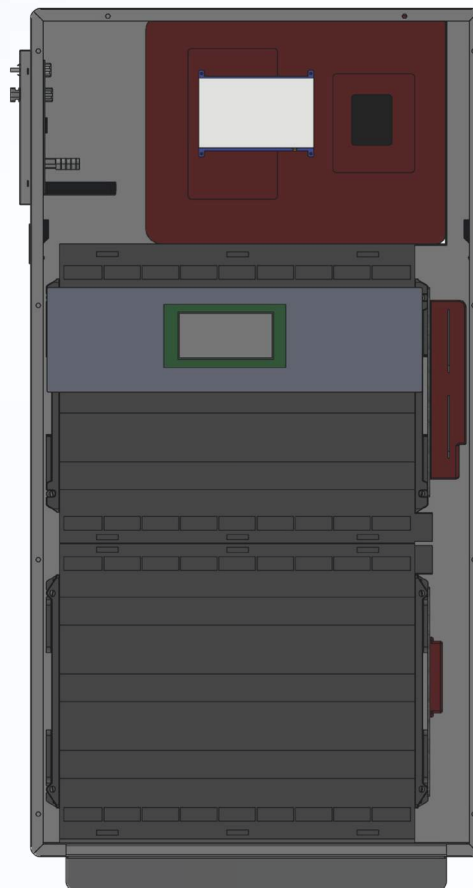




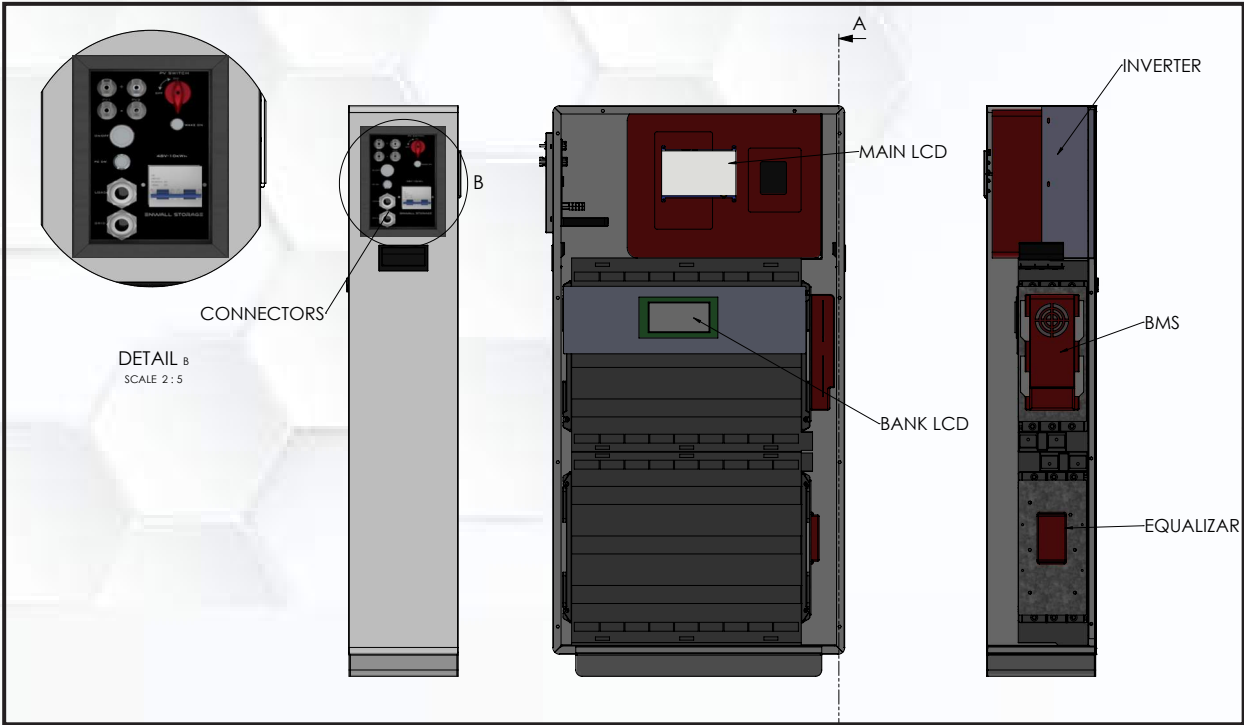
ENWALL  
TECHNICAL DATA SHEET  
ENW-8k-48-5k-X-X-X-X-1V0-GEN1  
VERSION 1.0 | REVISION 0  
RELEASE DATE: 19 MAY 2024

## INTRODUCTION:

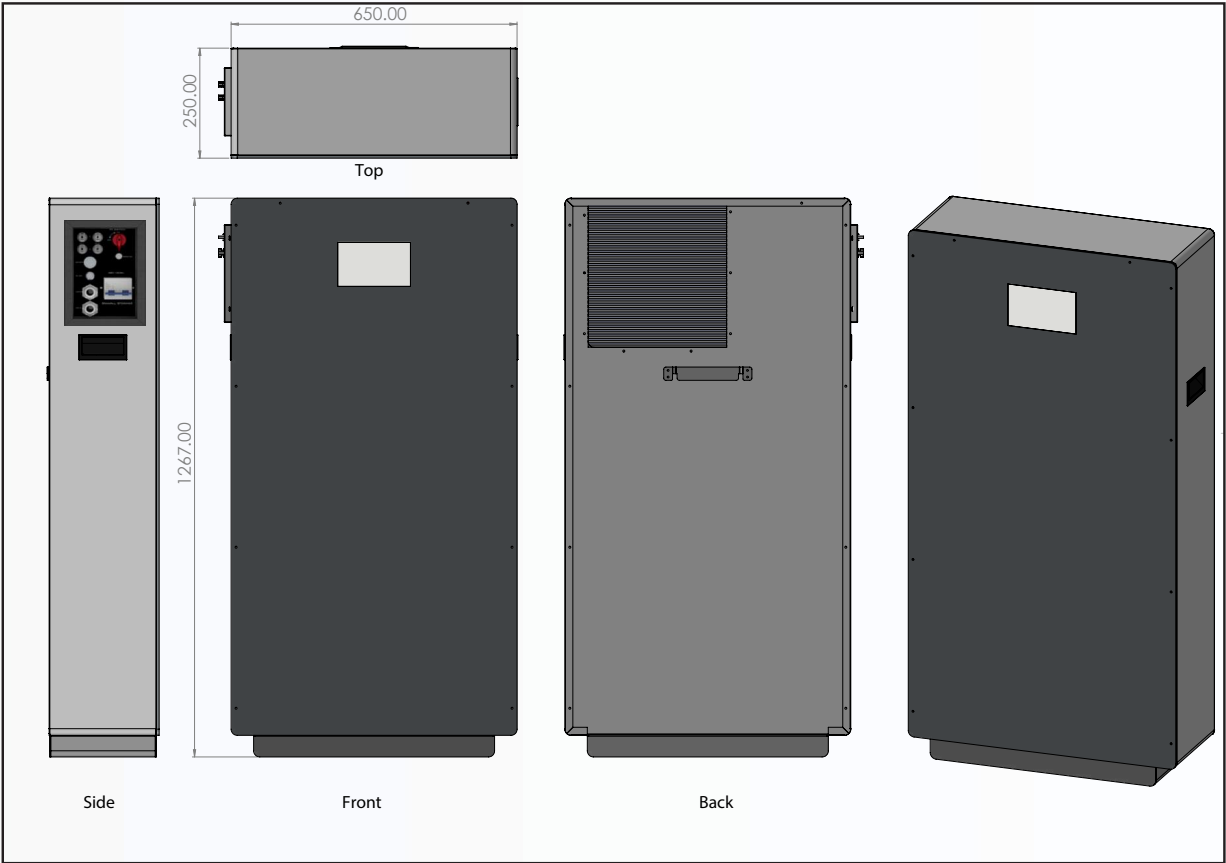
ENWALL is Enercap's latest integrated energy storage system designed for the home and light commercial facilities. ENWALL comes with Enercap's patent ENCAP and ENSERVER cutting-edge technology. The ENWALL system can be charged by the grid, solar, wind, or genset in either standalone, standalone grid-tied, standalone off-grid, grid-tied hybrid, or off-grid hybrid mode. It can switch automatically between modes as the need arises. Using the safest energy storage technology, the system can operate in very high or low temperatures without the need for heating or cooling and has a very high AC and DC round trip efficiency. ENWALL has a direct connection to PV, the Grid, Wind, or GENSETS. The system will automatically detect outages, can power your home or electric vehicle, and will charge as soon as any of the inputs is available. ENWALL will store energy for long periods without depletion of energy through idle discharge or thermal runaway of energy through idle discharge or thermal runaway.

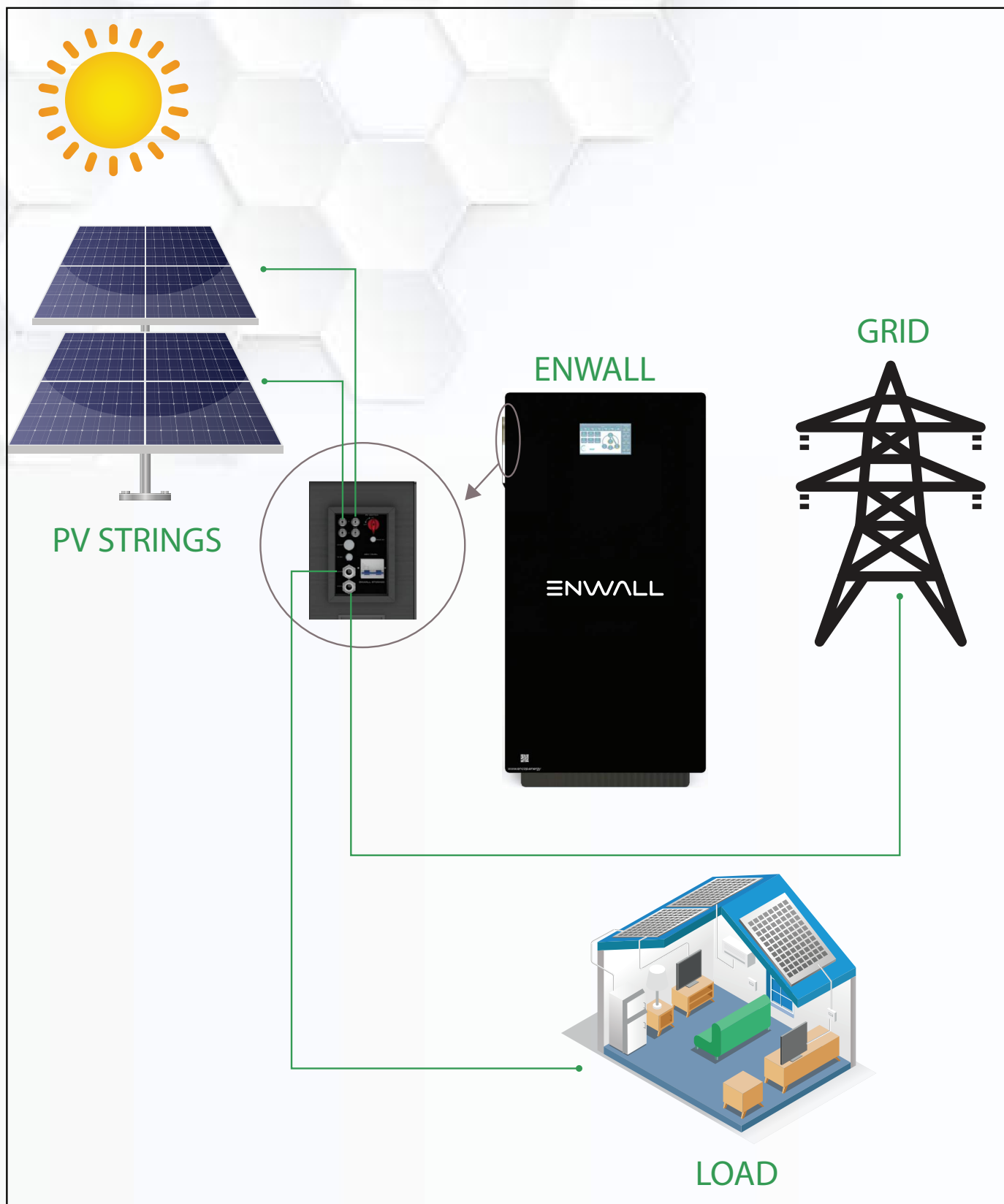


ENWALL LAYOUT:



ENWALL MECHANICAL DIMENSIONS:



**ENWALL ARCHITECTURE:**

**ENWALL SPECIFICATIONS:****BATTERY PERFORMANCE SPECIFICATIONS**

|                              |                                                        |
|------------------------------|--------------------------------------------------------|
| DC Energy                    | 8kWh                                                   |
| Voltage Range                | 43.2Vdc to 60.8Vdc                                     |
| DC Voltage (Nominal)         | 48Vdc                                                  |
| Internal Resistance          | < 4 mili Ohms                                          |
| Technology                   | Encapsulated Cell                                      |
| Nominal Cell Voltage         | 6.4 ~6.6Vdc / Cell (Encapsulated) 1/2 + 0.12V Envelope |
| Maximum Charge Current       | 108A                                                   |
| Maximum Discharge Current    | 108A                                                   |
| Charging Curve               | 3 Stages / Equalization (CC/CP/VP)                     |
| Charging Strategy for Module | Self-adaption to BMS                                   |

**PV STRING INPUT DATA**

|                                 |                  |
|---------------------------------|------------------|
| Max. DC Input Power(W)          | 6500W            |
| PV Input Voltage(V)             | 370V (125V~500V) |
| MPPT Range(V)                   | 150~425V         |
| Full Load DC Voltage Range      | 300~425V         |
| Start-up Voltage(V)             | 125V             |
| PV Input Current(A)             | 26A              |
| Max.PV Isc(A)                   | 34A              |
| No. of MPPT Trackers            | 2                |
| No. of Strings Per MPPT Tracker | 2                |

**AC OUTPUT DATA**

|                                  |                                    |
|----------------------------------|------------------------------------|
| Rated AC Output and UPS Power(W) | 5000 W                             |
| Max. AC Output Power(W)          | 5500 VA                            |
| Peak Power(off grid)             | 2 times of rated power, 10 S       |
| Rated AC Input/Output Current(A) | 22.7/21.7A                         |
| Max AC Input/Output Current(A)   | 25/23.9A                           |
| AC Output Rated Current(A)       | 35A                                |
| Output Frequency and Voltage     | 50/60Hz; 220/230Vac (single phase) |
| Grid Type                        | Single Phase                       |
| Power Factor                     | 0.8 leading to 0.8 lagging         |
| Total Harmonic Distortion (THD)  | <3% (of nominal power)             |
| DC current injection             | <0.5%LN                            |

**EFFICIENCY**

|                 |        |
|-----------------|--------|
| Max. Efficiency | 97.60% |
| MPPT Efficiency | >99%   |

**PROTECTION**

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| Battery Short Circuit Protection | Electronic Switching,<br>Terminal Cut-off |
| Battery Over/under voltage       | Electronic Switching,<br>Terminal Cut-off |
| Battery Over Current             | Electronic Switching,<br>Terminal Cut-off |
| Battery Over temperature         | Electronic Switching,<br>Terminal Cut-off |



|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Integrated Equipment Protection | DC Polarity Reverse Connection Protection,<br>AC Output Over Current Protection<br>AC Output Over Voltage Protection,<br>AC Output Short Circuit Protection,<br>Thermal Protection<br>DC Terminal Insulation Impedance Monitoring,<br>DC Component Monitoring,<br>Ground Fault Current Monitoring<br>Power Network Monitoring, Island Protection Monitoring,<br>Earth Fault Detection,<br>DC Input Switch Over voltage Load Drop Protection,<br>Residual Current (RCD) Detection,<br>Surge protection level |
| Surge Protection Level          | TYPE II(DC),TYPE II(AC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>SMART FEATURES</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| OLED Display                    | Monitor & Configure Module                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Communication                   | WIFI / CANBUS / Bluetooth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Alarm                           | Buzzer alarm in the event of Over/under-Voltage, Over-Current, Over Temperature                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>EN-CONNECT SOFTWARE</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Module Monitoring               | Total Voltage, Individual Cell Voltages,<br>Current, Temperatures,<br>Instantaneous Power, SOC and<br>Energy Consumed                                                                                                                                                                                                                                                                                                                                                                                       |

**ENVIRONMENTAL SPECIFICATIONS**

|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| Cell Operating Temperature | -30°C~ +70°C                                          |
| Operating Humidity         | Non-Condensing                                        |
| Warehousing                | Can be stored at any SOC without affecting cycle life |

**MECHANICAL SPECIFICATIONS**

|                           |                  |
|---------------------------|------------------|
| Dimensions (W x H x D) mm | 659 x 1267 x 250 |
| Weight (Kg)               | 125              |
| Module Casing Material    | GI Powdered      |
| Installation Style        | Wall Mounted     |



# ENWALL SCHEMATIC DIAGRAM

