

C&I Energy Storage Solutions

## OUTDOOR DC ENERGY STORAGE CABINET



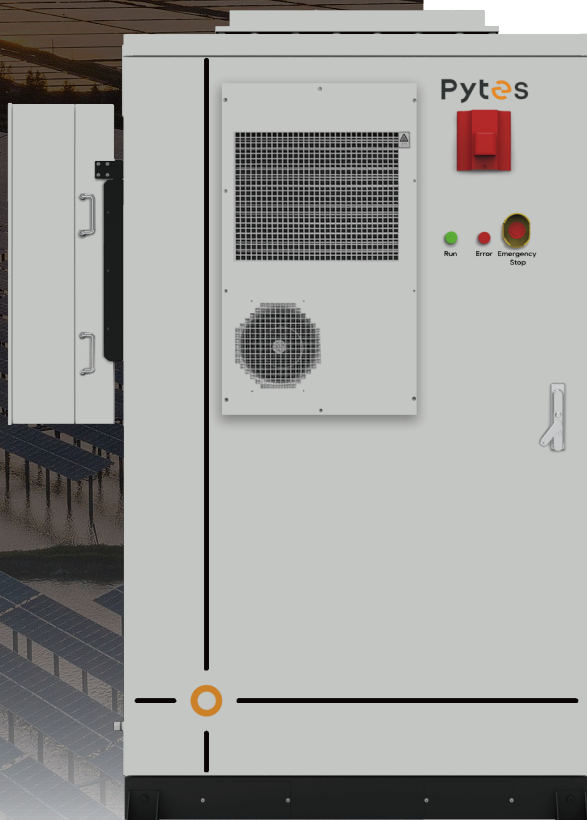
Flexible  
Configuration



Outdoor  
Rating



Active Fire  
Protection



## HV48100 SE



### Safe

- Tier 1 automotive-grade LFP cells
- BMS multi-level monitoring and protection
- Multi-layer active fire suppression system



### All-Weather

- Built-in module-level fans and a forced-air cooling system(HVAC) ensure efficient thermal management in high-temperature environments
- Integrated heating system ensures reliable operation in low-temperature environments
- C4-M corrosion resistance
- IP55 rating for indoor and outdoor installation



### Scalable

- Modular design enables seamless scaling to MWh-level capacity - Ideal for commercial and industrial-scale applications



### Smart

- Remote monitoring with PYTES Battery Cloud



### Flexible

- Multiple battery string configurations support a wide range of operating voltages
- Universal mounting structure accommodates various inverter models

#### Applications



Hotel



Data  
Center



Agriculture



Utilities



C & I Facilities



VPP

## Battery Module (BMU)

|                   |                              |
|-------------------|------------------------------|
| Chemistry         | Lithium Iron Phosphate (LFP) |
| Nominal Energy    | 5.12 kWh                     |
| Nominal Voltage   | 51.2 V                       |
| Operating Voltage | 47.5 V ~ 57.6 V              |
| Nominal Capacity  | 100 Ah                       |
| Weight            | 99 lb / 45 kg                |

## System

|                                         |                 |                 |                   |                 |                   |                 |                 |
|-----------------------------------------|-----------------|-----------------|-------------------|-----------------|-------------------|-----------------|-----------------|
| BMU Internal Configuration <sup>1</sup> | 5S2P            | 6S2P            | 7S2P              | 12S1P           | 13S1P             | 14S1P           | 15S1P           |
| Rated Energy                            | 51.20 kWh       | 61.44 kWh       | 71.68 kWh         | 6144 kWh        | 66.56 kWh         | 71.68 kWh       | 76.80 kWh       |
| Rated Power                             | 25.60 kW        | 30.72 kW        | 35.84 kW          | 30.72 kW        | 33.28 kW          | 35.84 kW        | 38.40 kW        |
| Operating Voltage                       | 237.5 V ~ 288 V | 285 V ~ 345.6 V | 332.5 V ~ 403.2 V | 570 V ~ 691.2 V | 617.5 V ~ 748.8 V | 665 V ~ 806.4 V | 712.5 V ~ 864 V |
| Charge/Discharge Current                | 50 A*2          |                 |                   | 50 A            |                   |                 |                 |

## General

|                           |                                                          |                   |                   |                  |                   |                   |                   |
|---------------------------|----------------------------------------------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|
| Dimensions (W x D x H)    | 43 × 47 × 79 inch / 1100 × 1193 × 2015 mm                |                   |                   |                  |                   |                   |                   |
| Approximate weight        | 2029 lb / 920 kg                                         | 2234 lb / 1013 kg | 2439 lb / 1106 kg | 2203 lb / 999 kg | 2306 lb / 1046 kg | 2408 lb / 1092 kg | 2511 lb / 1139 kg |
| Ingress Protection Rating | IP55                                                     |                   |                   |                  |                   |                   |                   |
| Anti-Corrosion Grade      | C4-M                                                     |                   |                   |                  |                   |                   |                   |
| Cycle Life <sup>2</sup>   | 6000 cycles                                              |                   |                   |                  |                   |                   |                   |
| Warranty <sup>3</sup>     | System: 3 Years <sup>4</sup><br>Battery module: 10 Years |                   |                   |                  |                   |                   |                   |

## Battery Module Internal Heating Film

|                     |                                           |
|---------------------|-------------------------------------------|
| Rated Input Voltage | 110Vac @ 60 Hz                            |
| Rated Power         | 176 W                                     |
| Control Temperature | On: ≤50 °F / 10 °C<br>Off: ≥59 °F / 15 °C |

## Environmental

|                       |                                 |
|-----------------------|---------------------------------|
| Operating Temperature | -4 °F ~ 131 °F / -20 °C ~ 55 °C |
| Operating Altitude    | ≤ 9843 ft / 3000 m              |
| Relative Humidity     | 5% ~ 80 % non-condensing        |

## Fire Suppression System

|                                    |                                                                                         |
|------------------------------------|-----------------------------------------------------------------------------------------|
| Level 1: Detection & Ventilation   | Hazardous gas detection activates ventilation system                                    |
| Level 2: Aerosol Suppression       | Heat and smoke detection activates aerosol fire suppression system                      |
| Level 3: Pressure Relief           | The explosion relief valve opens automatically if internal pressure exceeds safe limits |
| Level 4: Fire Hose Connection Port | Equipped with a fire hose connection port for firefighter hose attachment               |

## HVAC

|                           |              |
|---------------------------|--------------|
| Max. Cooling Capacity     | 2300 W (L35) |
| Max. Heating Capacity     | 1050 W       |
| Ingress Protection Rating | IP55         |

## Compliance

|                 |                                                 |
|-----------------|-------------------------------------------------|
| Certifications  | UL 9540 Ed.3 (2023), UL 9540A, UL 1973, UN 38.3 |
| Code Compliance | NFPA 68 / 69 / 855                              |
| Listings        | CEC, SGIP, OGPe                                 |

<sup>1</sup> Available Configuration: Number of installable BMUs per Battery Control Unit (BCU) ranges from 3 to 15. Voltage Range: 47.5 V x (3 ~ 15) ~ 57.6 V x (3 ~ 15). The HV48100SE has 16 available positions for BMU installation. The maximum number of BMUs per HV48100 SE cabinet is 15S1P / 7S2P.

<sup>2</sup> Cycle life conditions: 25 °C, 50% DOD, 0.5C @ 90% DOD, ret @ 70% (EOL).

<sup>3</sup> Maximum warranty period is 10 years (excludes the BMU and BCU), 10 years or 6000 cycles for the battery (whichever comes first).

<sup>4</sup> A standard 10-year warranty is not available for purchase.

