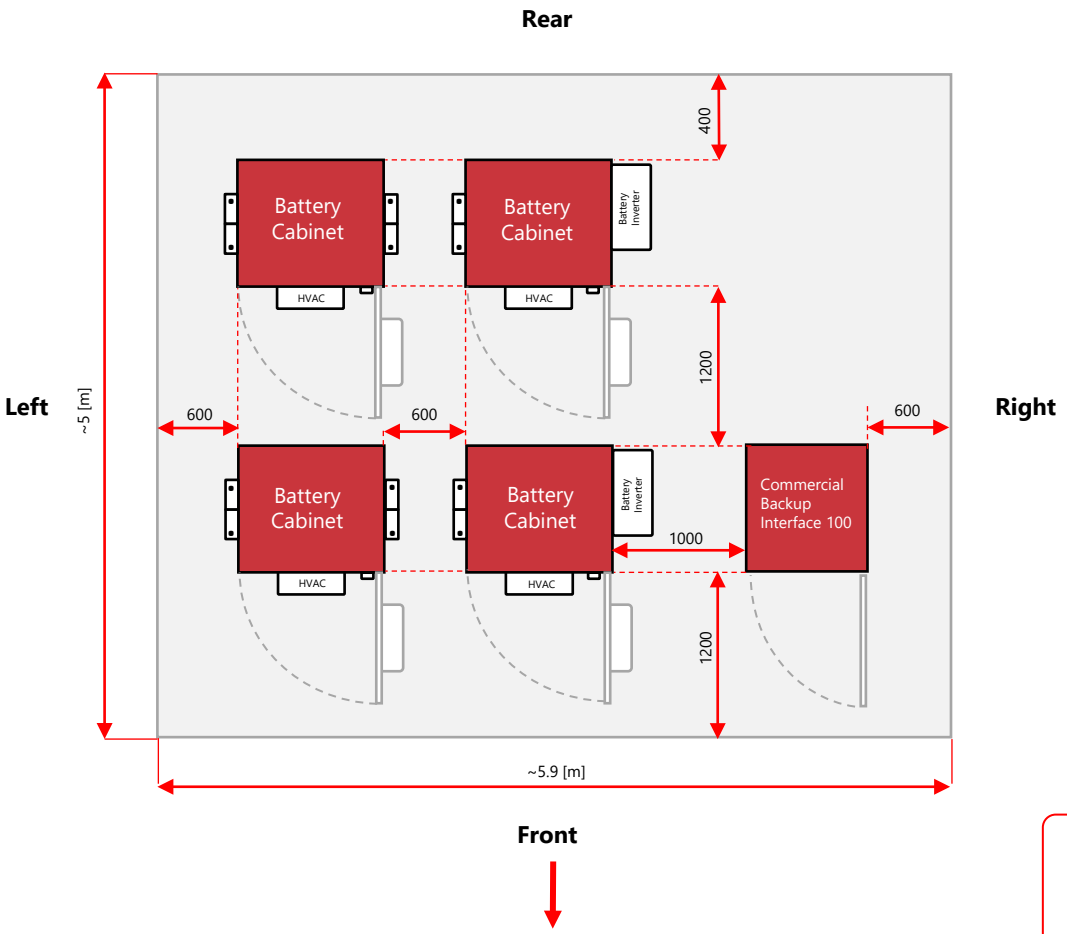

960 KG

All dimensions are in [mm]

# Site Layout 1-2

## Default Layout & Clearance Distances (Top View)

All dimensions are in [mm]



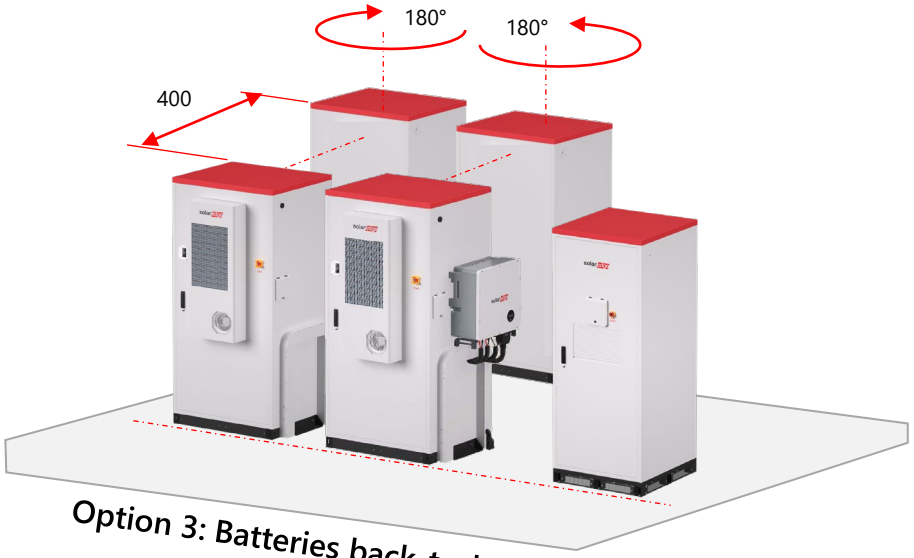

| Battery Cabinet + Battery Inverter | |
|---|---|
| **Direction** | **Distance [mm]** |
| Front | 1200 |
| Rear | 400 |
| Right | 1000 |
| Left | 600 |

| Standalone Battery Cabinet 102.4 kWh | |
|---|---|
| **Direction** | **Distance [mm]** |
| Front | 1200 |
| Rear | 400 |
| Right | 600 |
| Left | 600 |

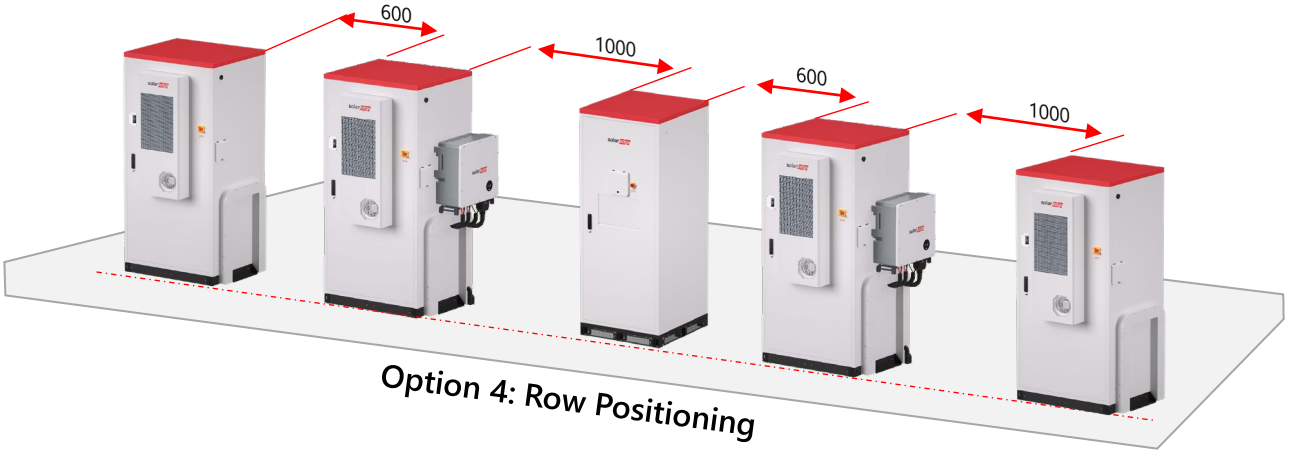
| Commercial Backup Interface 100 kW | |
|---|---|
| **Direction** | **Distance [mm]** |
| Front | 1200 |
| Rear | 1200 |
| Right | 600 |
| Left | 1000 |

**NOTE!**
Installers are hereby notified that local codes and regulations could extend the required clearances beyond what is specified in this manual.
Before proceeding with installation, consult with relevant authorities to ensure compliance with local regulations concerning clearance distances.


Option 2: BUI100 in the middle




Option 3: Batteries back-to-back




Option 4: Row Positioning

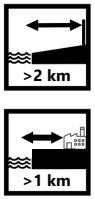
# Environmental Conditions & Requirements

**CAUTIONS and Requirements of Installation Environment**

- When the equipment is running, do not cover the vents or heat dissipation system to prevent fire due to high temperature.
- The equipment should be installed in an area away from liquids; it is forbidden to install it under water pipes, air outlets and other places that are prone to condensation, or under places that are prone to water leakage, such as air-conditioning outlets, vents, and outlet windows in the machine room, to prevent liquids from entering the inside of the equipment and causing malfunction or short circuit.
- If any liquid enters the equipment, please turn off the power immediately and notify the administrator.
- Do not place the equipment in an environment with flammable or explosive gas or smoke, and do not perform any operations in such environment.
- The equipment should be installed away from desert or sandy environment.

**CAUTION!** For indoor installations ventilated room is required

**CAUTION!**
CSS – OD solution must be installed:>2km from the sea when installed in outdoor location or >1km when installed in indoor locations.

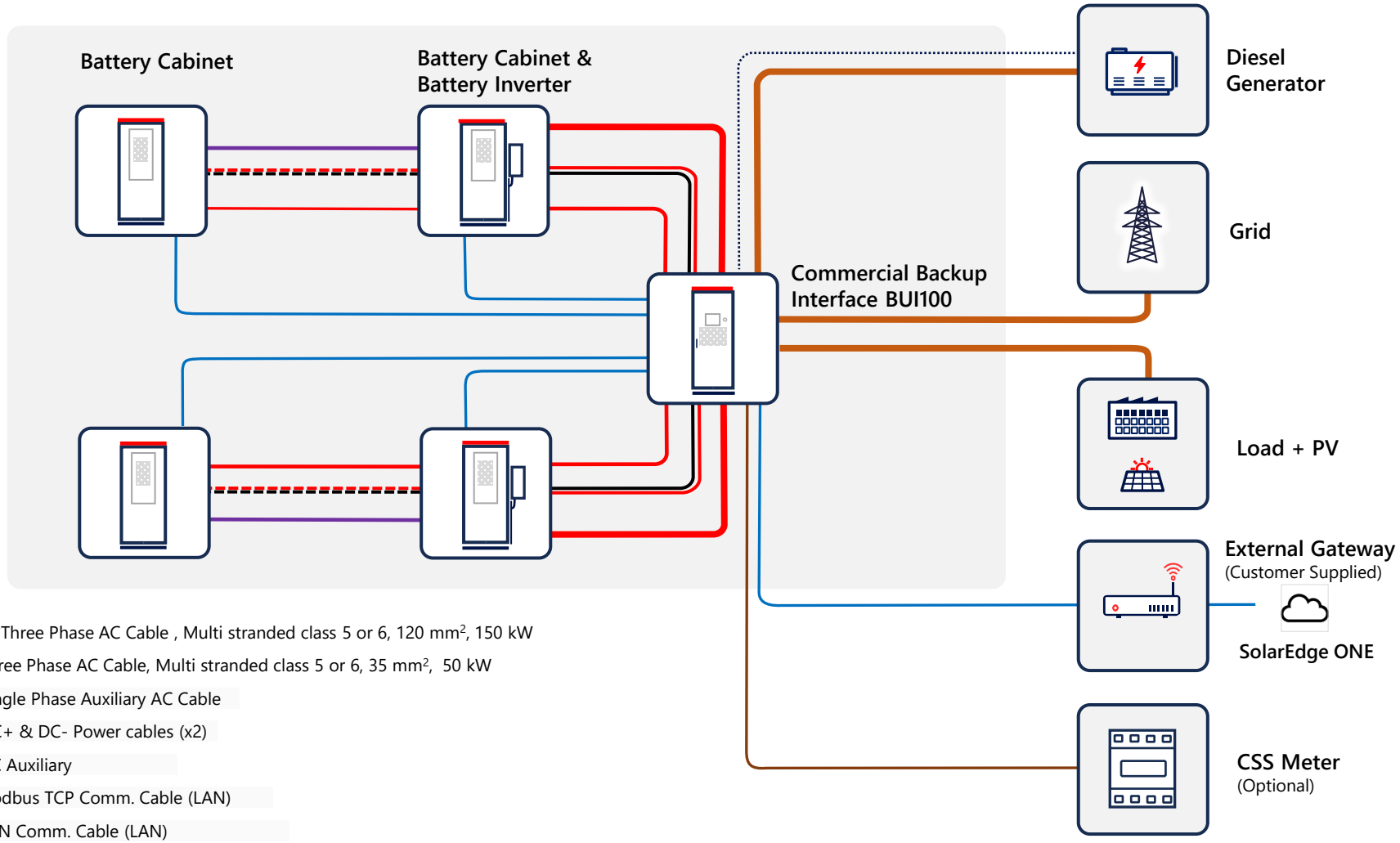



**CAUTION!** When Installed in indoor locations consider heat dissipation values of all installed devices when choosing appropriate room / space for their installation

**NOTE!** Battery Cabinet & Battery Inverter max noise is >65 dBA, 1 meter distance

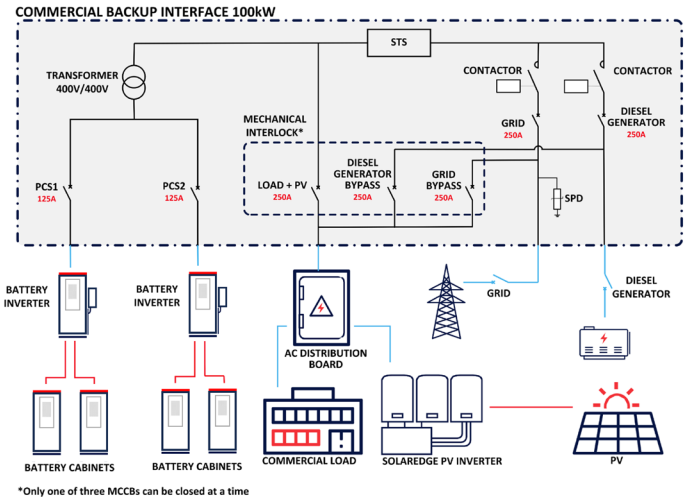
| Battery Cabinet | |
|---|---|
| **Max Power** | **Heat Dissipated** |
| 50KW | 0.87 KW·h<br>2970 BTU |
| **Battery Inverter** | |
| **Max Power** | **Heat Dissipated** |
| 50KW | 1.5K W·h<br>5118 BTU |
| **BUI00** | |
| **Max Power** | **Heat Dissipated** |
| 100KW | 3.35 KW·h<br>11430 BTU |

# Site Power & Communication Layout

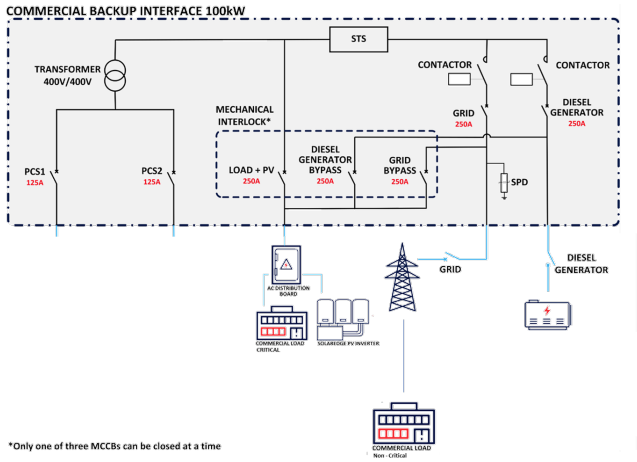


# Supported Site Configurations

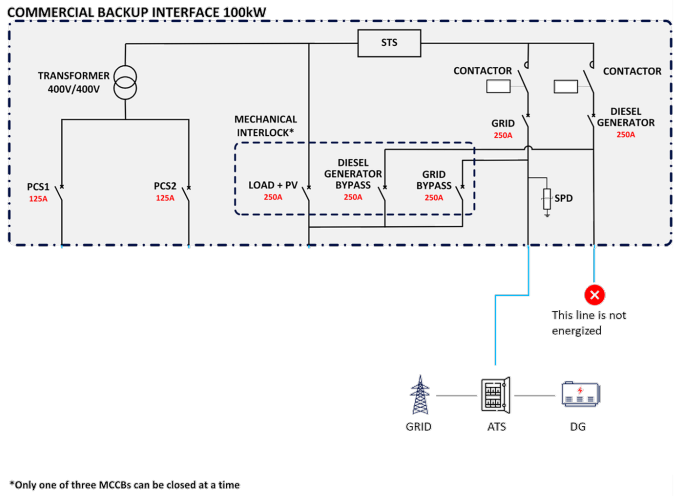
## Configuration 1 - Fully Backed-up site (Pages 28-29)



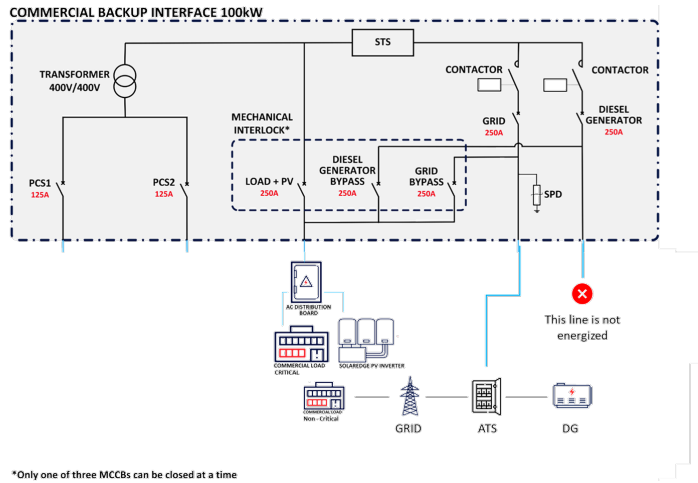

## Configuration 2 - Partially Backed-up site – (Pages 31 – 32)




## Configuration 3 - Fully Backed-up site with 3rd party ATS Gear (Page 34)

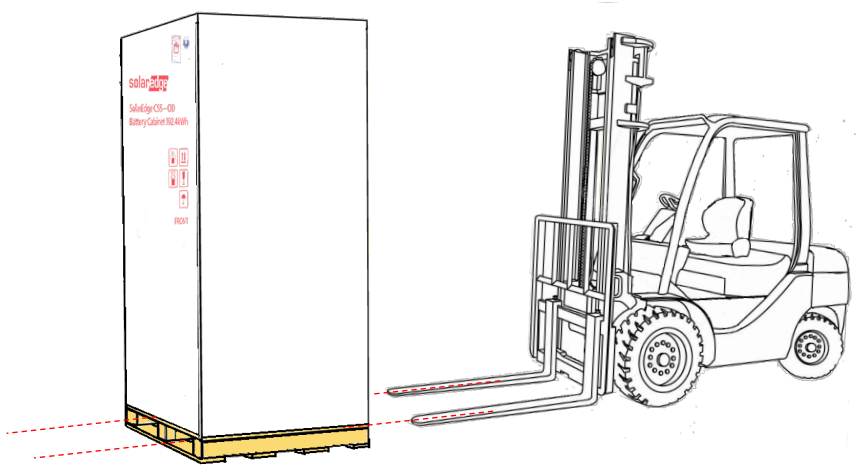



## Configuration 4 - Partially Backed-up site with 3rd party ATS Gear (Pages 35)



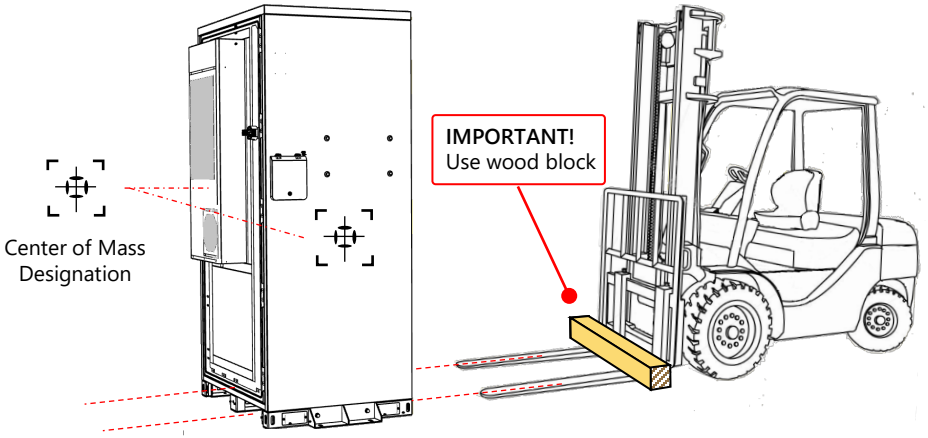
# Battery Cabinet – Forklift Transportation Guidelines

## Transporting Battery Cabinet with the wooden box

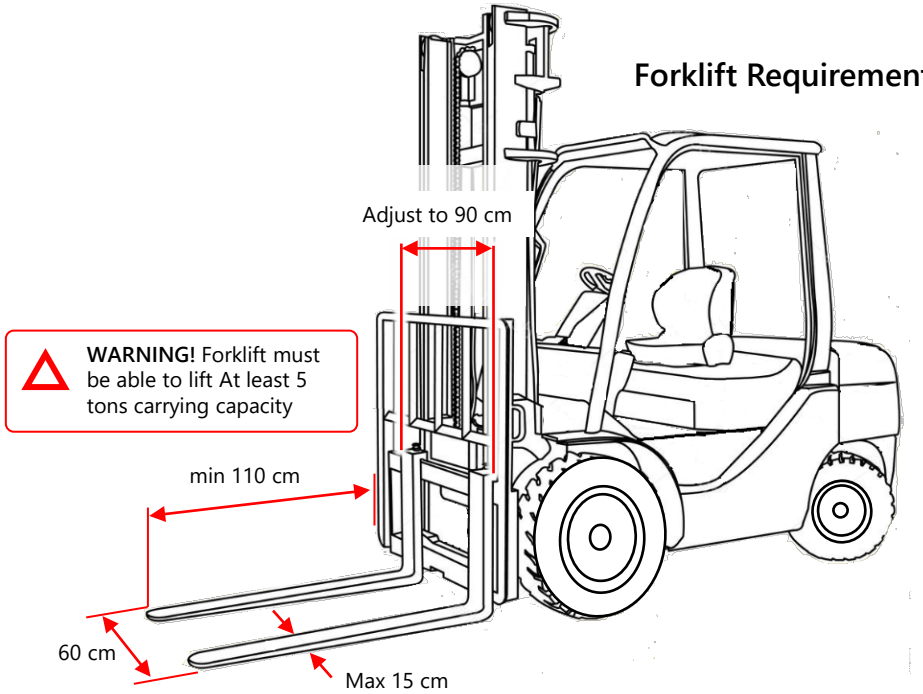


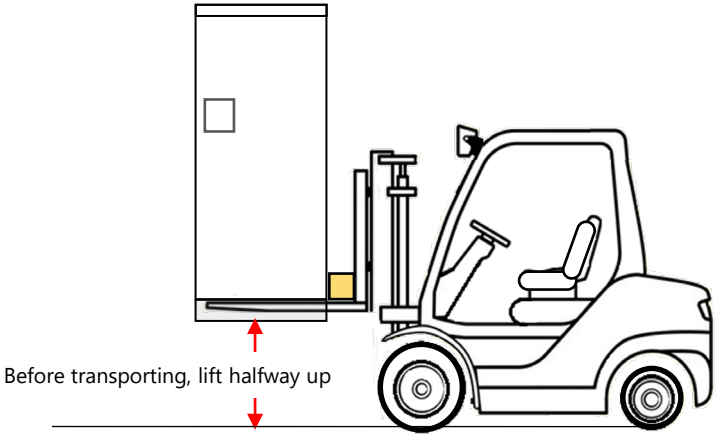
Floor Pallet

## Transporting Battery Cabinet Standalone



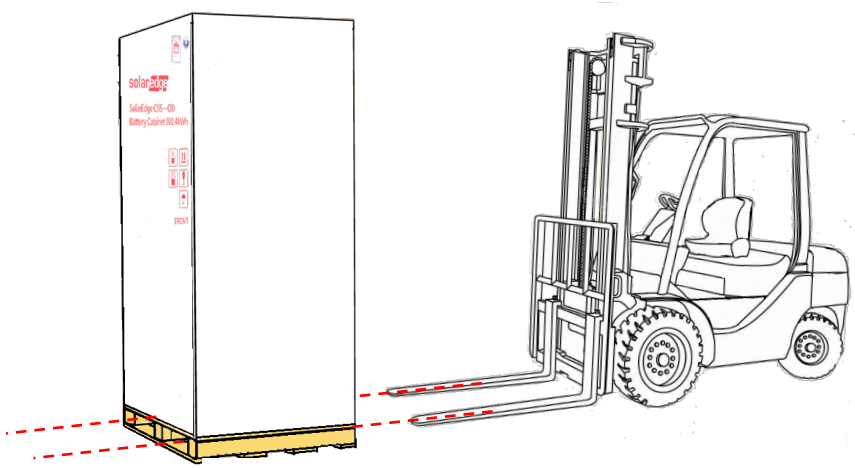

## Forklift Requirements



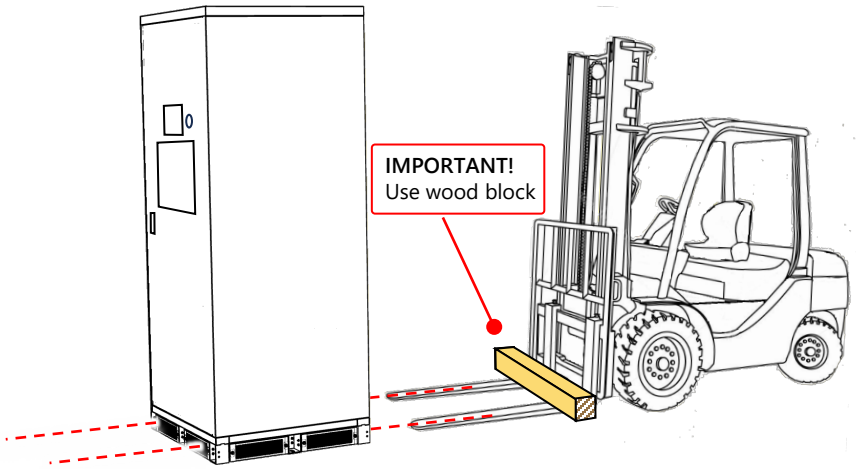



# BUI100 – Forklift Transportation Guidelines

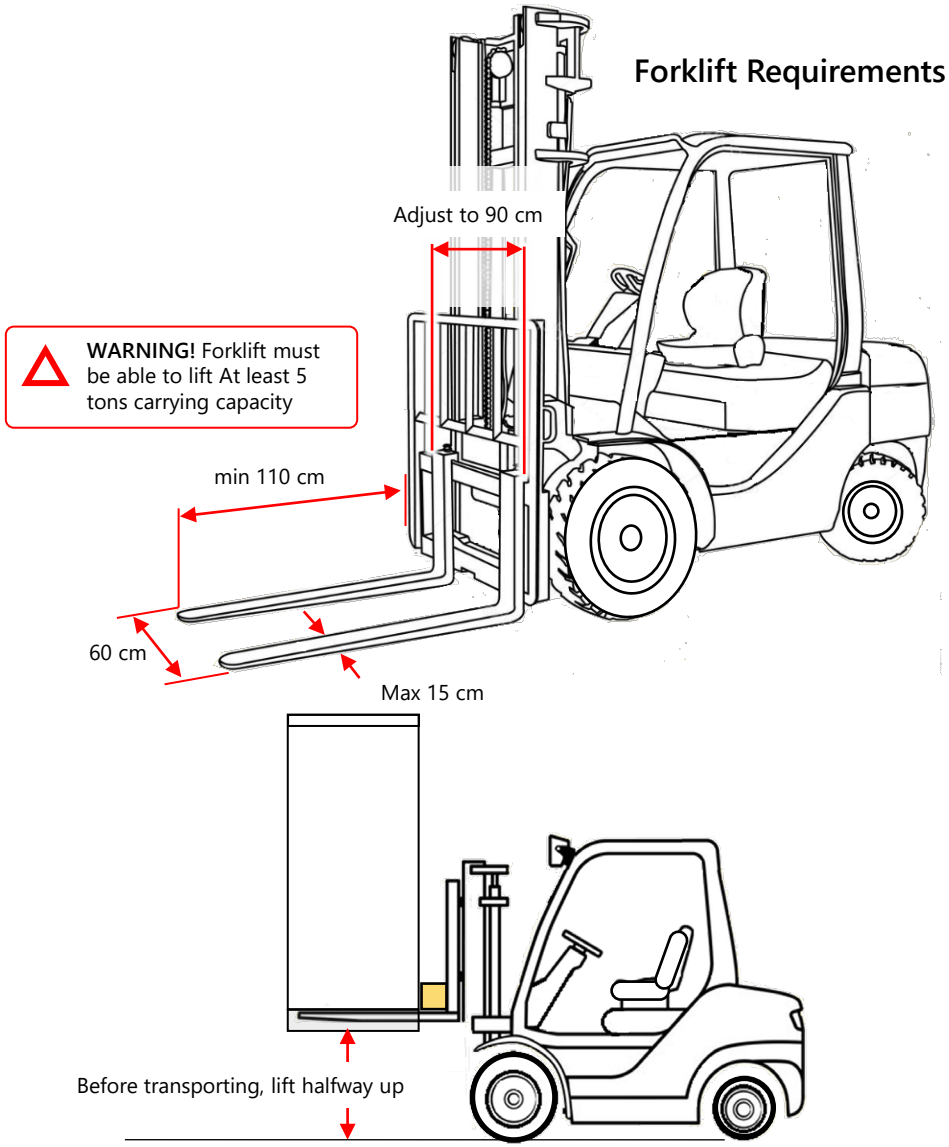
## Transporting BUI100 inside wooden box




## Transporting BUI100 Standalone




## Forklift Requirements



# Cabinets Transportation – Crane lifting Guidelines

# Unpacking Commercial Backup Interface 100

**NOTE!** Disassembly of wooden box must start from the top side

1 Top

3 Left

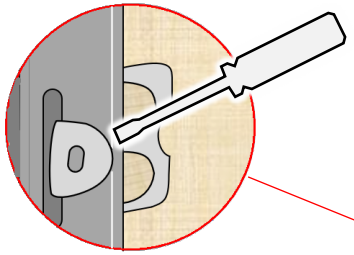
5 Rear

6

4 Right

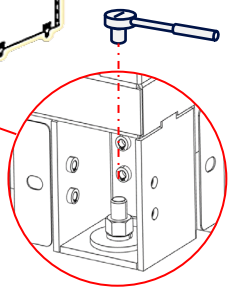
2 Front

**NOTE:** Use flat head screwdriver to unfold the connecting buckles

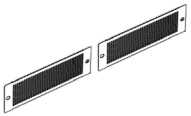


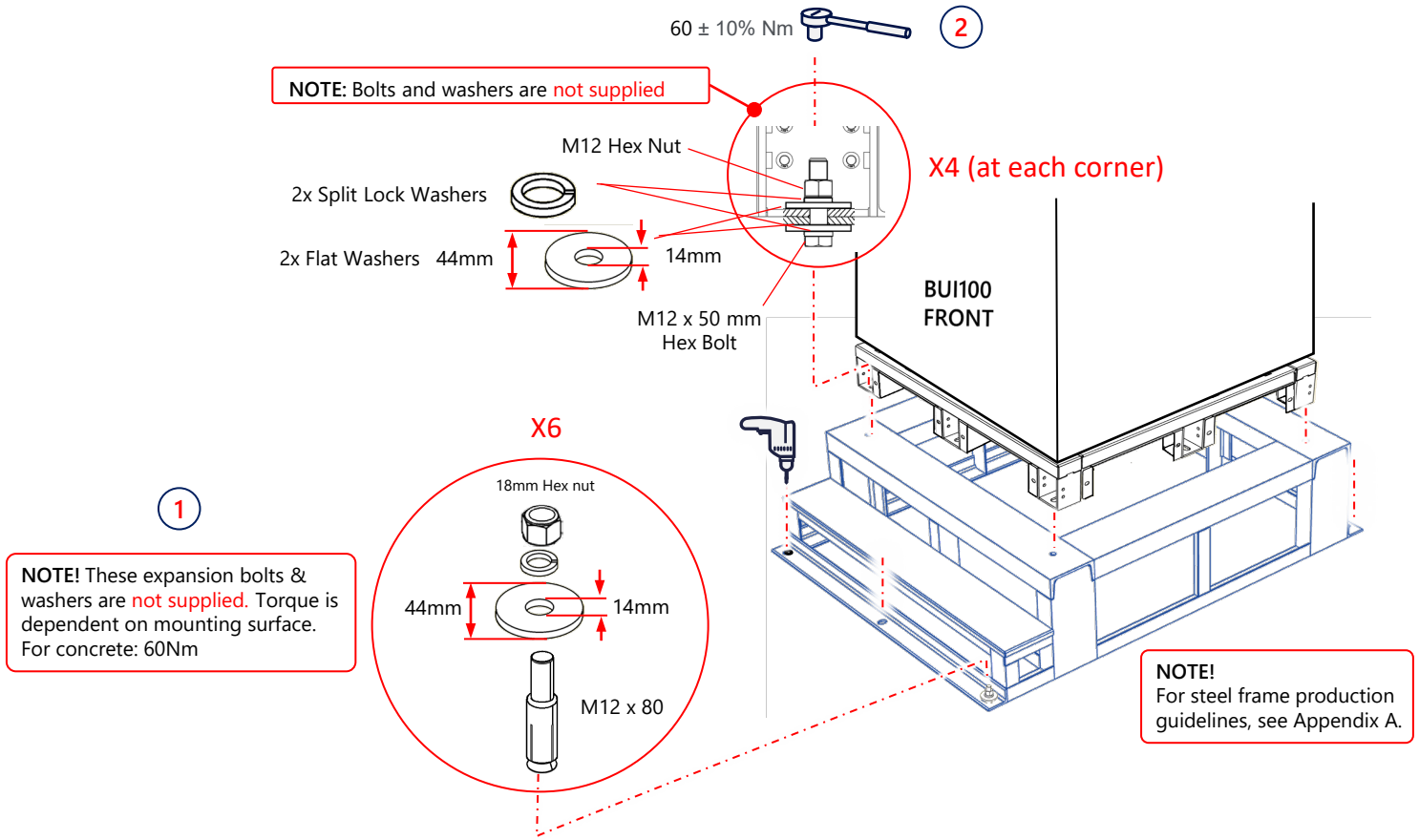
7 Remove foam film & Protection foams

8 Remove M12 nuts using 19 mm socket (x4) (on each corner)



**NOTE:** Forklift Slot Covers (x2) are supplied inside the package. Keep the Slot Covers for closing BUI bottom openings once positioned in the final location.

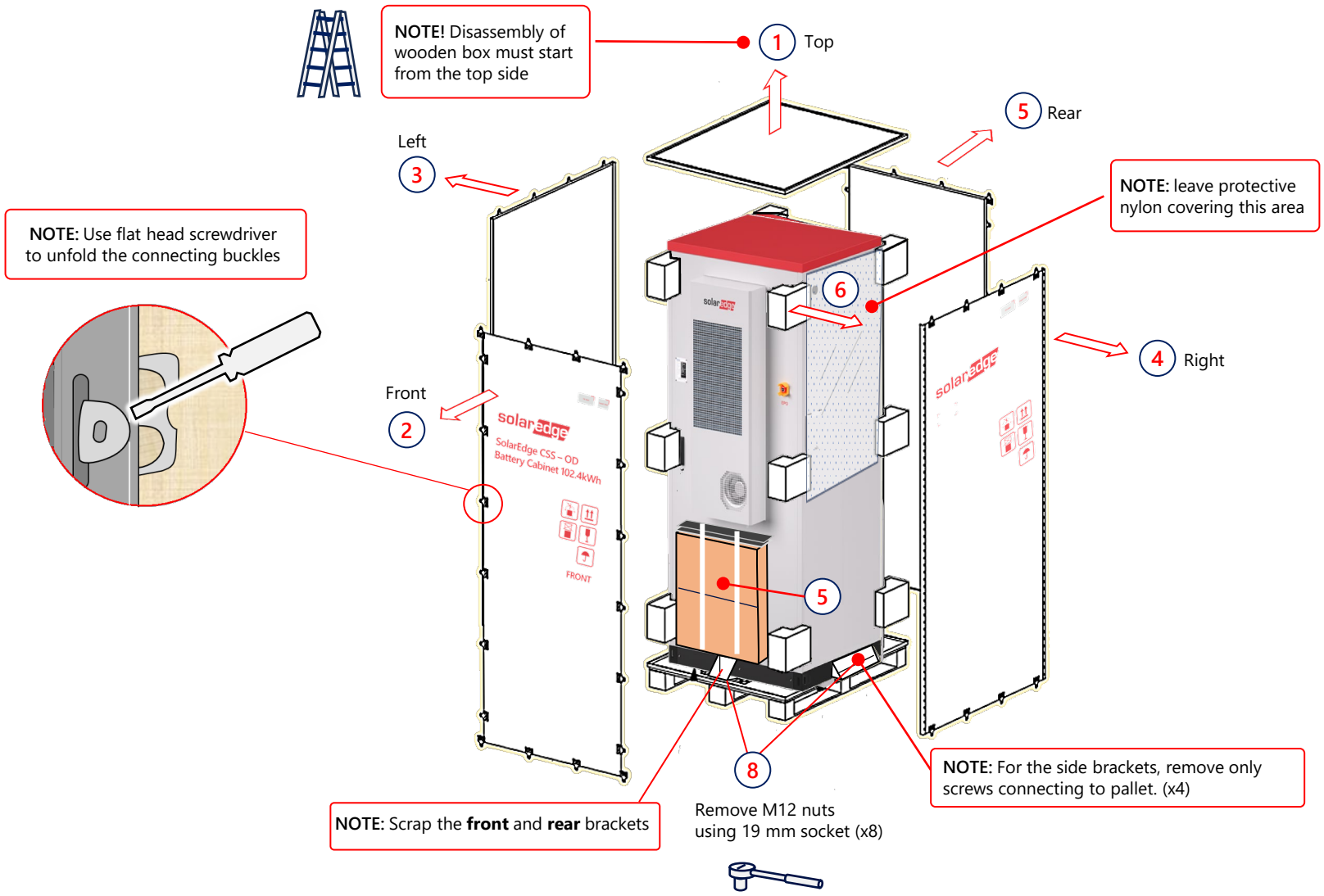




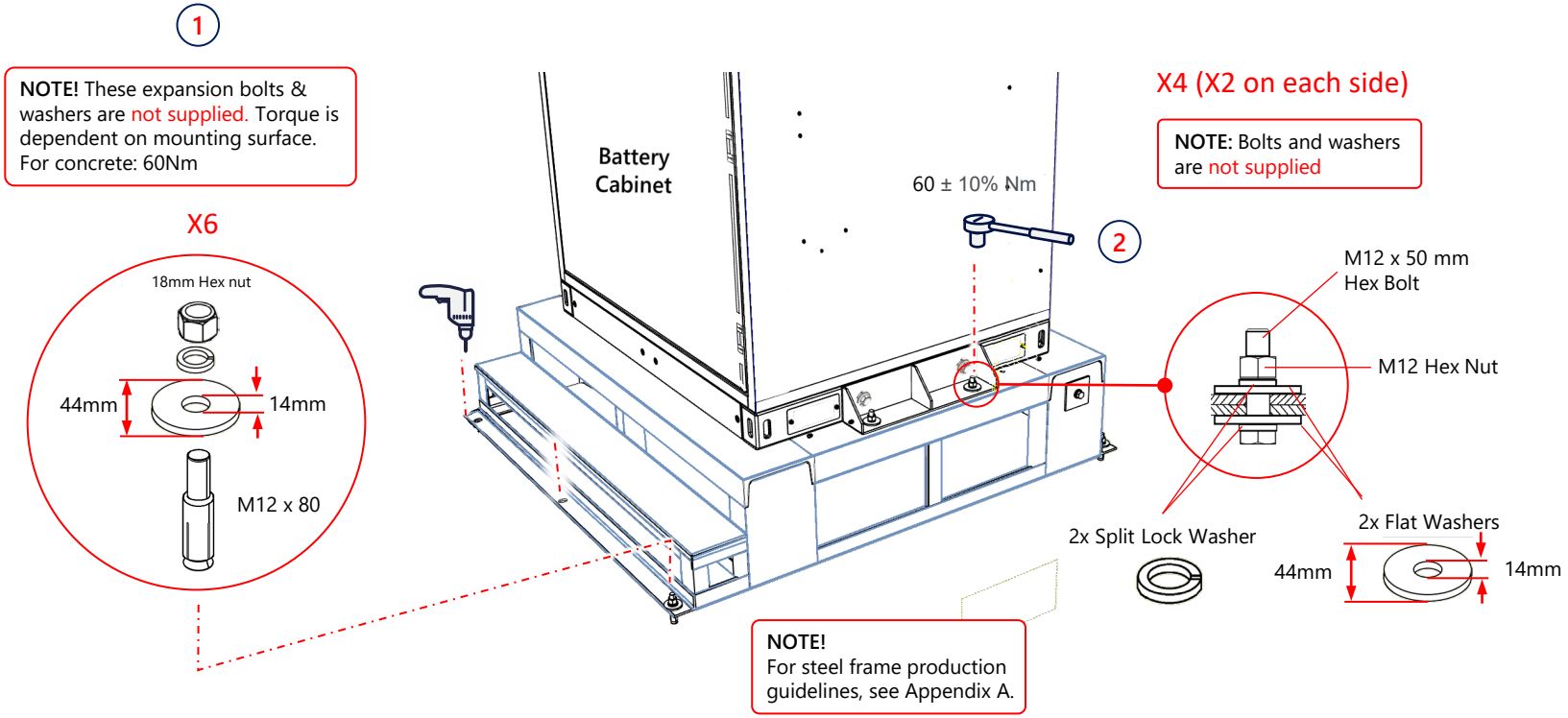

**IMPORTANT!**

1. Open Steel Frame must be provided by the customer.
2. General Dimensions & Requirements of the steel frame are provided in Appendix A.
3. Customer's civil engineer shall review and approve the customers provided structure (open steel frame).

# Unpacking Battery Cabinets



# Mounting Battery Cabinet on Steel Frame



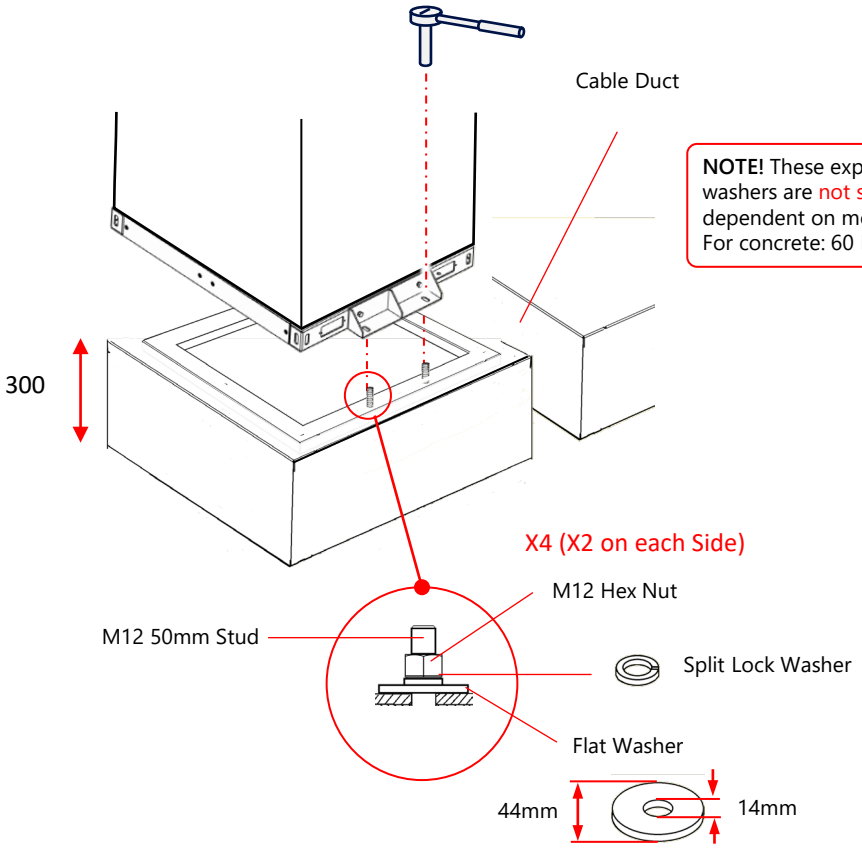

**IMPORTANT!**

1. Open Steel Frame must be provided by the customer.
2. General Dimensions & Requirements of the steel frame are provided in Appendix A.
3. Customer's civil engineer shall review and approve the customer's provided structure (open steel frame).

# Mounting Battery Cabinet Directly on Concrete Pad

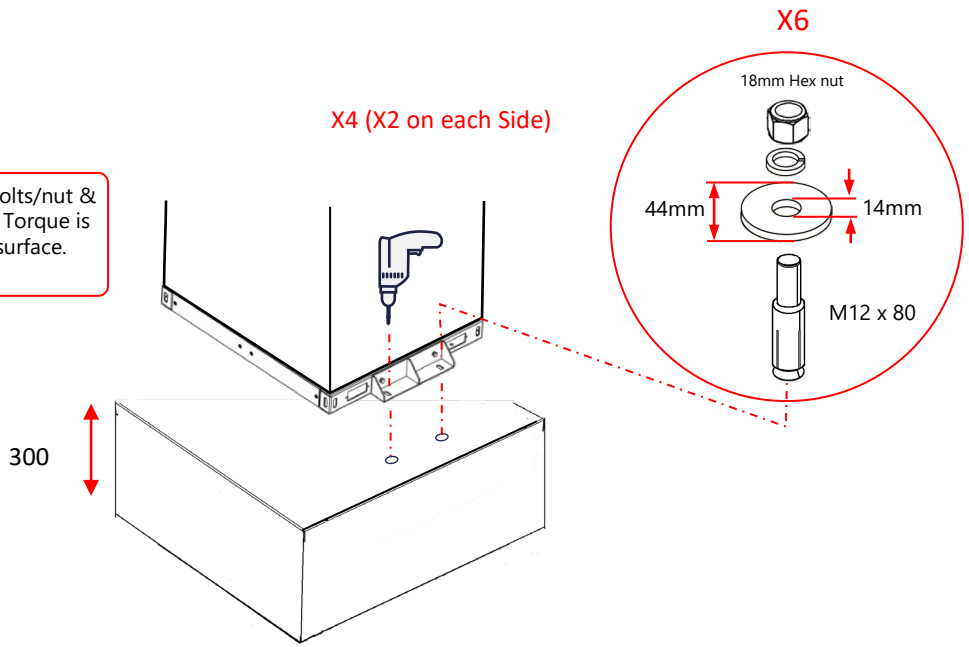
**NOTE!** Concrete pad guidelines are in Appendix A

## Option 1: Concrete Pad with pre-integrated studs




**NOTE!** These expansion bolts/nut & washers are not supplied. Torque is dependent on mounting surface. For concrete: 60 Nm

## Option 2: Concrete Pad & Drilling occurs on site

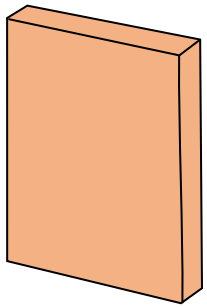



All dimensions are in [mm]

# Battery Cabinet Package Contents (Inside Accessories Box)

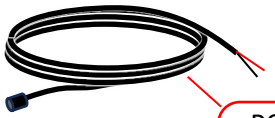
Battery Cabinet (Cluster 1)
to Battery Inverter DC Cables (3m) (A)


Battery Cabinet (Cluster 2)
to Battery Inverter DC Cables (3.5m) (B)

PAY ATTENTION!
All Cables are marked with a designation label

Battery Cabinet to
Battery Inverter
CAN cables (3.5m) (C)




Battery Cabinet to Battery
Inverter RS485 cable (3.5m)

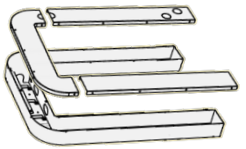
THIS PROVIDED CABLE SHOULD NOT BE USED

PE cable (0.7m) (E)

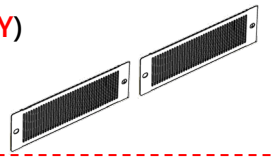
Battery Cabinet to BUI100
AC Auxiliary Cable (10m) (D)

Battery Cabinet to BUI100
Modbus TCP Cable (10m) (F)

Battery Cabinet
Wiring Duct (G)

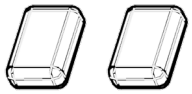


Forklift Slots Covers (x4) (Y)
(Outside Accessories Box)



## Battery Cabinet Package Contents (Inside Battery Cabinet)

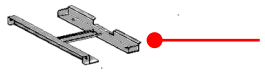
Fire Clay (x2) (H)



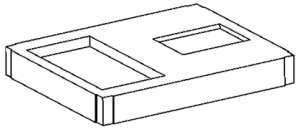
Corrugated Plastic Tube ∅ 34.5 mm (I)

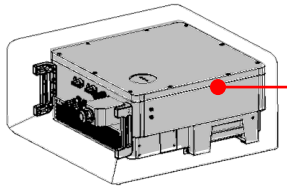
Corrugated Plastic Tube ∅ 21 mm (J)

# Battery Inverter Package Contents



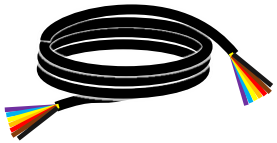
Battery Inverter
Mounting Bracket (K)

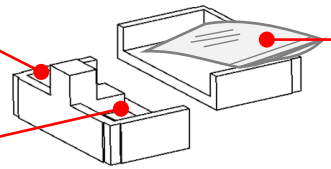




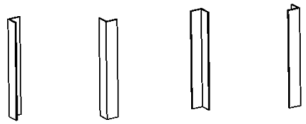
Battery Inverter

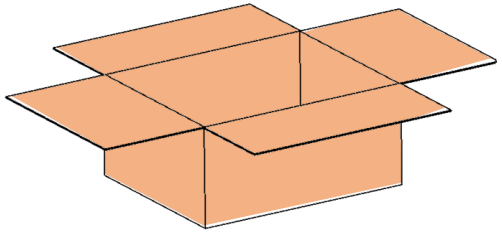
Battery inverter to BUI100
Parameters Communication
Cable (10m) (L)





Battery Inverter to BUI100 DC
Auxiliary Cable (10m) (M)

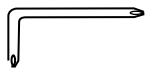




DC-Bus
Connector (N)

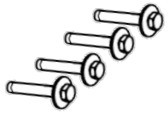
Communication Cable
Connector (O)

Right-angled
Phillips
screwdriver (P)



Bracket
Mounting
Screws (x4) (Q)

17mm x 30

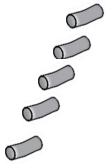


Bracket Lock
Screws (x2)(R)

10mm x 16

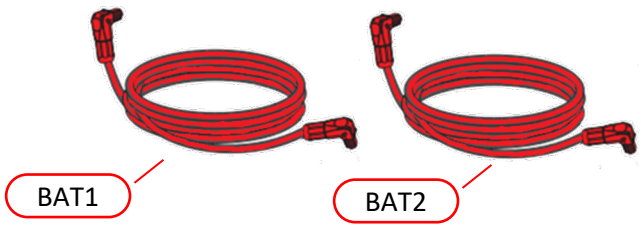
M6 Lugs
(x5) (S)

Cables Shrinks
(x5) (T)



## Cabling Extension Kit box*

Cluster to Cluster Paralleling
DC+ Cables (x2) (5m) (U)

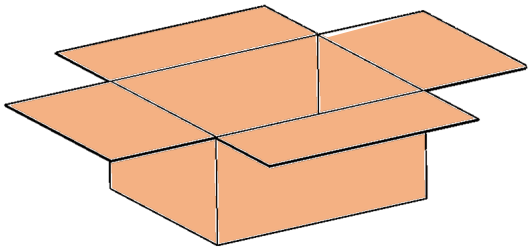



Cluster to Cluster Paralleling
DC- Cables (x2) (5m) (V)


Battery Cabinet to Battery Cabinet
AC Auxiliary Cable (5m) (W)

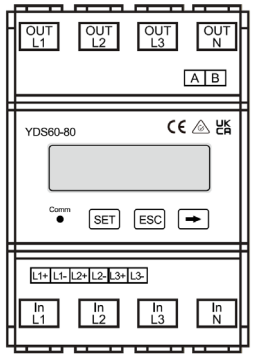
Battery Cabinet to BUI100
Modbus TCP Cable (5m) (X)

**PAY ATTENTION!**
All Cables are marked with a designation label

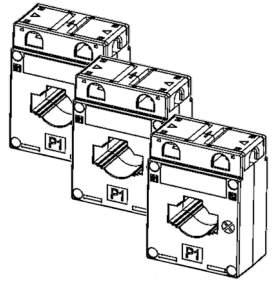


*This kit is ordered separately for 2:1 installations

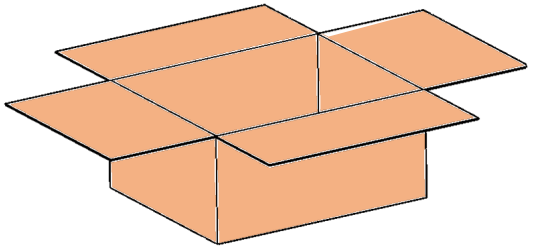
## Metering Kit*




CSS Meter (Y)

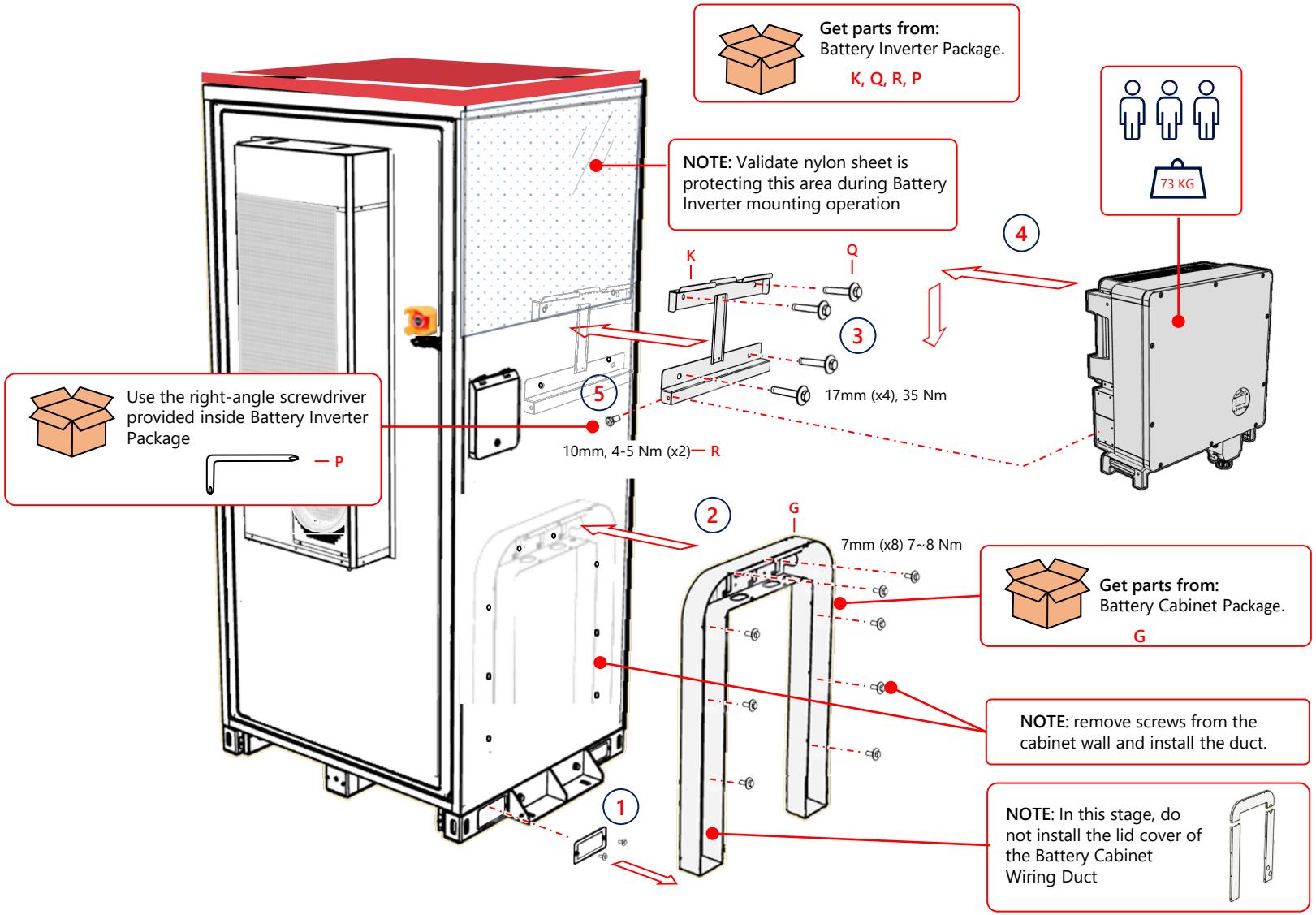


Current Transformers for CSS Meter (x3) (Z)



*This kit is ordered separately for configuration 2 & 4: Site with partial backup

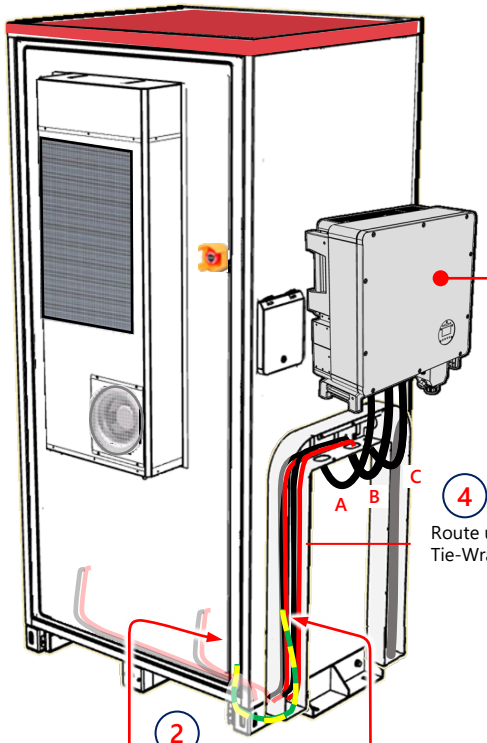
# Mounting the Battery Inverter onto Battery Cabinet



# Battery Cabinet & Battery Inverter Wiring Management

Get parts from:
Battery Cabinet Package

A, B, C, E, I, J

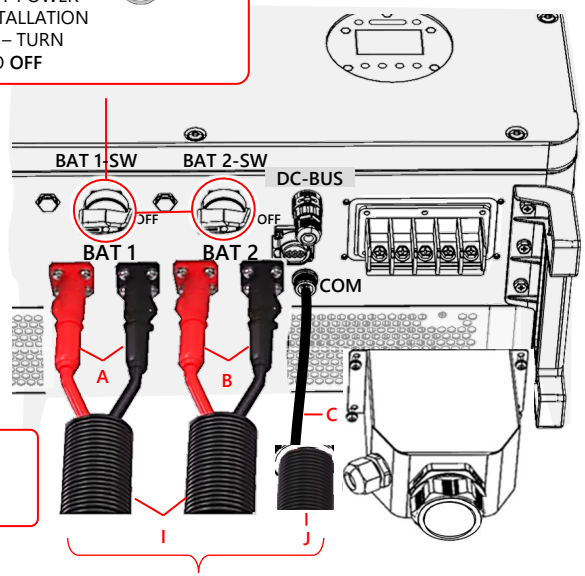



4 Route using Tie-Wraps

**WARNING!** HAZARD OF ELECTRIC SHOCK. DISCONNECT POWER BEFORE INSTALLATION OR SERVICE – TURN SWITCHS TO **OFF**

OFF

Battery Inverter

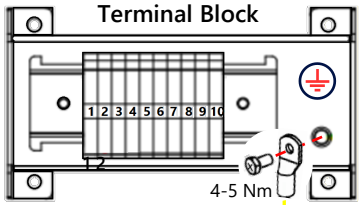



**NOTE!** Cut the corrugated tubes to the required length.

3 Detailed wiring is provided on the next 2 pages

2

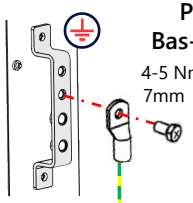
Terminal Block




4-5 Nm
10mm

1

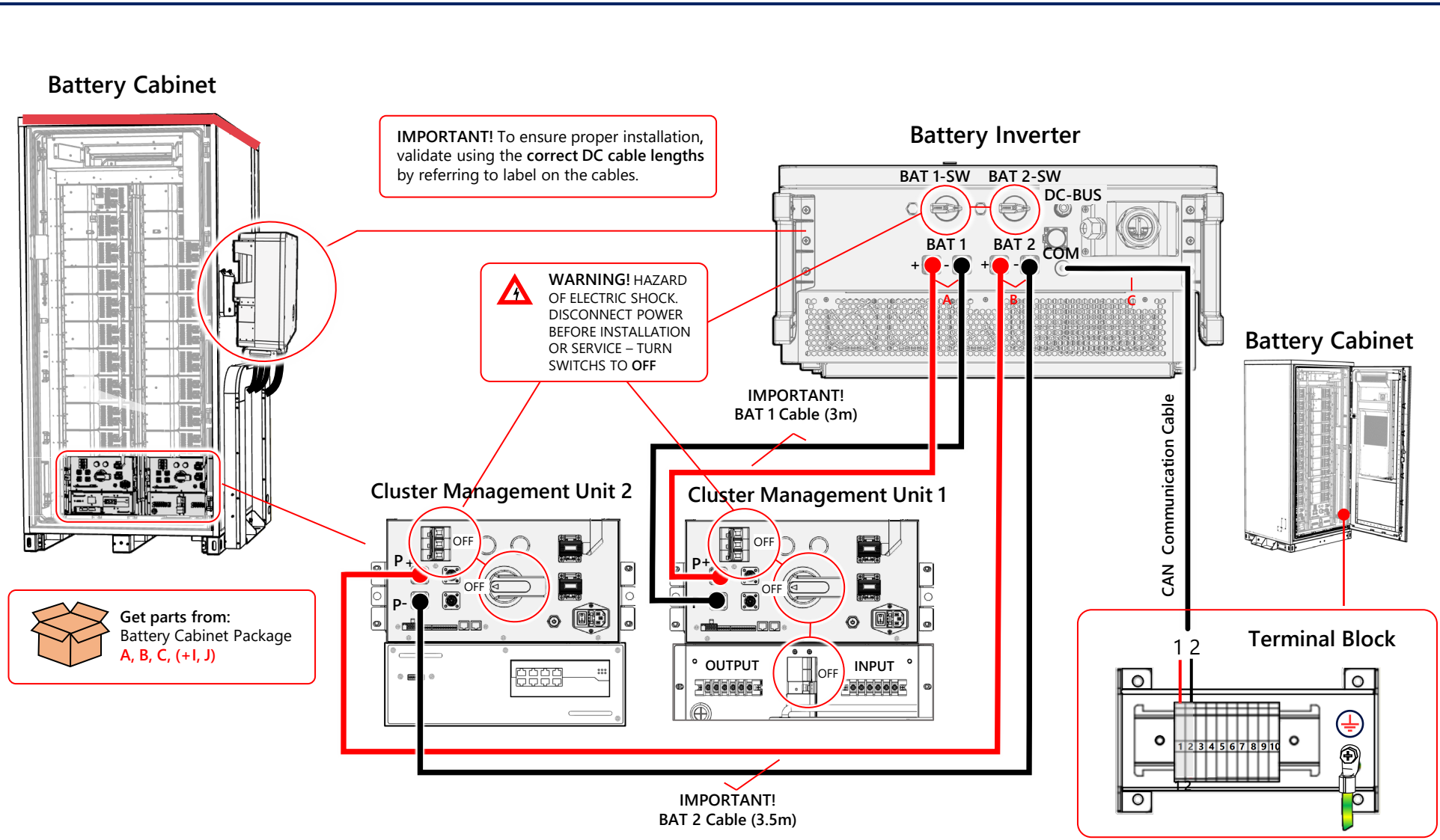
PE
Bas-Bar



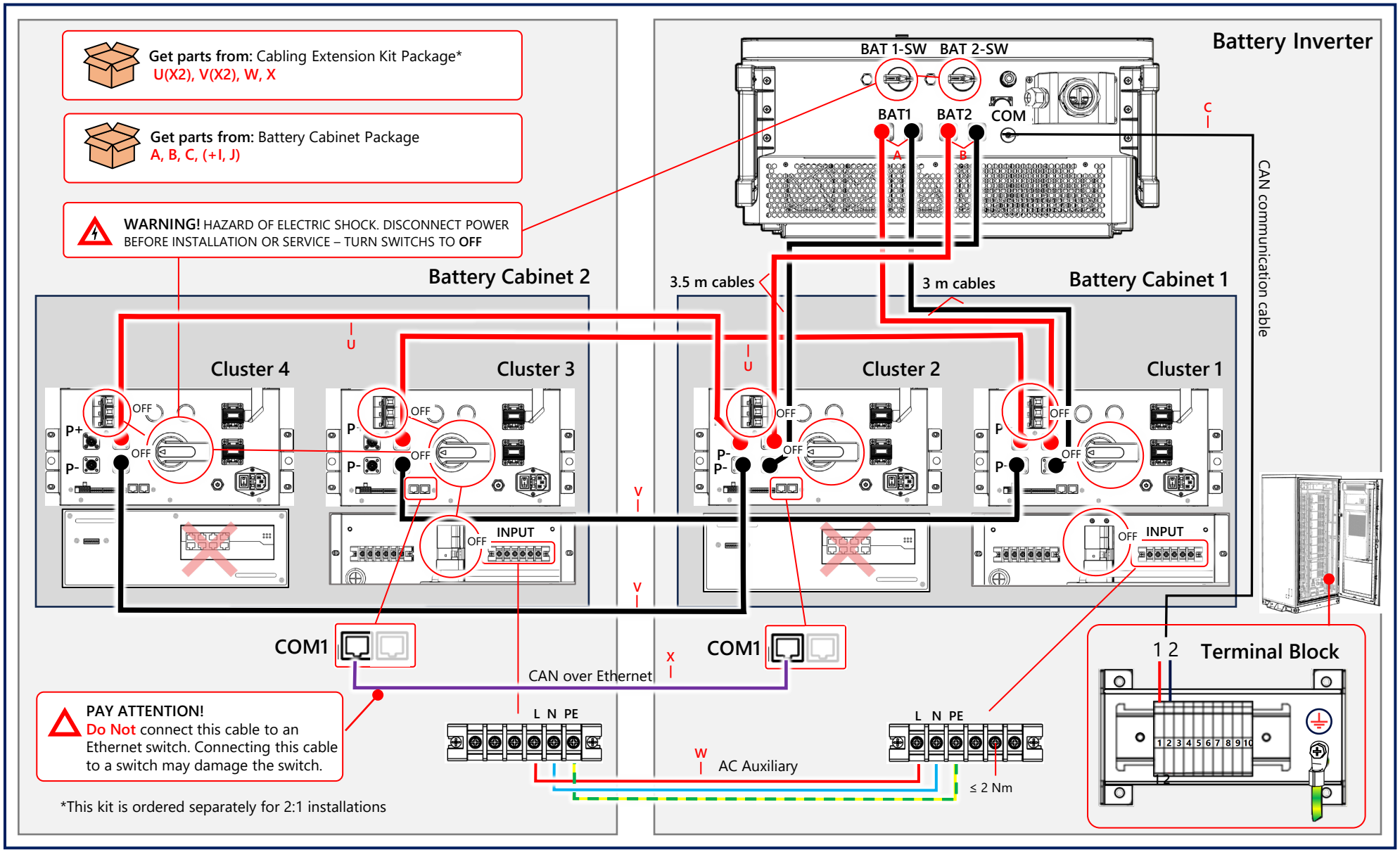
4-5 Nm
7mm

I
E

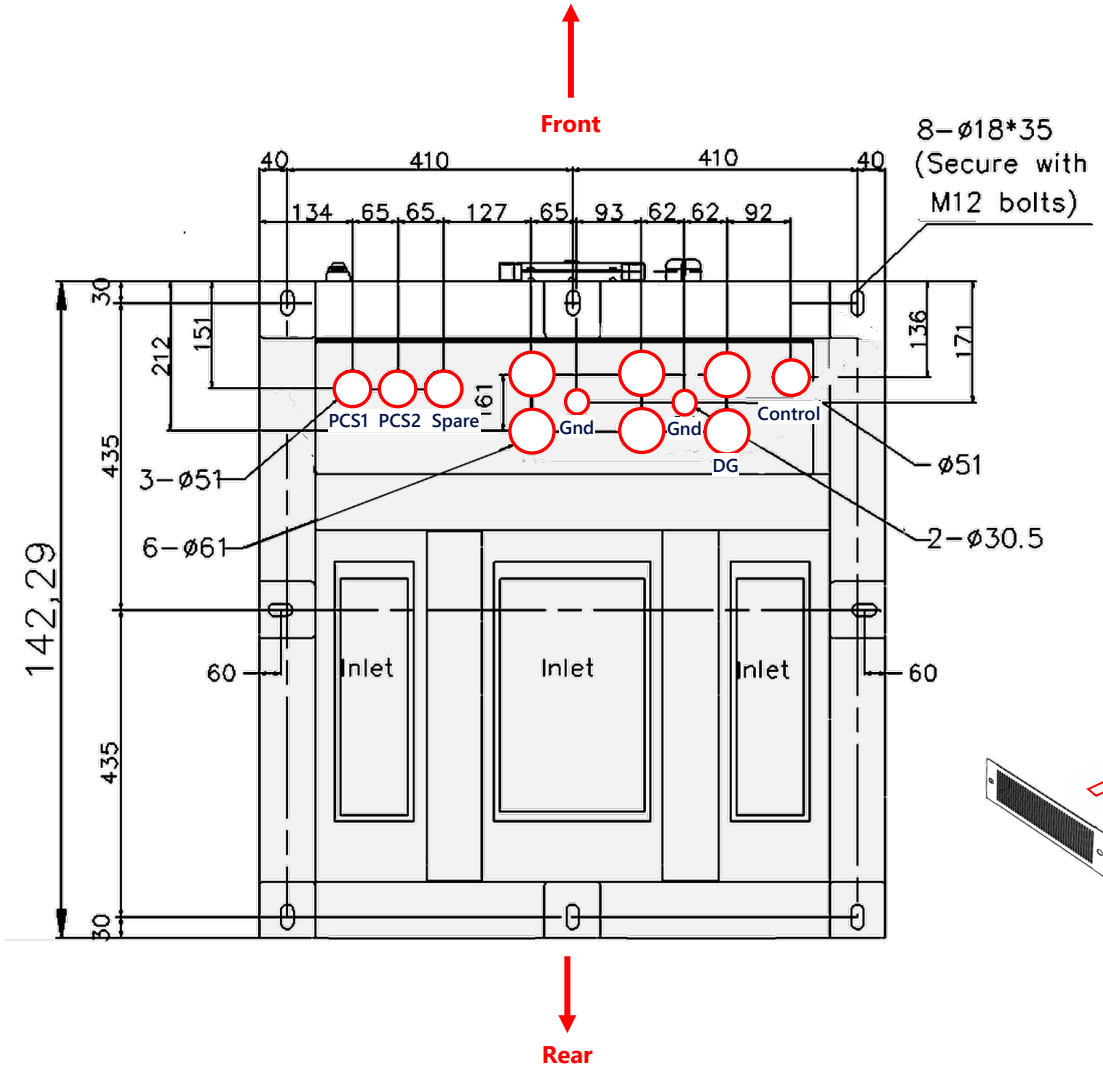
# Wiring Single Battery Cabinet to Battery Inverter



# Wiring two Battery Cabinets to Battery Inverter



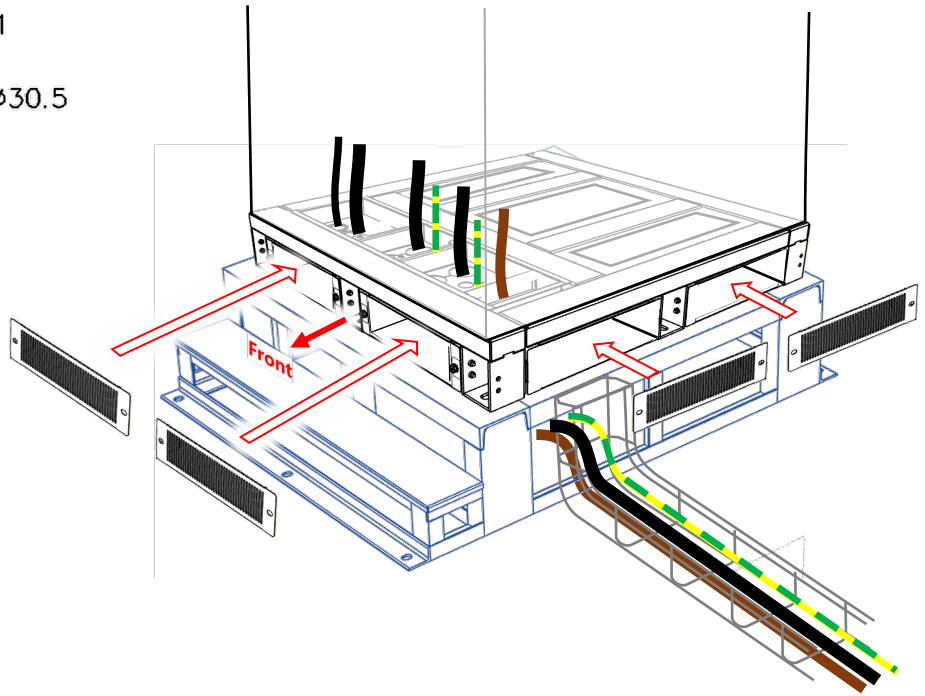
# BUI100 Cabling Routing Method



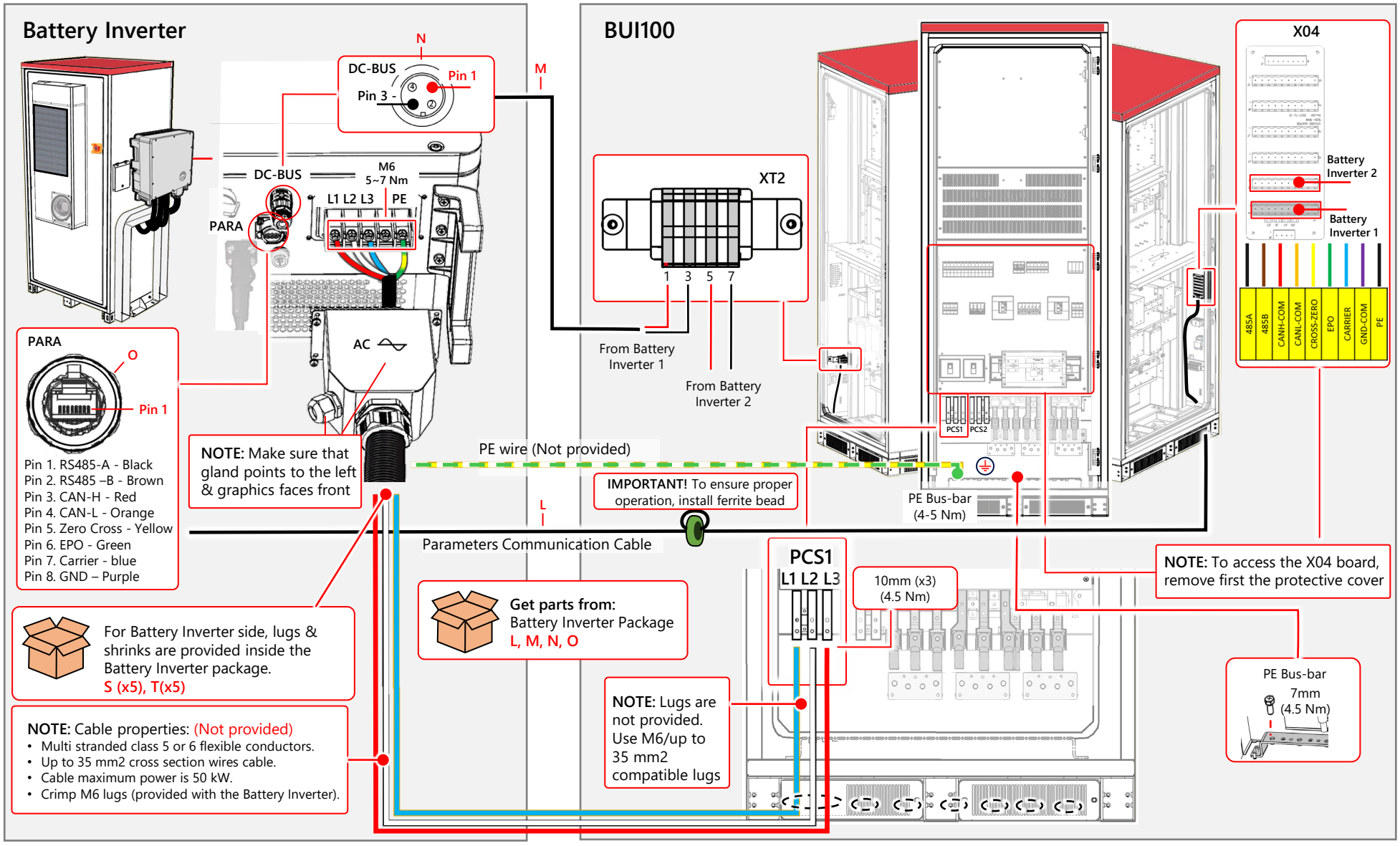

**IMPORTANT NOTE!**

1. Communication cables and power wires **must** be laid separately (DC and AC loops).
2. The distance between different cables must be greater than 30mm. In cases when control cables crosses power cables, validate that the angle between the two cables is kept at 90°.
3. The recommended minimum distance between parallel shielded data cables and power cables is shown below:

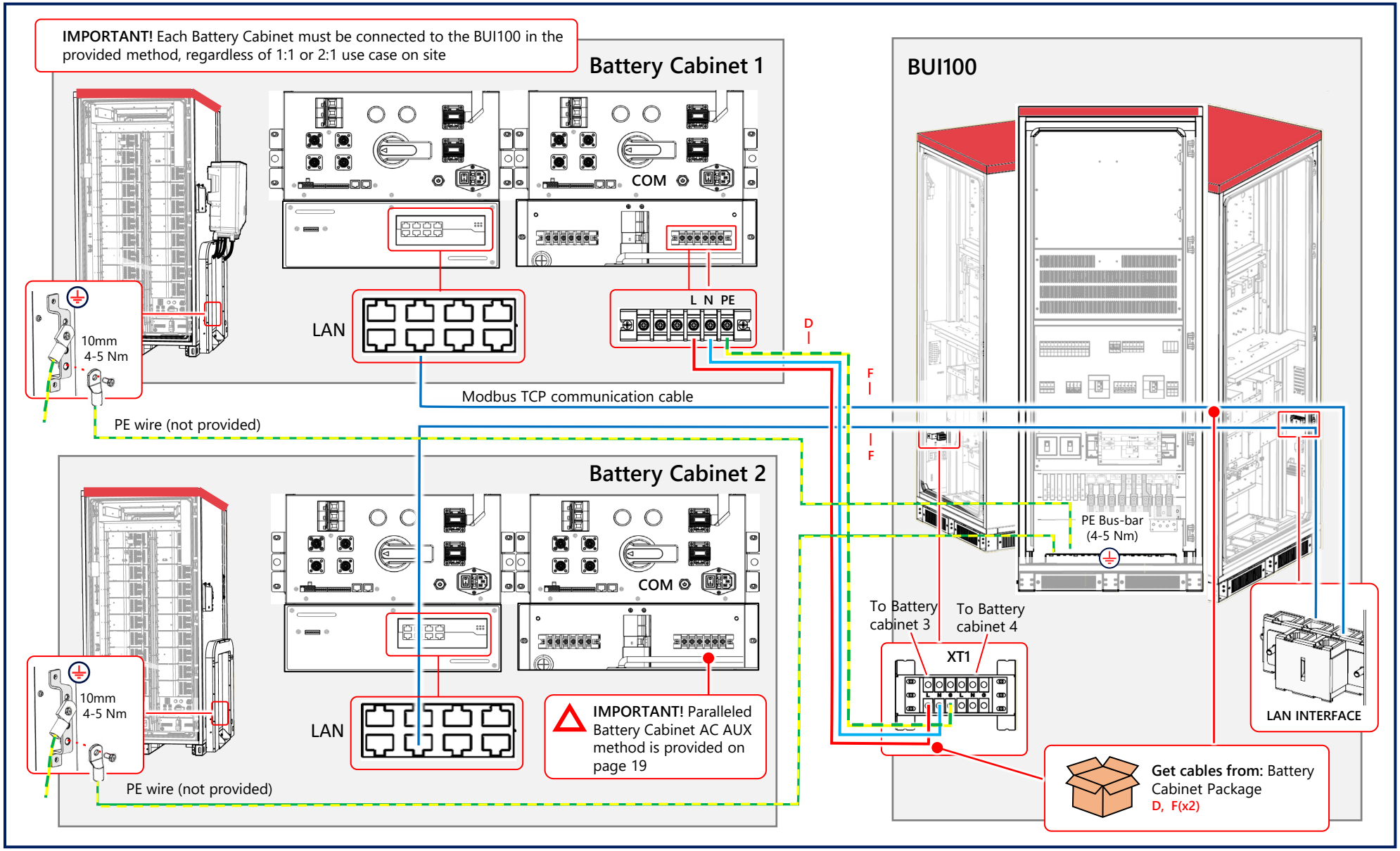
| Parallel length (m) | Min space distance (m) |
|---|---|
| 200 | 0.3 |
| 300 | 0.5 |
| 500 | 1.2 |



# Wiring Battery Inverter to BUI100

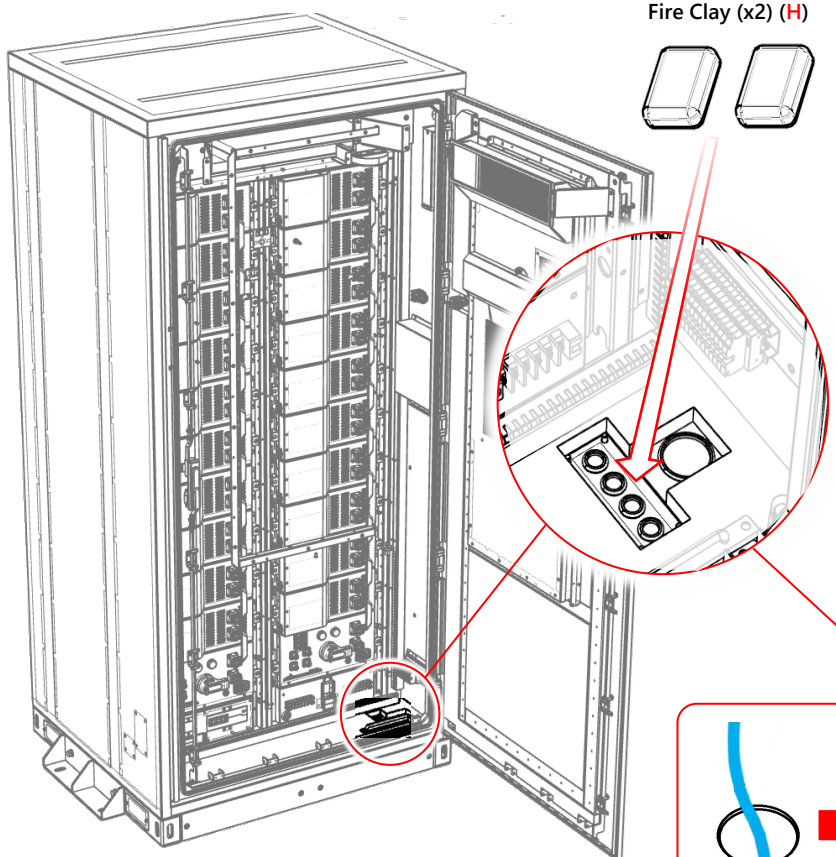


# Wiring Battery Cabinets to BUI100

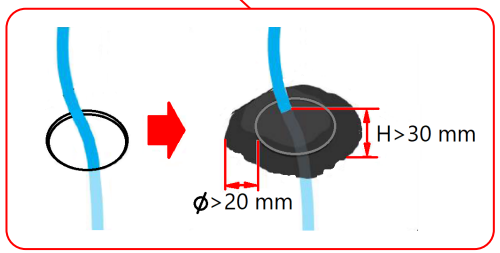


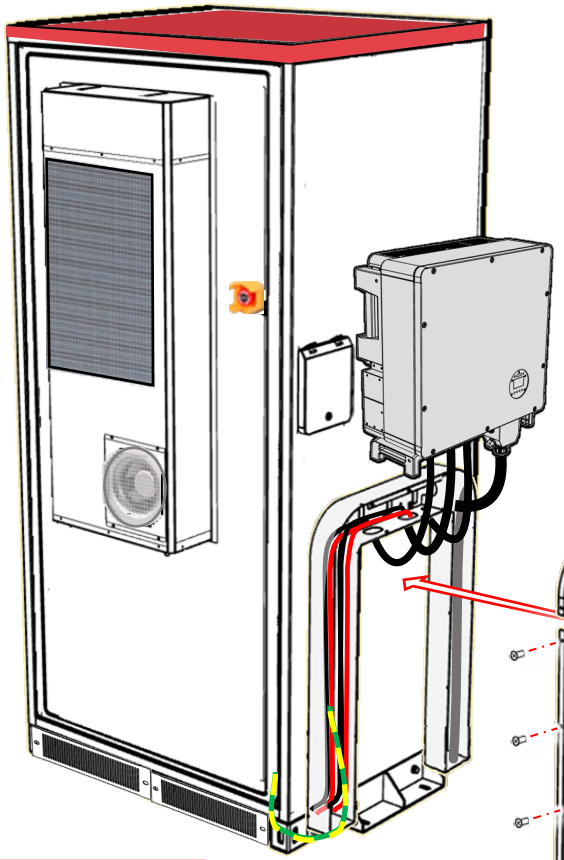
# Wiring Duct Lid Closing & External Cables Wiring Method

**IMPORTANT!** Use fire clay to block the cable gaps and seal un-routed wiring holes.

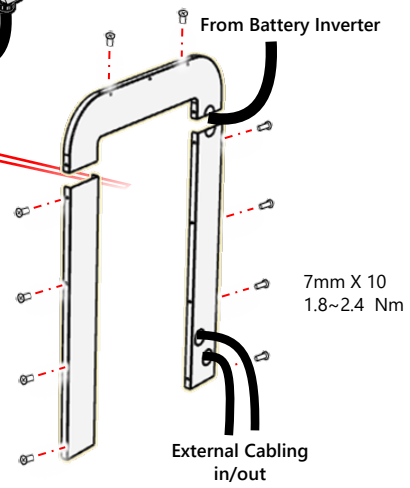


Fire Clay (x2) (H)

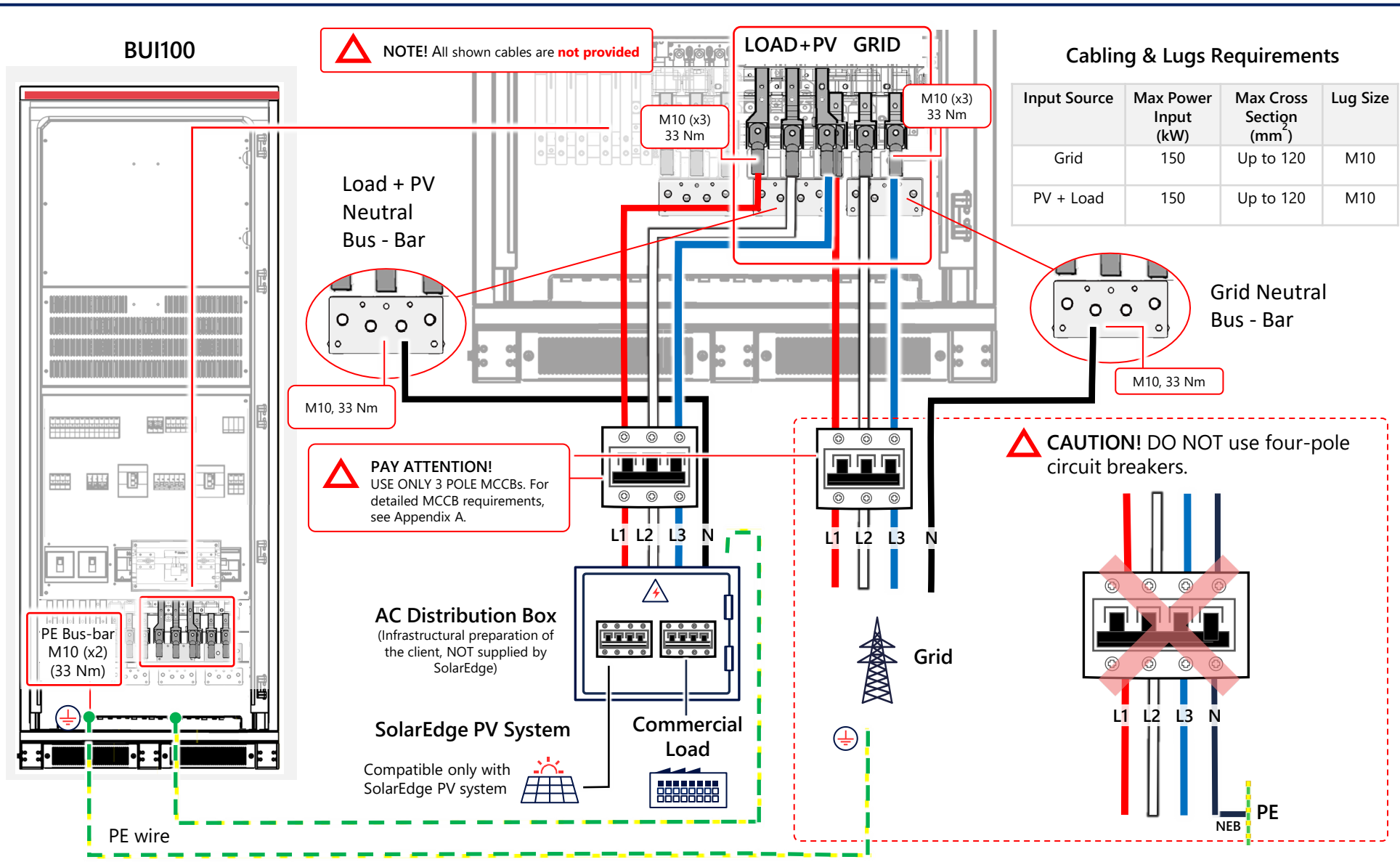


**Get parts from:** Battery Cabinet Package (H, G [Duct Cover])



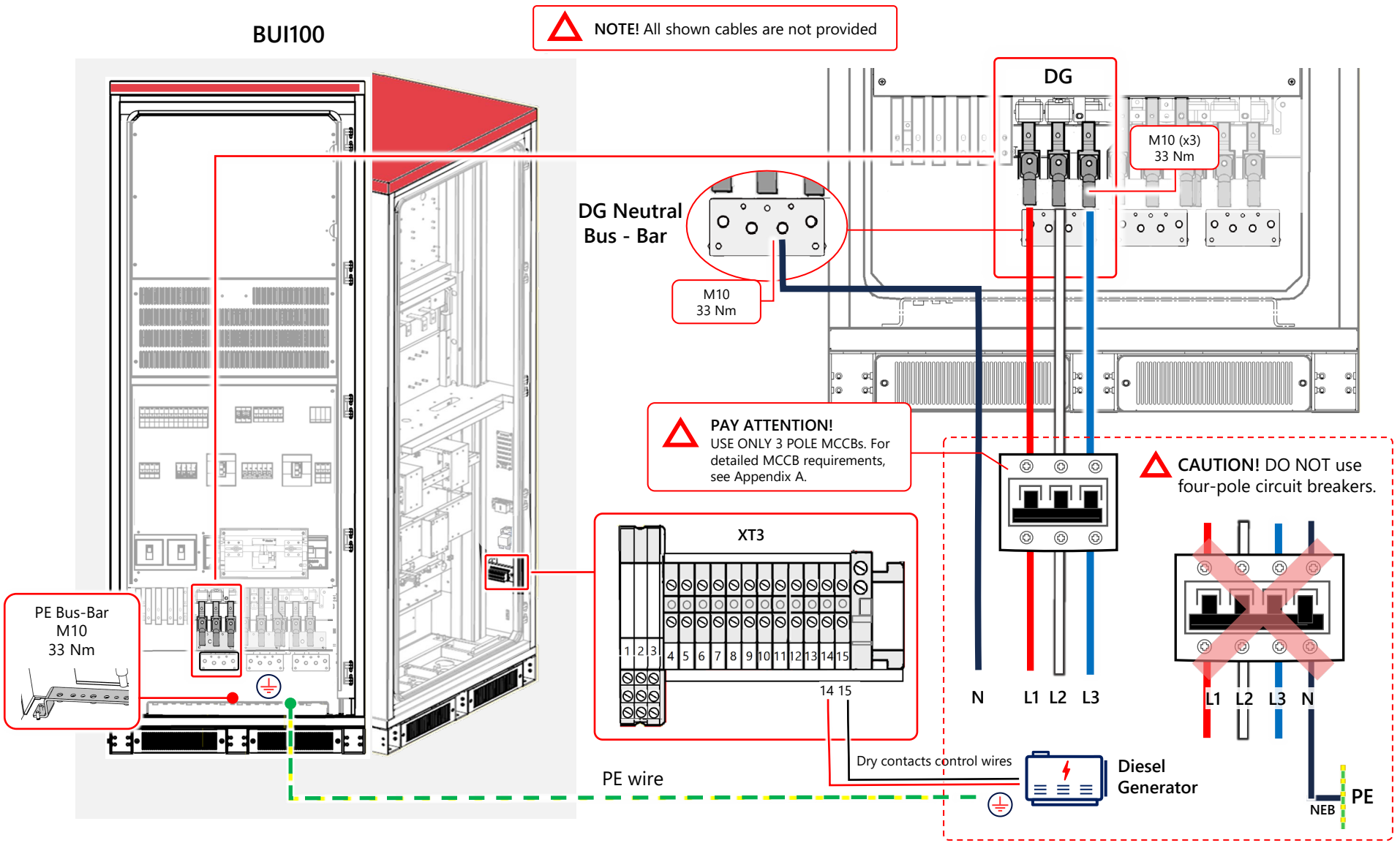
# Connecting BUI100 to Grid, Load + PV Inputs



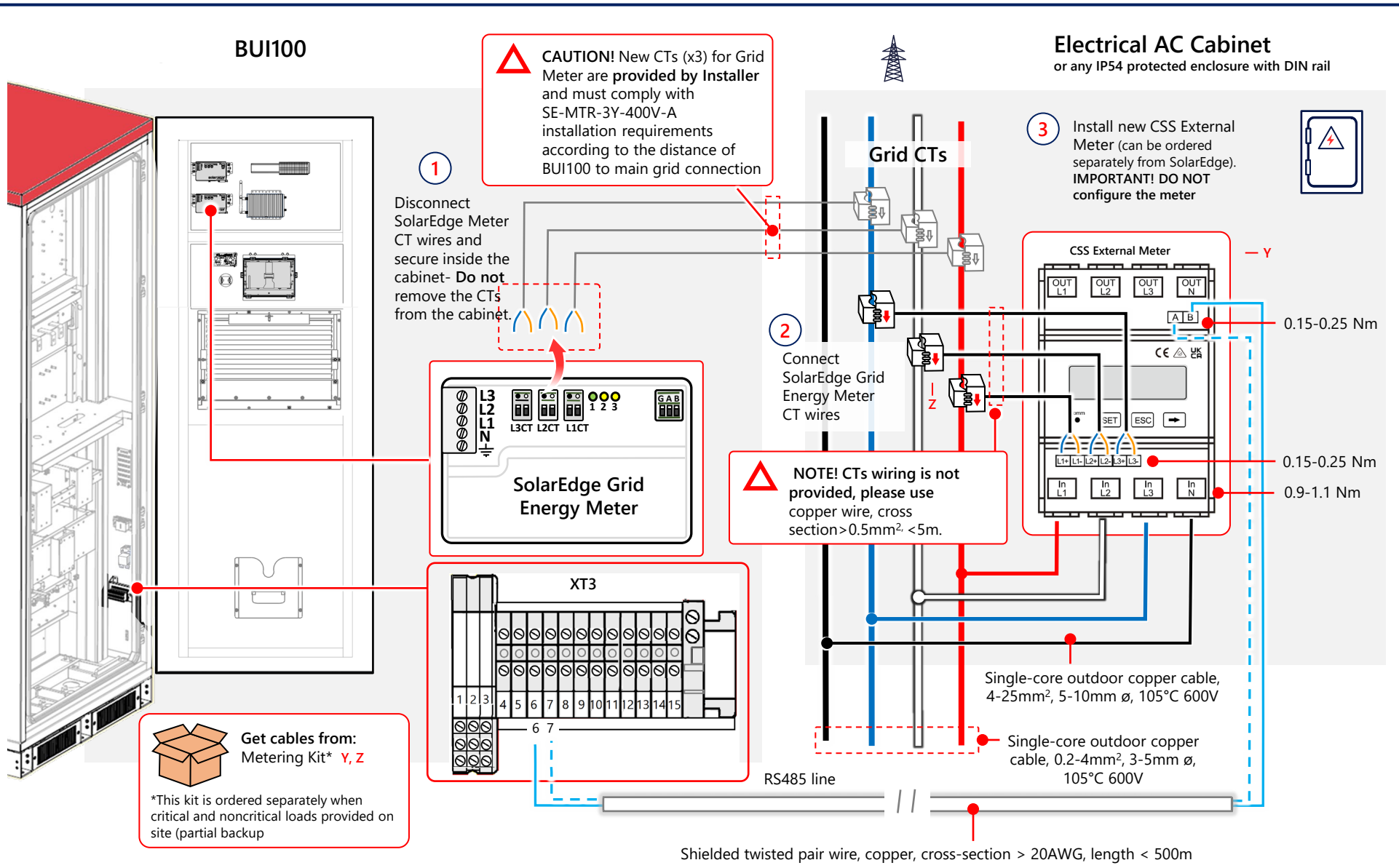

## Cabling & Lugs Requirements

| Input Source | Max Power Input (kW) | Max Cross Section ($mm^2$) | Lug Size |
|---|---|---|---|
| Grid | 150 | Up to 120 | M10 |
| PV + Load | 150 | Up to 120 | M10 |

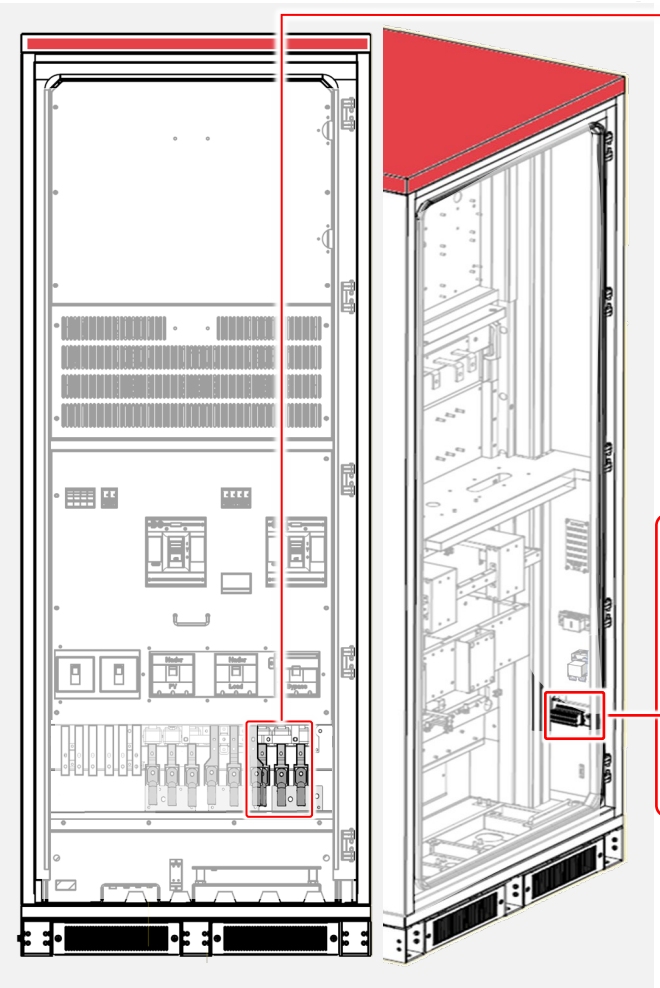
# Connecting Diesel Generator to BUI100



# Connecting BUI100 to CSS External Meter



# Connecting BUI100 to 3rd Party External Automatic Transfer Switch (ATS)



GRID

M10 (x3)
(33 Nm

Grid Neutral
Bus - Bar

M10
33 Nm

XT3

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

8 9 10 11 14 15

DG control wiring

Grid contactor status

DG contactor status

L1 L2 L3 N

**PAY ATTENTION!**
USE ONLY 3 POLE MCCBs. For detailed MCCB requirements, see Appendix A.

ATS

Power

Grid

**CAUTION!** DO NOT use four-pole circuit breakers.

L1 L2 L3 N PE

NEB

Power &
Communication

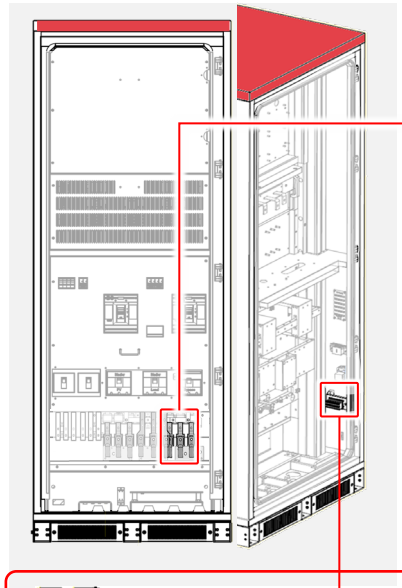
Diesel
Generator

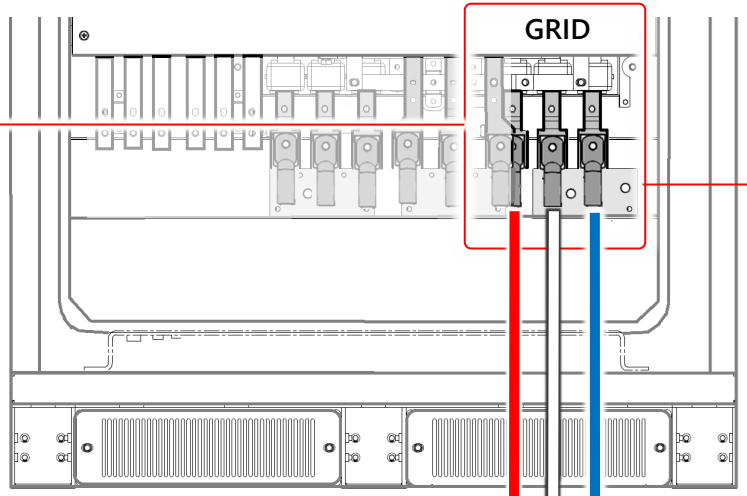
**NOTE:** ATS connection to Grid & DG must be preinstalled by the customer

**WARNING!** HAZARD OF ELECTRIC SHOCK. ATS GRID & DG contactors shall be disconnected from all power sources during the installation phase

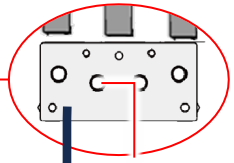
OFF OFF

# Connecting BUI100 with external Automatic Transfer Switch & Critical & Non-Critical Loads





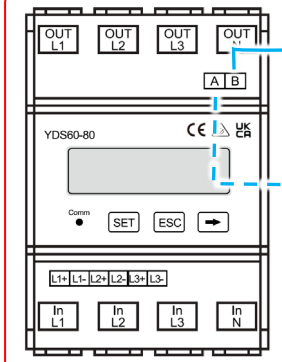

Grid Neutral Bus - Bar

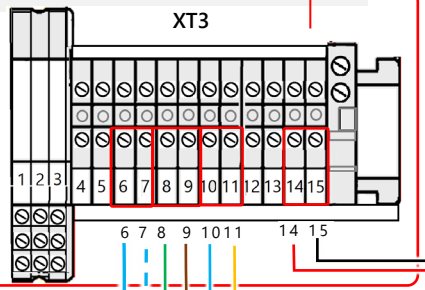


M10
33 Nm

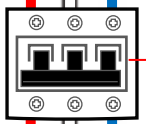
**PAY ATTENTION!** For complete connection of meter, refer to: **Connecting BUI100 to CSS External Meter**

CSS External Meter




**WARNING!** HAZARD OF ELECTRIC SHOCK. ATS GRID & DG contactors shall be disconnected from all power sources during the installation phase

**PAY ATTENTION!** USE ONLY 3 POLE MCCBs. For detailed MCCB requirements, see Appendix A.

**NOTE:** ATS connection to Grid & DG must be preinstalled by the customer

L1 L2 L3 N

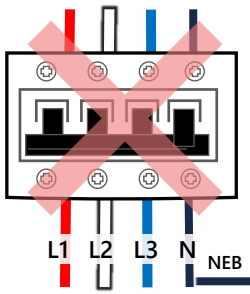
ATS

Grid contactor status

Dry contacts control wires

DG contactor status

**CAUTION!** DO NOT use four-pole circuit breakers.




Diesel Generator

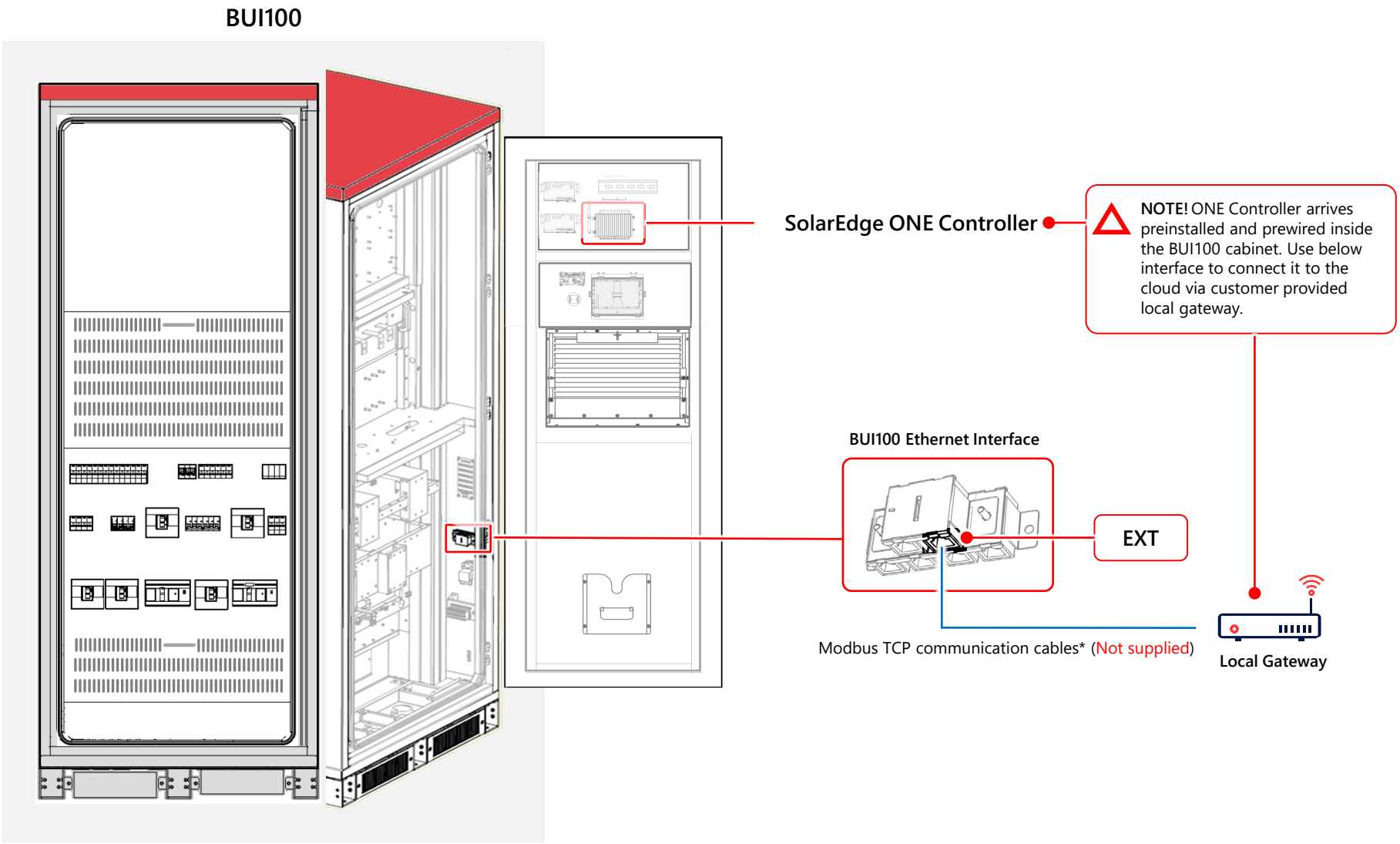
Non-Critical Load

Grid

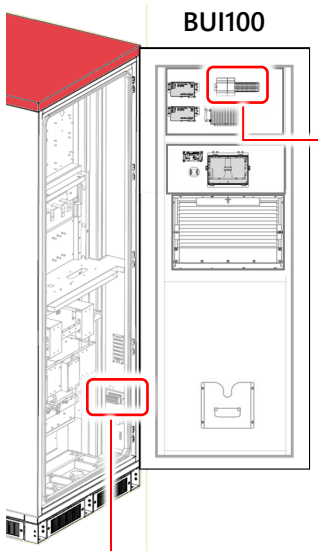
Power

Power & Communication

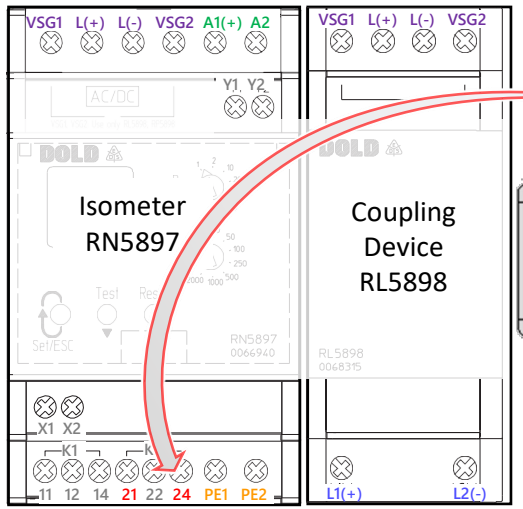
# Connecting SolarEdge ONE Controller to Local Gateway



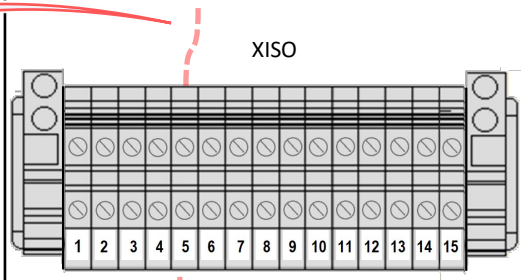
# Installing Isometer and Coupling Device & Connecting to BUI100 EPO (Optional)




1 Install Isometer & Coupling Device onto the DIN rail



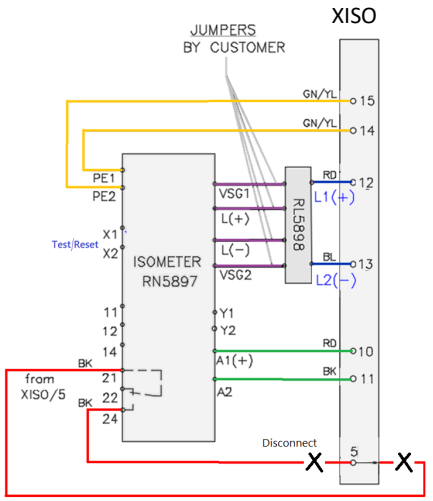

**NOTE:**
1. Recommended Insulation Monitor (Isometer) by DOLD RN5897 or equivalent.
2. Recommended coupling device by DOLD RL5898 or equivalent.



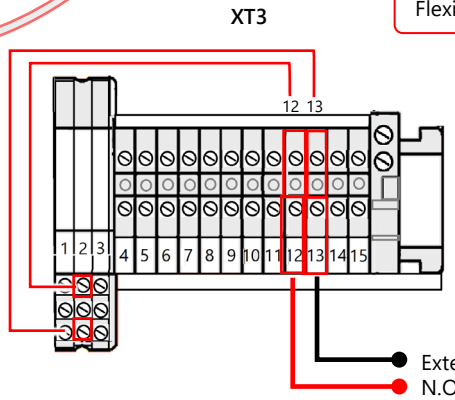

2 Move wire from lower terminal 5 of XISO to terminal 21 of the Isometer

3 Move wire from upper terminal 5 of XISO to terminal 24 of the Isometer

4 Complete wiring as shown in the diagram below.




**NOTE:**
For steps 4 & 5 only the following wires:
Flexible wires, 1.5 $mm^2$ cross section, 600V

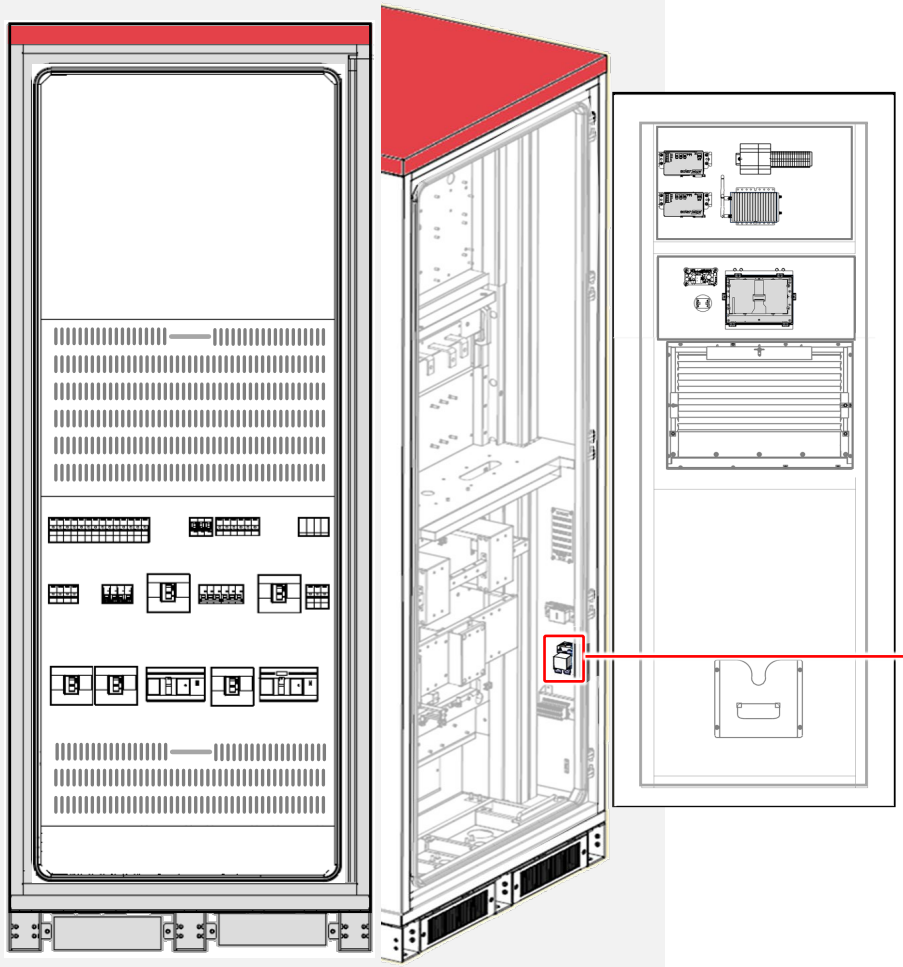



5 Connect jumpers between terminals 12-14 and 11-13

6 Set the Isometer in accordance with manufacturer datasheet.

# Connecting Grid / Diesel Generator / PV to BUI100 EPO (Optional)

BUI100

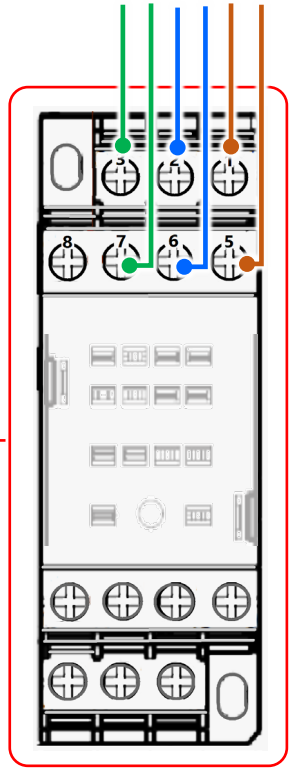


**IMPORTANT!** When the BUI trips, all external power sources trip simultaneously. If connected to EPO Relay 1

Grid

Load + PV

Diesel Generator



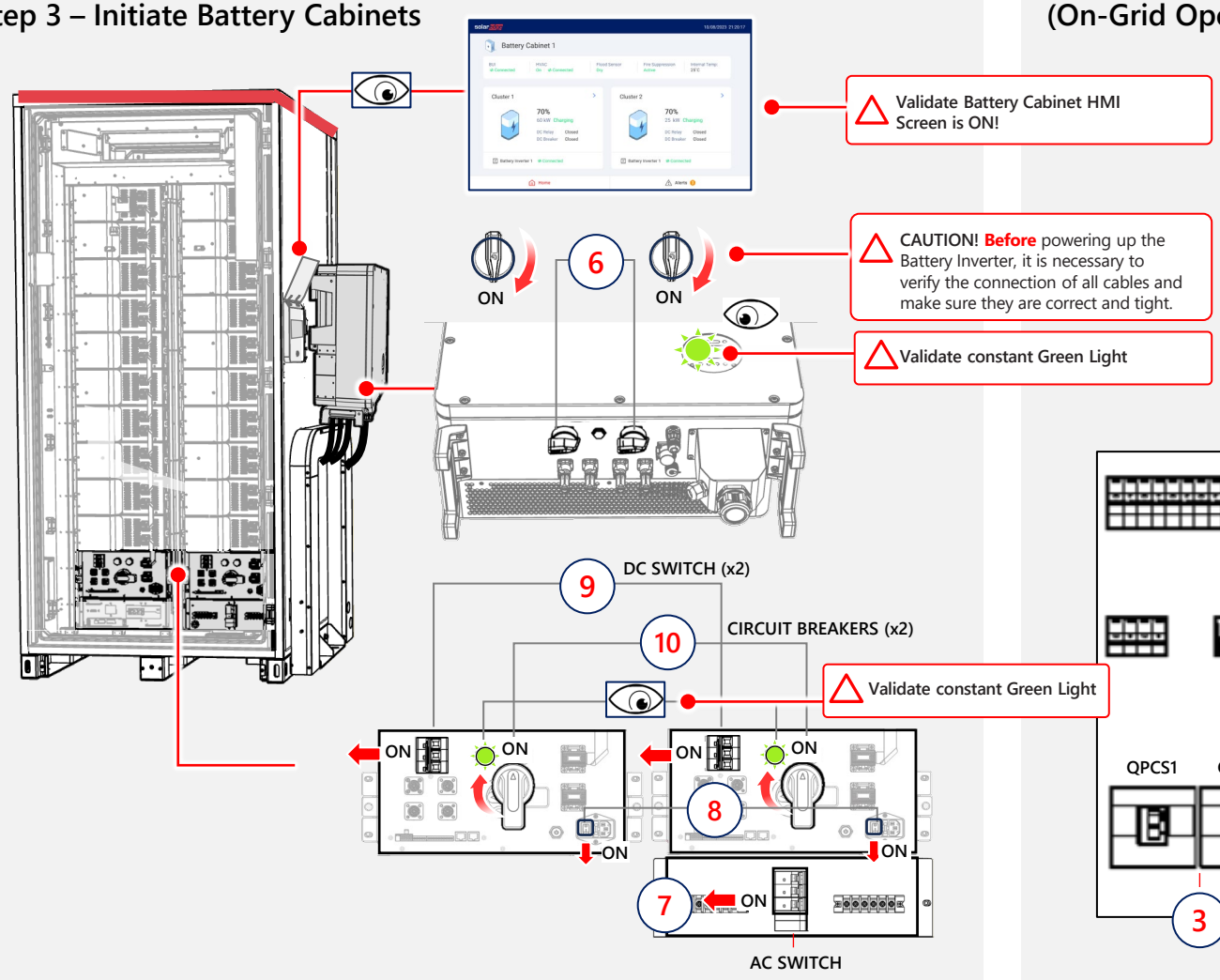

**EPO Relay 1**

N.O Contacts, load (resistive) 5A
220VAC/24VDC

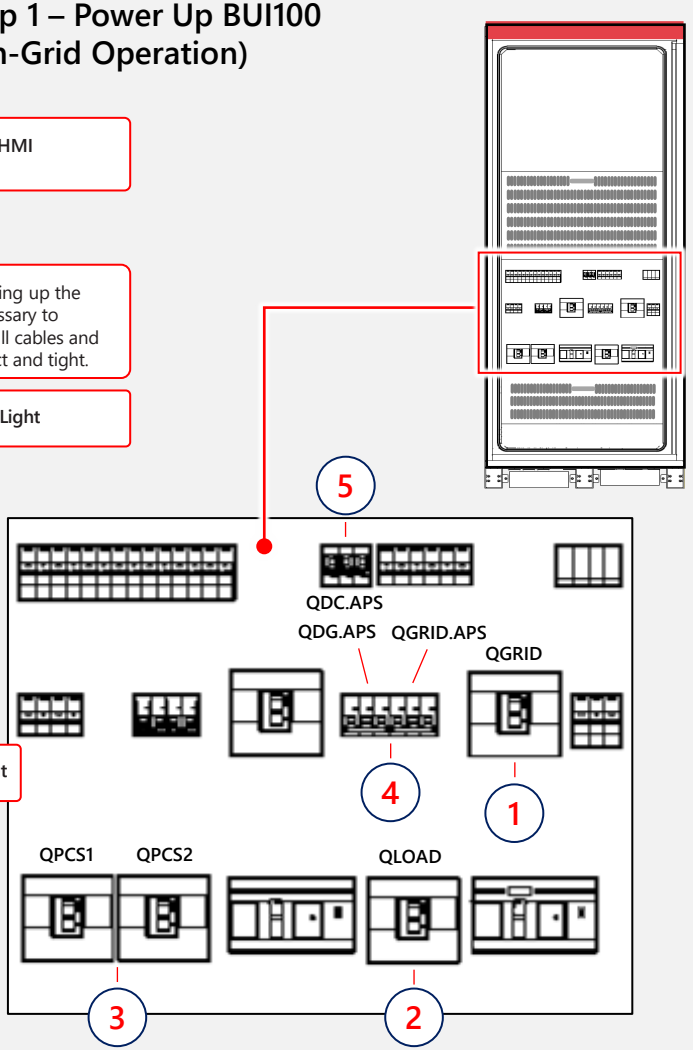
# Power Up Sequence

Follow the numbered steps to power up the system

## Step 2 – Initiate Battery Inverters DC Switches
## Step 3 – Initiate Battery Cabinets

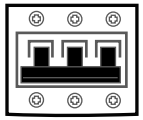



## Step 1 – Power Up BUI100 (On-Grid Operation)



# Appendix A
## Electrical Component Requirements & Construction Details

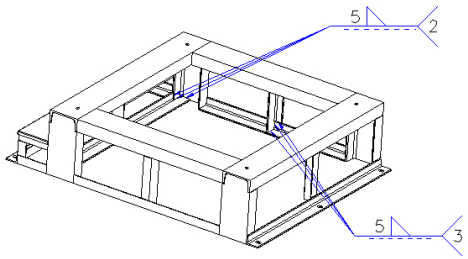
# Customer Provided Circuit Breakers Requirements

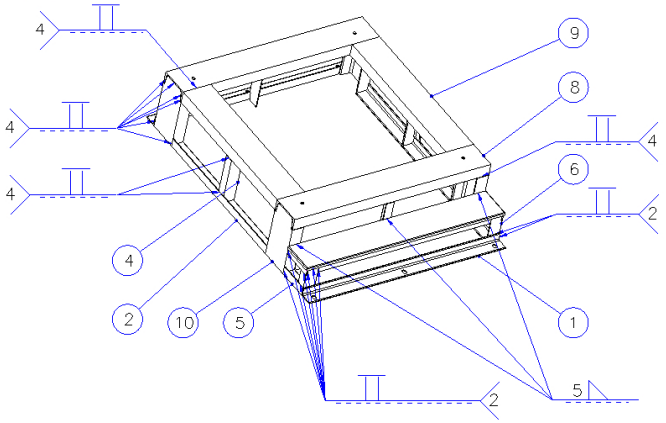


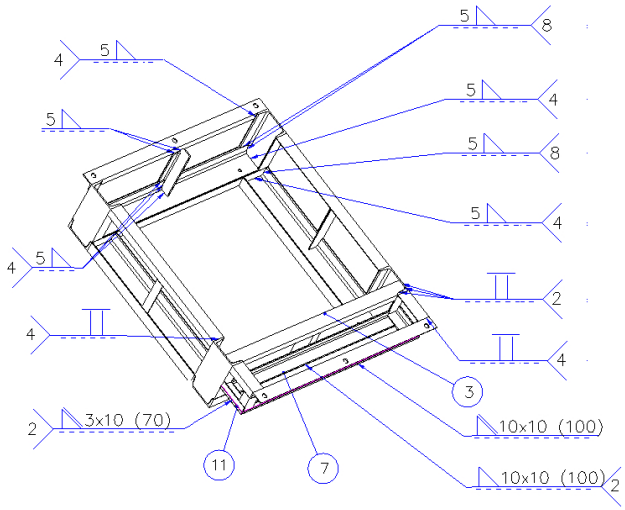
1. Rated short-circuit breaking capacity current Icu ≤ GRID maximum short circuit current.
2. Instantaneous protection against short-circuit should not exceed minimum phase to earth short circuit current provided by the power supply (consider the low level of short circuit current supplied by DG and PV).
3. Instantaneous short circuit protection of the GRID and DG feeders must ensure protection of the PV+LOAD panel (fed from the BUI) from minimum short circuit current.
   This protection should be considered:
   A. When fed from the GRIG, QBPGRID is closed.
   B. When fed from DG QBPDG is closed.
4. Customer circuit breakers supplying BUI100 from GRID, DG and PV should be equipped with trip coil to trip power sources in case of Emergency Stop signal from the BUI.
   Trip signal from the BUI (C/O) contact is 400mS.
5. No other devices shall be connected to this Circuit Breaker. It shall serve only the dedicated power source it is connected to in series.

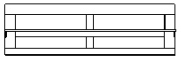
# BUI100 Steel Frame Production Guidelines

All dimensions are in [mm]



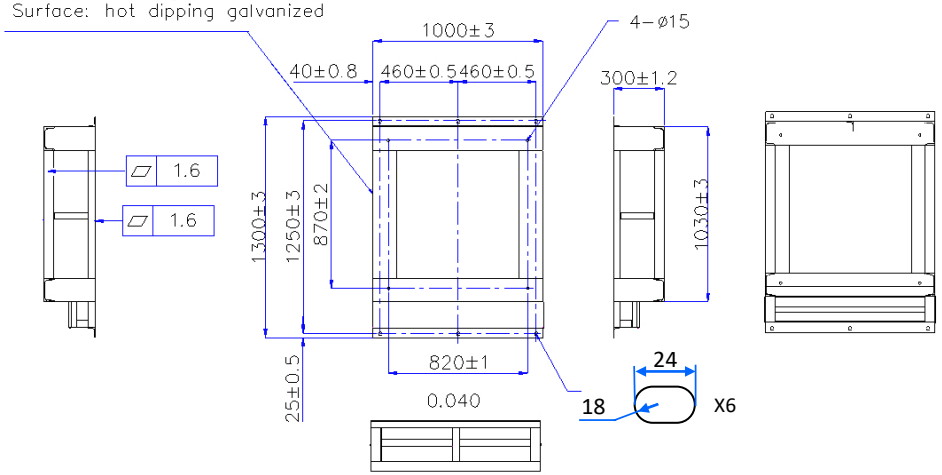




| No | Part Name | qty |
|---|---|---|
| 11 | footboard | 1 |
| 10 | U-steel C | 4 |
| 9 | U-steel | 2 |
| 8 | B-steel | 2 |
| 7 | Unequal Angle steel G | 2 |
| 6 | Unequal Angle steel F | 2 |
| 5 | Unequal Angle steel E | 4 |
| 4 | Unequal Angle steel | 4 |
| 3 | Unequal Angle steel | 1 |
| 2 | Unequal Angle steel | 2 |
| 1 | Unequal Angle steel | 2 |

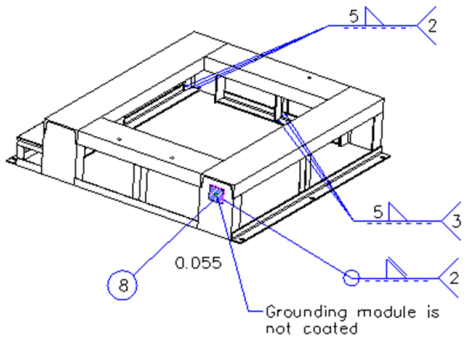
U-steel and Angle steel are both Q235A
Surface: hot dipping galvanized

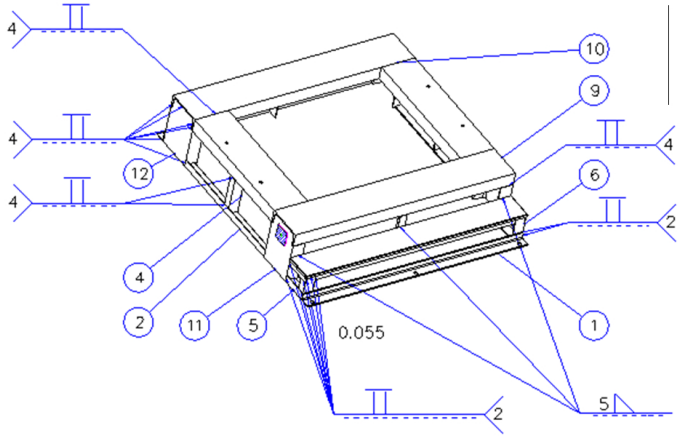


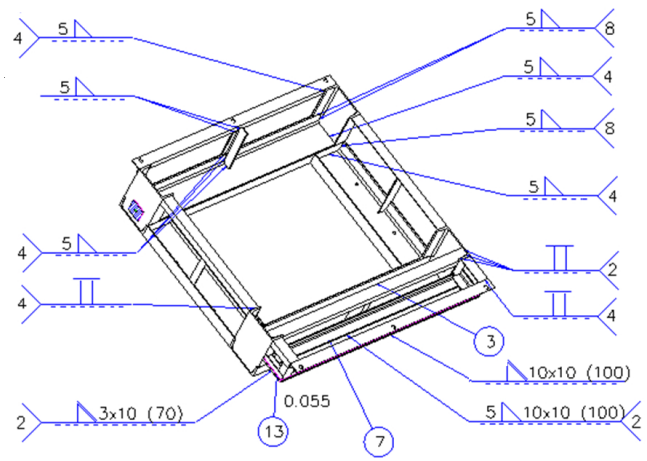

**Technical Requirements:**

1. Solid welding, no virtual welding.
2. After welding, except for welding slag, the outer surface of the parts is polished and smooth.
3. Spray protection according to the requirements of the drawing, all stud end faces and threads need spray protection.
4. No dimensioned tolerance according to GB/T 1804-M processing.
5. The unmarked position tolerance shall be executed in GB/T 1184-K class.
6. With* number is an important size, need to focus on inspection.
7. For other dimensions not specified, refer to the 2D/3D drawing.

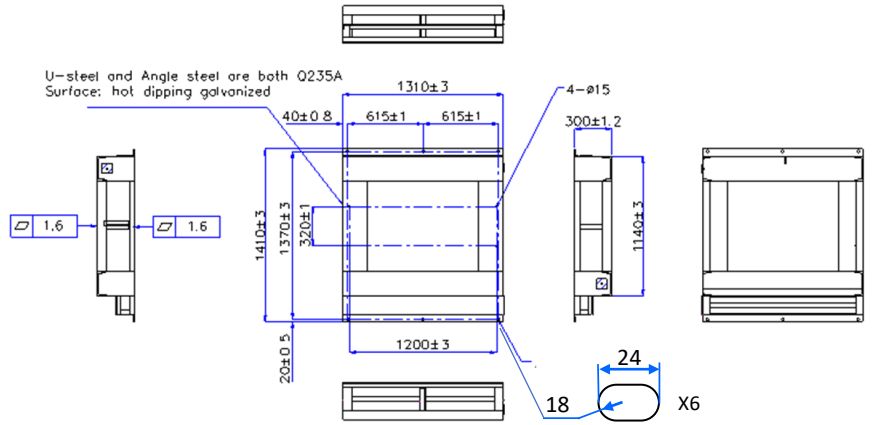
# Battery Cabinet Steel Frame Production Guidelines




| No | Part Name | qty |
|---|---|---|
| 13 | footboard | 1 |
| 12 | U-steel D | 2 |
| 11 | U-steel C | 2 |
| 10 | U-steel B | 2 |
| 9 | U-steel A | 2 |
| 8 | Stainless steel grounding module | 2 |
| 7 | Unequal Angle steel G | 2 |
| 6 | Unequal Angle steel F | 2 |
| 5 | Unequal Angle steel | 4 |
| 4 | Unequal Angle steel D | 4 |
| 3 | Unequal Angle steel C | 1 |
| 2 | Unequal Angle steel | 2 |
| 1 | Unequal Angle steel A | 2 |

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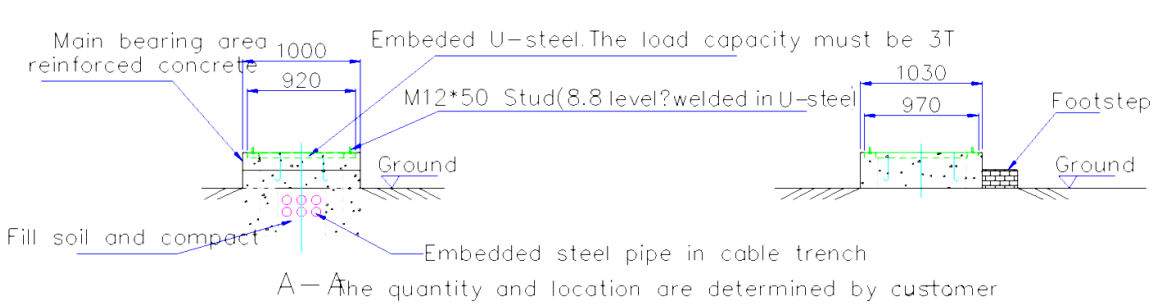
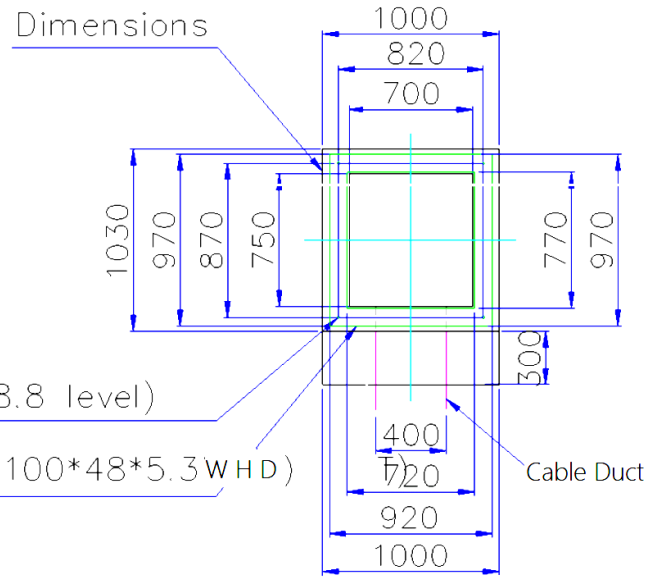
7. For other dimensions not specified, refer to the 2D/3D drawing.

# Battery Cabinet Concrete Pad Guidelines

**IMPORTANT!**

1. Battery Cabinet must be installed on a reinforced concrete platform base.
2. The concrete pad shall be able to support the weight of the cabinets and to ensure their stability.
3. When designing and manufacturing the embedded steel plates for the battery cabinet, it is necessary to consider that there must be a reliable connection (reinforcement hook) between the embedded steel plate and the concrete base.
4. Battery Cabinet concrete pad minimum carrying capacity shall be 0.8MPa, it is necessary to consider the influence of actual local environmental factors.
5. When molding the concrete pad, it shall protrude below the ground as minimum of 400 mm.
6. The height of the concrete pad above the ground shall be at least 300 mm.
7. Concrete base surface smoothness shall be ≤ 3mm.
8. The upper surface tolerance of the foundation shall be ±5mm.
9. The concrete pad shall prevent rainwater accumulation on top of it & drainage measures must be taken in the cable trench to prevent water accumulation in the cable trench.




## Concrete Pad with pre-integrated studs

**Support Contact Information**
If you have technical problems concerning SolarEdge products, please contact us:
https://www.solaredge.com/service/support