

#### IV. INSTALLATION INSTRUCTIONS

##### STEP 1. UNPACKING

Unpack the PowerSave Rack unit from the carton box and remove from the wooden pallet.



- Remove the upper cap and slide the carton sleeve up.

- Locate underneath the Rack, a brown box that contains the Rogowski CT wire.
- To dismantle the Rack from the pallet, remove the 4 hardware T-nut with hex bolt located at the bottom.

#### Notes

- Tools Required
  - Knife Cutter
  - Adjustable Wrench (for removing the rack fixing lag bolt from the wooden pallet platform)
- Inspect and check for loose or damaged parts.
- Optional Accessories PowerSave Breaker Box see Appendix F

**CAUTION: HEAVY ITEM**

Please refer to your manual handling procedure. Use mechanical lifting devices whenever possible

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STEP 2. Open the rear door panel. Locate the two panel latch as shown. Unpack the plastic bag containing the Accessories pack. Underneath the rack is the CT wire with 30meter extension.

Note: For Optional Accessories PowerSave Breaker Box see Appendix F



Rear door panel



Accessories pack



**Note:** Do not use PowerSave Rack in case of any breakage or loose connections.

Refer to packing list (page 14). Please remove loose contents including accessories pack and Rogowski pack. Please advise edge electrons if any parts missing.

- STEP 3. Check for any loose or foreign materials everywhere inside the rack including but not limited to screws, wire, bolts, terminals, metal filings, excess grommet – anything that may affect the operation of the unit
- STEP 4. Prior to performing the wire install for the rack, open the Rack door and make sure all the module and controller breakers to be in the OFF position as shown.

Controller Breaker



ON Position



OFF Position

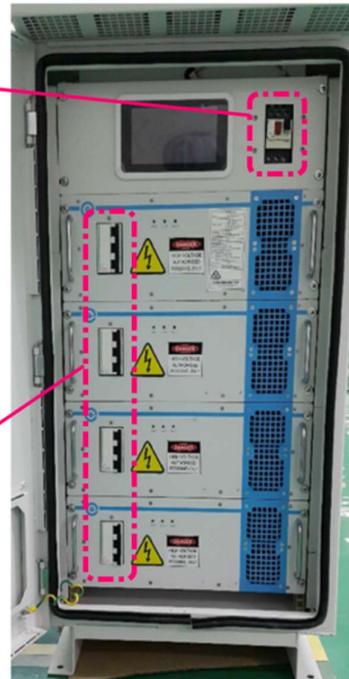
Module Breaker



ON Position

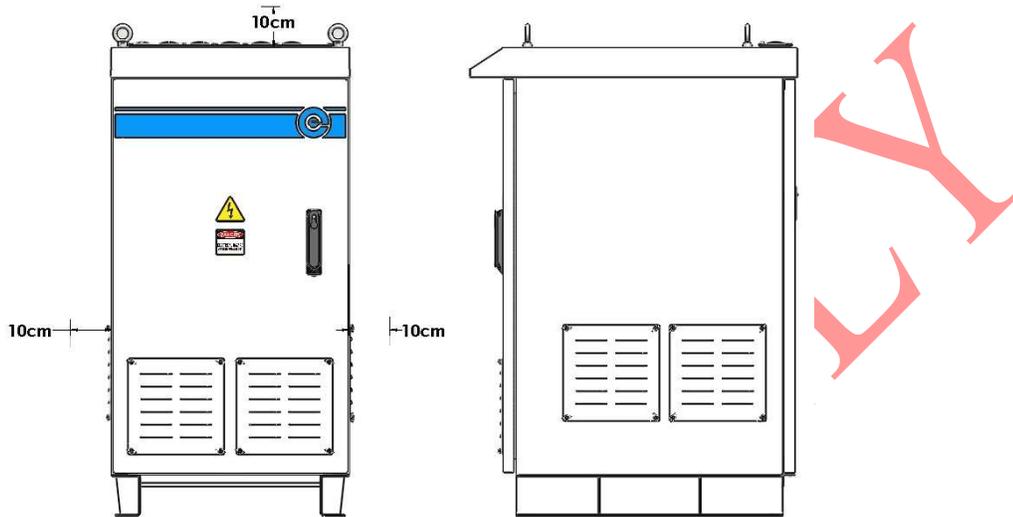


OFF Position



- STEP 5. Move unit into final position. Mark out the floor mounted fixings, drill hole for the Lag screw with expansion shield. Tighten the screw to fix unit into positions

1. Ensure the minimum spacing required for the rack for proper ventilation.



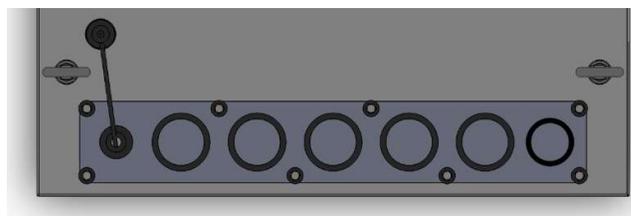
**STEP 6. FIELD INSTALLATION**

- A. Locate the magnetic mount antenna by removing the protective foam on top of the rack. Install the included stick antenna by screwing it into the threaded end of the magnetic mount in clockwise direction as shown.**



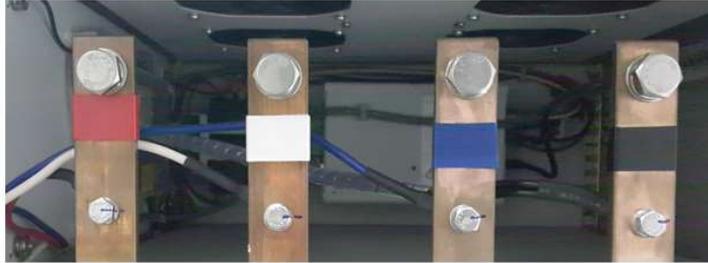
- B. Line and Neutral Wire Entry (Top)**

For wire entry:



Remove the Hole plugs of the Aluminium Gland Plate to run the wire through (EDGE standard rubber grommet). Antenna /Wire already routed when delivered.

**C. Connecting the Wires to the Busbars.**



Locate and untighten the M10 bolt pre-installed at the bottom of the busbar. This bolt shall be used to connect your Line and Neutral wires with crimped lug.

Once installed, tighten the bolt torque @25Nm.



Prepare wire and terminate with crimped terminal lug as shown to fit M10 bolt screw. Use the included M10 hardware to fix to the busbar.

**D. Connecting Earth Wire on the Ground strip.**



Earth Wire

Ground strip

Install the Earth wire with the Terminal Lug on the specified M10 nut location as shown

Tightening Torque: 25 N-m



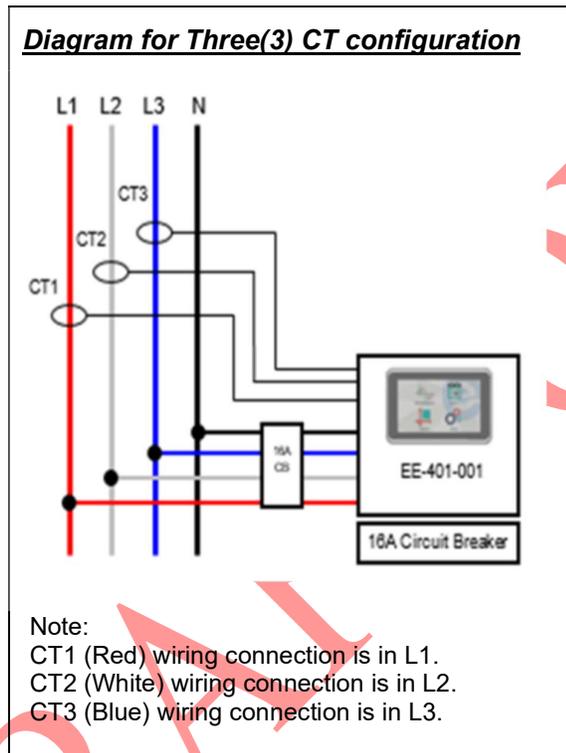
**RED BAND BUSBAR = L1  
WHITE BAND BUSBAR = L2  
BLUE BAND BUSBAR = L3  
BLACK BAND BUSBAR = NEUTRAL  
CONNECT EARTH WIRE TO THE METAL GROUND STRIP  
CAUTION: NEUTRAL CONNECTION NEEDED FOR  
AUXILIARY POWER**

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1. For three (3) CT setup, see page 40.

**IMPORTANT: POSITION AND DIRECTION OF THE CT MUST BE CORRECT. SEE DRAWING BELOW.**

(Please include the direction of CT in the drawing)



**CAUTION**

1. For wire colour coding, follow the country standard.
2. USB port is not designed to be used as a charging port, this is only for wireless modem.

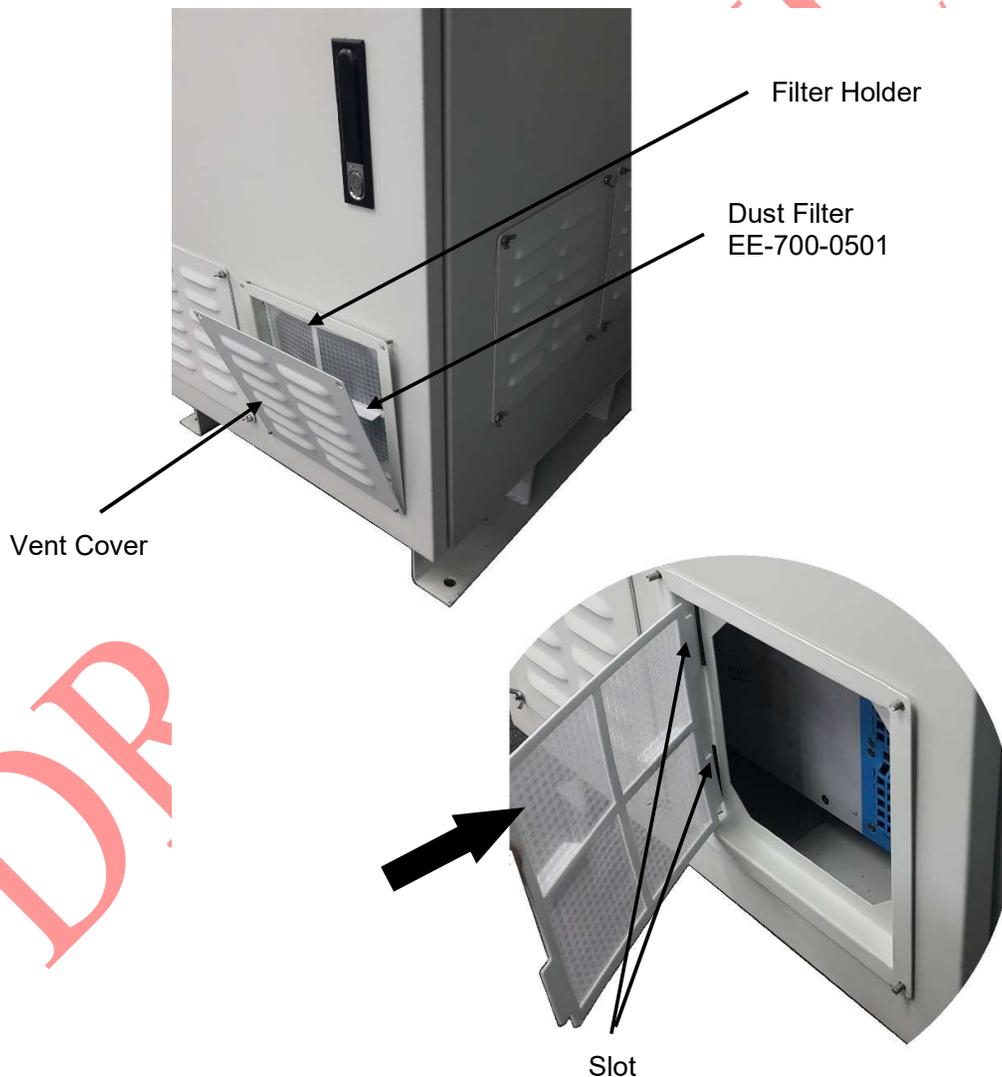
**IMPORTANT:** If the Neutral is not connected or disconnects at any time, the control module will be operating but there will be no power factor correction because the modules will not be working. The power module will be disabled and the module indicator LED lights will be extinguished.

STEP 8. Wiring Check - Perform visual inspections of all wiring to ensure cables are undamaged and adequately protected. Ensure all fixings are secure before proceeding.

STEP 9. Checking number of AIR FILTER before Commissioning - Filters are pre-installed

**Important: Cleaning the Filter every 1 month or regular cleaning depend on the environment**

1. Remove the vent covers from the panel by unscrewing the 4 pcs wingnuts.



2. Check the Air Filter EE-700-0501 installed into the slot as shown

3. Return the 4 pcs. wingnut and make sure to tighten properly.

4. Repeat the process on other vent covers. Note: Total of 6 vent in 1 rack

**Note: Total filter installed are 6 pcs. if there a filter missing pls. call EDGE representative.**

STEP 10. Install polycarbonate

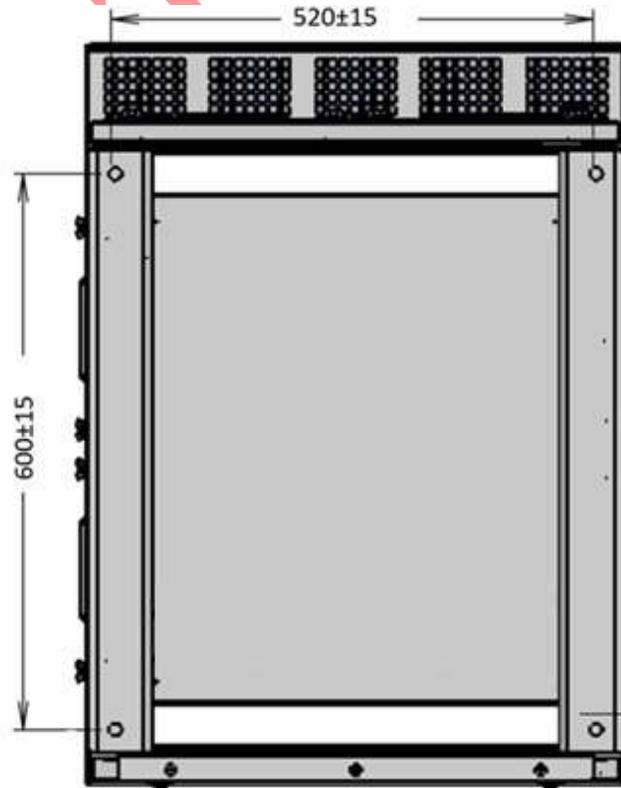


STEP 11. Optional – install Optional Breaker Box



Note: Details of Optional Accessories PowerSave Breaker Box see Appendix F

STEP 12. Bolt on the floor. Recommended bolt size and tools needed



Use Anka Screw Screw-In Anchors (AS12075), refer to manufacturer regarding the hole size and its depth.



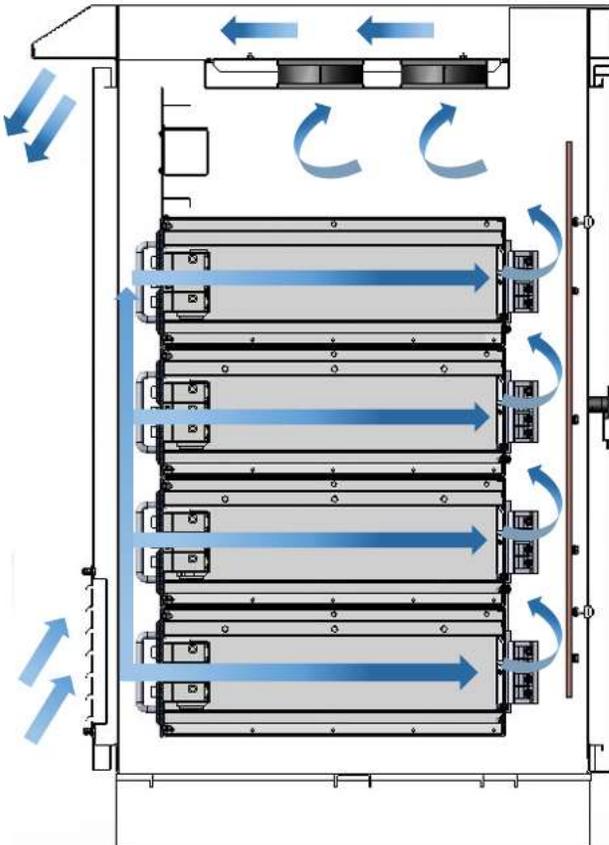
**CAUTION: PRODUCT VENTILATION SHOULD NOT BE OBSTRUCTED AND OBJECTS SHOULD NOT BE PLACED ON OR IN THE UNIT. 10cm SPACING AROUND THE UNIT SHOULD BE MAINTAINED AT ALL TIMES.**

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**Cleaning the Filter every 1 month or regular cleaning depend on the environment**

1. Removed the filters
2. Place the filter on running water without high pressure to remove the dirt. Note: filter can be damaged on high pressure water.
3. Use your hands and gently remove the dirt. Note: Don't use detergent, or any chemical which can be damaged filter.
4. Drying the filters by exposing to air.
5. After the filter is completely dry. Return the filters

**VI. Cooling and Air Flow Requirement**



**As per IEC 60831-1, the ambient temperature around the capacitors is ambient inside the PowerSave Power Module and not Outside or inside the PowerSave Rack**

PowerSave Rack air flow illustrated on the cross-section picture.

The Rack temperature difference from outside bottom inlet and top exhaust will be maintain by lower than 10°C. To meet this requirement, the PowerSave rack and PowerSave Power Module Fan design for a minimum air flow of \_\_\_\_m<sup>3</sup>/H inside the rack.

See Item II. A For PowerSave Rack Operating Temperature Requirement

See Item IV. Step 5. For the minimum spacing requirement

See Item IV. Step 5. For the Filter Installation

See Item V. For Cleaning the filter