

## TECHNICAL DATA SHEET

Part Number: KWL-INV-2250-24-D-1.5C-M-SD-A-X-X-I | Version Date: November 2020



# INVEREX

## POWER WALL

The INVEREX Power Bank is supercapacitor-based wall mount storage that uses supercapacitors as storage cells instead of chemical cells. It has balancing, control and charge retention algorithms that control the operation of the supercapacitor-based Modules, making INVEREX Power Bank a safe, efficient and effective alternative to chemical batteries wherever chemical batteries are deployed.

### PERFORMANCE SPECIFICATIONS

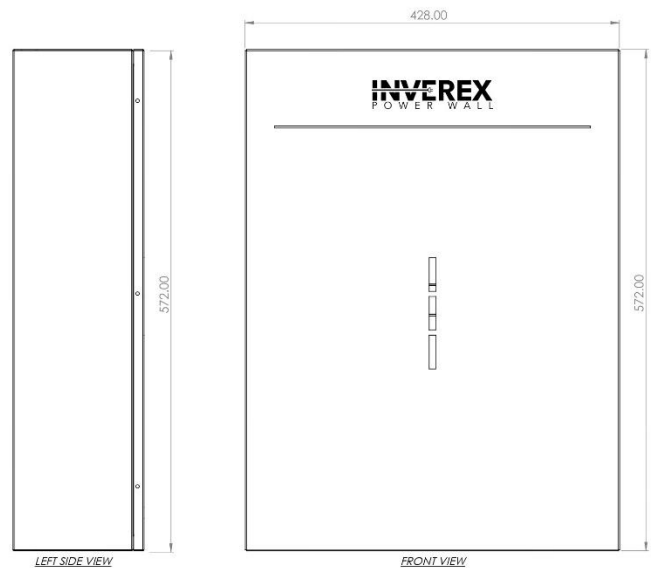
|                      |                   |
|----------------------|-------------------|
| DC Energy            | 2250WH            |
| DC Voltage (Nominal) | 24V <sub>dc</sub> |
| Technology           | Supercapacitors   |

### CHARGE SPECIFICATIONS

|                                  |   |
|----------------------------------|---|
| Maximum Charge Current (5 sec)   | 560A (6C)   |
| Recommended Charge Current       | 140A (1.5C)   |
| Full Charge Voltage              | 28 V <sub>dc</sub><br>(automatic)                               |
| Maximum Charge Voltage Tolerance | 30V <sub>dc</sub><br>(automatically adapts to charger settings) |

### DISCHARGE SPECIFICATIONS

|  |                   |
|--|-------------------|
| Maximum Discharge Current (5 sec)      | 560A (6C)         |
| Maximum Discharge Current (Continuous) | 140A (1.5C)       |
| Depth of Discharge Voltage @ 0.5C      | 20V <sub>dc</sub> |



### MECHANICAL SPECIFICATIONS

|                           |                     |
|---------------------------|---------------------|
| Dimensions (W x H x D) mm | 428 x 572 x 150     |
| Weight (Kg)               | 41                  |
| Module Casing Material    | GI Powdered         |
| Terminal Type             | Anderson Connectors |
| Mounting Options          | Wall Mount          |
| Enclosure                 | IP65                |

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### SMART FEATURES

|                                |   |
|--------------------------------|---|
| Communication and Connectivity | WIFI & Bluetooth  |
| Alarm                          | LED and Buzzer alarm in the event of Over/Under-Voltage, Over-Current, Over Temperature |

### SIRIUS VIEW FOR INVEREX APP

|                   |   |
|-------------------|---|
| Module Monitoring | Total Cell Voltage, Individual Cell Voltages, Current, Temperatures, Instantaneous Power, Circuit Breaker Status, SOC and Energy Consumed |
|-------------------|---|

### SAFETY PERFORMANCE

|                            |   |
|----------------------------|---|
| Over/under voltage         | Hardware protection, Module shut down       |
| Over Current               | Hardware protection, Module shut down       |
| Over temperature           | Hardware protection, Module shut down       |
| Short Circuit Protection   | 10KA, Hardware Protection, Terminal Cut-off |
| Additional Safety          | 125A 2P Mechanical Actuated Circuit Breaker |
| Reverse Voltage Protection | Hardware Protection, the buzzer alarms      |

### ENVIRONMENTAL SPECIFICATIONS

|   |                |
|---|----------------|
| Cell Operating Temperature <sup>1</sup> | -10°C to 55°C  |
| Operating Humidity                      | Non-Condensing |

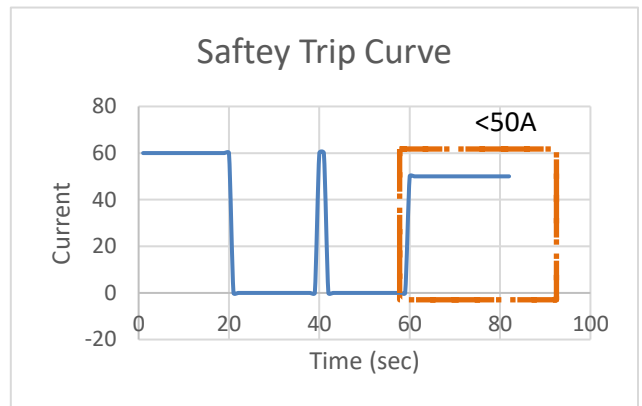
### MODULE SERVICE LIFE

|  |   |
|--|---|
| Projected Cycle Life <sup>2,3</sup>    | 12000 cycles  |
| Projected Calendar Life <sup>3,4</sup> | 8 years   |
| Shelf Life <sup>5</sup>                | 10 years  |
| Warehousing                            | Can be stored at any SOC without affecting cycle life |

### COMPLIANCE INFORMATION<sup>6</sup>

EN55032:2015, EN55024:2010,  
EN61000-4-2:2009, EN61000  
EN61000:2008+A2:2010

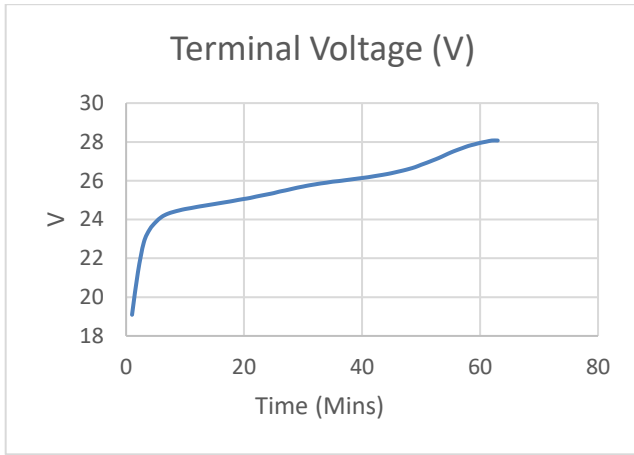
### SAFETY TRIP CURVE



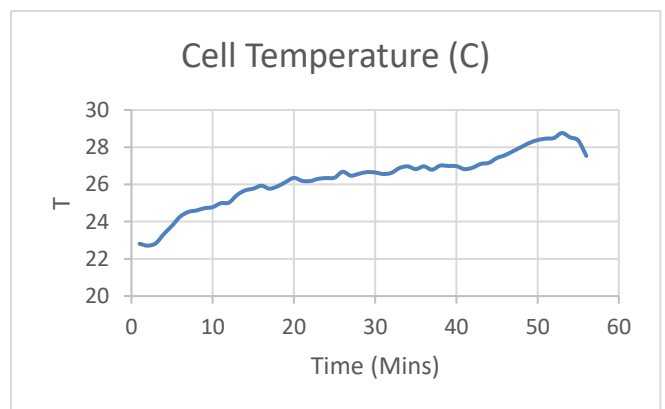
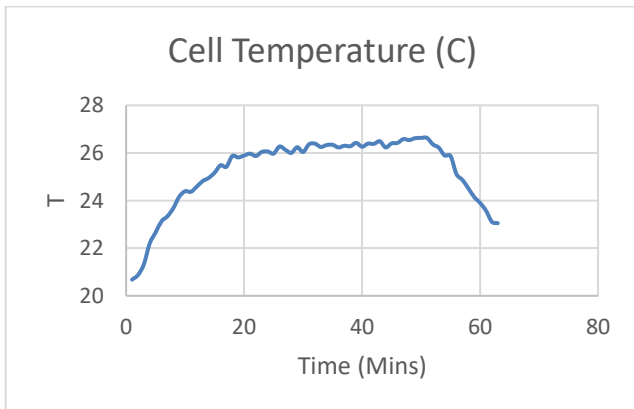
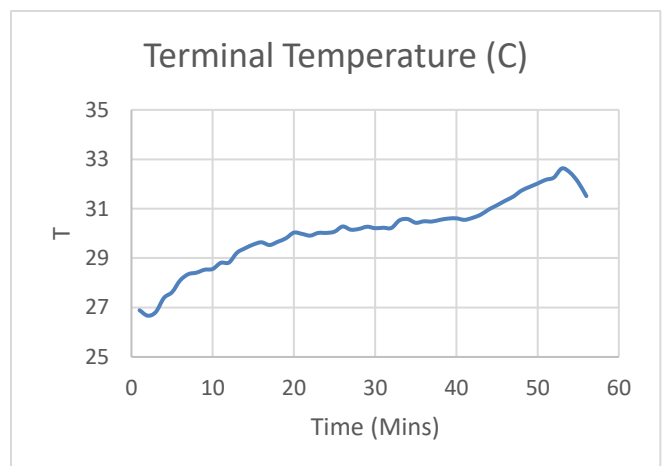
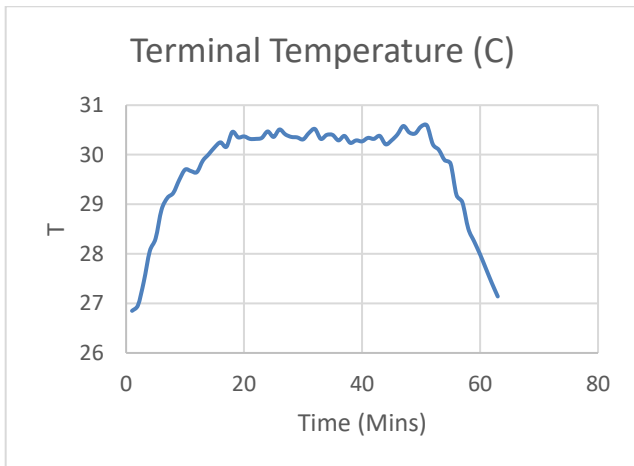
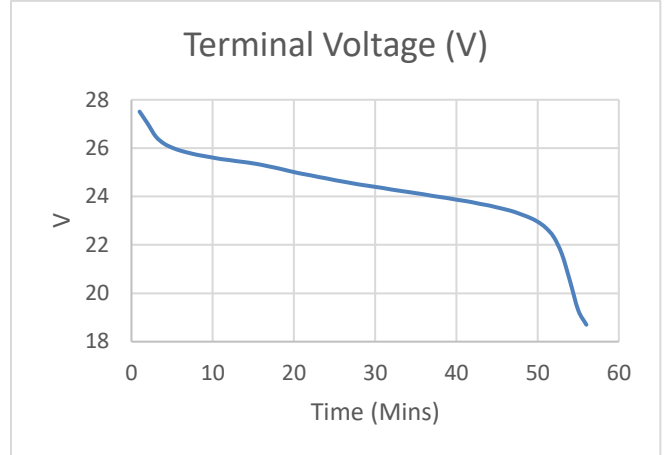
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### CHARGE SPECIFICATIONS



### DISCHARGE SPECIFICATIONS





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<sup>1</sup>The temperature range indicates the range in which the supercapacitor cells can operate. The performance of the cells may vary if they are continuously operated outside a temperature range of -10°C to 55°C, and/or at C-rates higher than the maximum charge/discharge rate specified in this spec sheet. The operating temperature range of the Module varies based on the application. If the Module is to be operated continuously outside a temperature range of -10°C to 55°C, and/or at C-rates higher than the maximum charge/discharge rate specified in the spec sheet, please consult Kilowatt Labs or its Reseller prior to deploying.

<sup>2</sup>Projected life of supercapacitor cells. Cycle life will vary if cycled more than 4 times a day.

<sup>3</sup>Additional terms and conditions, including a limited warranty, will apply at the time of purchase.

<sup>4</sup>Projected Calendar life of supercapacitor cells from the date of first operation.

<sup>5</sup>Shelf life is the life of the Module (in years) from the date it is manufactured to the time it is first operated.

<sup>6</sup>CE certification is completed for supercapacitor cells. Product dimensions are for reference only unless otherwise identified and may change without notice. For critical applications, please contact your Reseller.

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