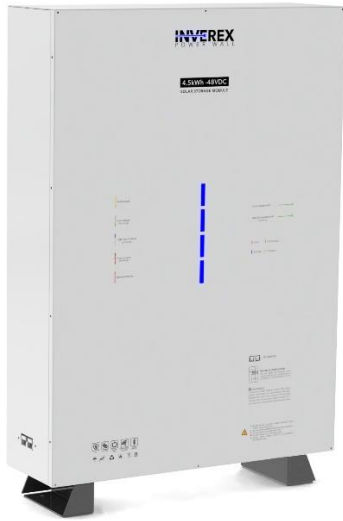


TECHNICAL DATA SHEET

Part Number: KWL-INV-4500-48-E-1.2C-TM-SD-A-X-X-I | Version Date: January 2021



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

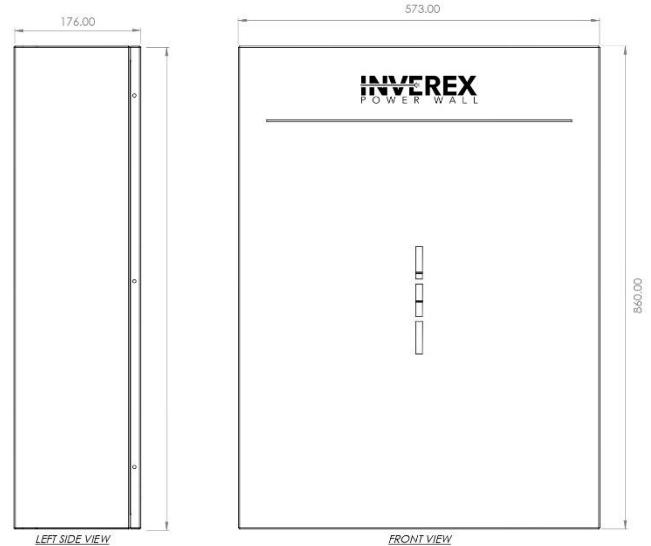
DC Energy	4500WH
DC Voltage (Nominal)	48V _{dc}
Technology	Supercapacitors

CHARGE SPECIFICATIONS

Maximum Charge Current (5 sec)	690A (6C)
Recommended Charge Current	115A (1.2C)
Full Charge Voltage	56 V _{dc} (automatic)
Maximum Charge Voltage Tolerance	56V _{dc} (automatically adapts to charger settings)

DISCHARGE SPECIFICATIONS

Maximum Discharge Current (5 sec)	690A (6C)
Maximum Discharge Current (Continuous)	115A (1.2C)
Depth of Discharge Voltage @ 0.5C	40V _{dc}



MECHANICAL SPECIFICATIONS

Dimensions (W x H x D) mm	573 x 860 x 176
Weight (Kg)	75
Module Casing Material	GI Powdered
Terminal Type	Anderson Connectors
Mounting Options	Stand Beside Wall
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, Current, Temperatures, Instantaneous Power, Circuit Breaker Status, SOC and Energy Consumed
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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 ¹	-10°C to 55°C
Operating Humidity	Non-Condensing

MODULE SERVICE LIFE

Projected Cycle Life ^{2,3}	12000 cycles
Projected Calendar Life ^{3,4}	8 years
Shelf Life ⁵	10 years
Warehousing	Can be stored at any SOC without affecting cycle life

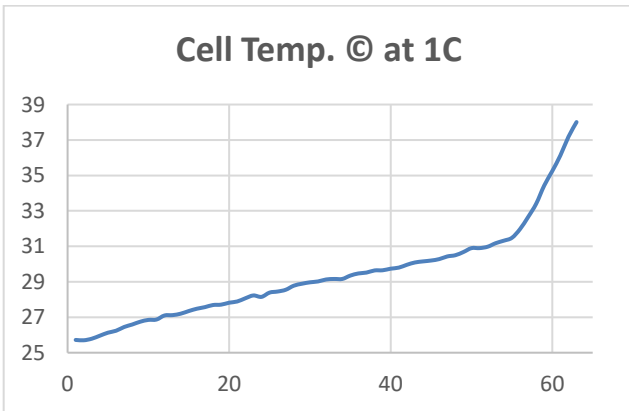
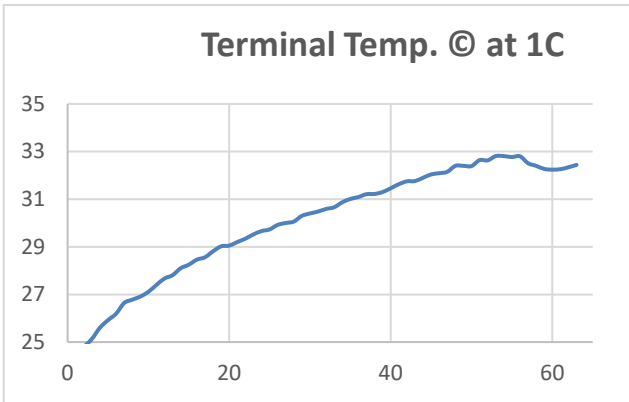
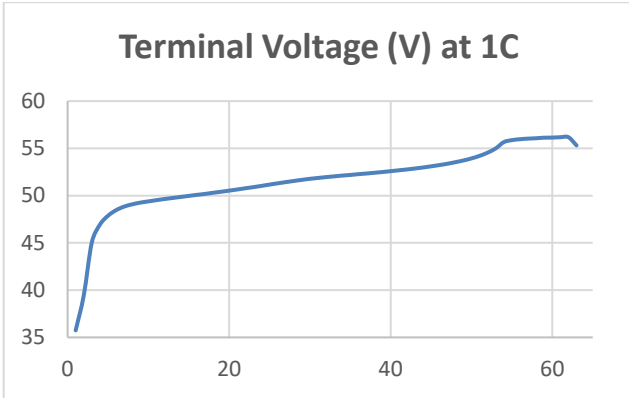
COMPLIANCE INFORMATION⁶

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

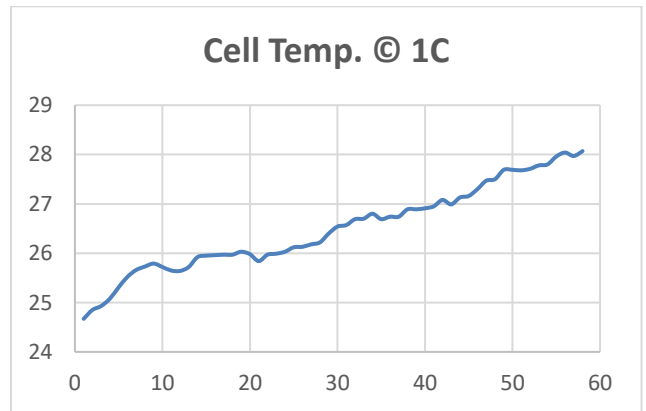
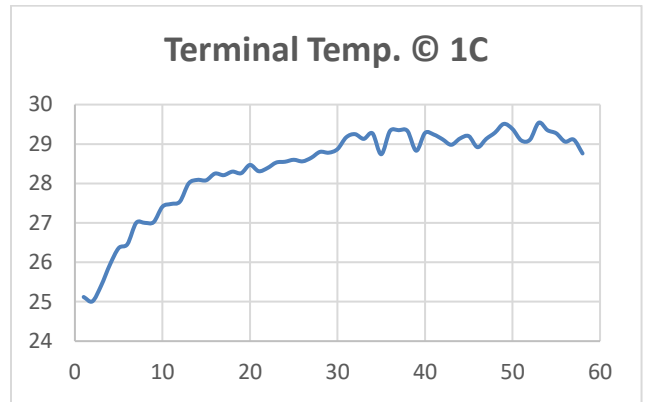
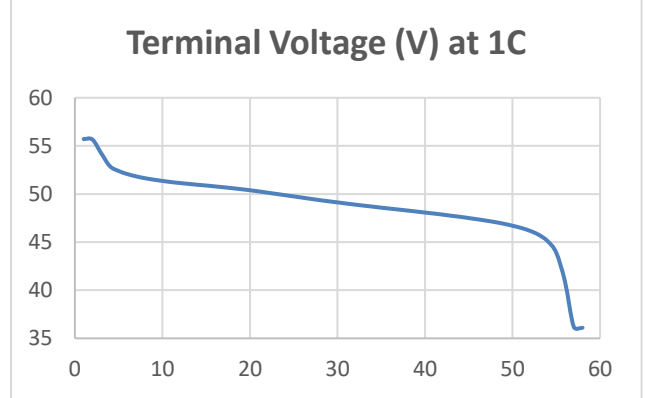
TECHNICAL DATA SHEET

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CHARGE SPECIFICATIONS



DISCHARGE SPECIFICATIONS



TECHNICAL DATA SHEET

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¹The 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.

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

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

⁴Projected Calendar life of supercapacitor cells from the date of first operation.

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

⁶CE 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.
