

ENCAP

BEYOND BATTERIES

TECHNICAL DATA SHEET

7.1KWH-48V

EN-7.1k-48-1C-X-X-X-PIB_IVO_GEN1

VERSION 1 | REVISION 0 | RELEASE DATE: 14th May 24



EFFICIENT

- Highly Efficient: > 95% RTE (Round Trip Efficiency)
- 100% DOD (Depth of Discharge)
- 500,000 Cell Life Cycles



SAFE & RELIABLE

- Wide Operating Temperature Range
- Deployable in Various Environments including High Altitudes
- No Thermal Runaway Risk

PERFORMANCE SPECIFICATIONS

DC Energy	7.1kWh
Voltage Range	43.2Vdc to 60.8Vdc
DC Voltage (Nominal)	48Vdc
Internal Resistance	< 4 mili Ohms

CELL SPECIFICATIONS

Technology	Encapsulated Cell
Nominal Cell Voltage	6.4 ~6.6Vdc / Cell (Encapsulated) 1/2 + 0.12V Envelope

CHARGE CHARACTERISTICS

Maximum Continuous Charge Current	150A (~1C)
Charging Method	CC/CP/VP

DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	150A (~1C)
Discharging Method	CC/CP/VP

EN-CONNECT SOFTWARE²

Module Monitoring ²	Total Voltage, Individual Cell Voltages, Current, Temperatures, SOC and Energy Consumed
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MODULE ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range	-30°C~ +70°C
Operating Humidity	Non-Condensing



Front View



Isometric View



ENCONTROL²

MECHANICAL SPECIFICATIONS

Dimensions ¹ (W x H x D) mm	482 x 134 x 568
Weight (kg)	43
Module Casing Material	GI Powdered
Terminal Type	300A Terminal Post

SMART FEATURES

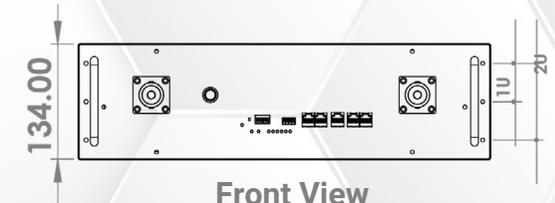
OLED Display (With Encontrol) ²	Monitor Module
Communication	CANBUS , RS232, RS485
Alarm ²	Buzzer alarm in the event of Over/under-Voltage, Over-Current, Over Temperature
Dry Contacts Output	Programmable Dry Contacts

SAFETY PERFORMANCE

Short Circuit Protection	Electronic Switching, Terminal Cut-off
Over/under Voltage	Electronic Switching, Terminal Cut-off
Over Current	Electronic Switching, Terminal Cut-off
Over Temperature	Electronic Switching, Terminal Cut-off

SERVICE LIFE

Cells Projected Cycle Life ³	500,000 cycles
Cells Projected Calendar Life ⁴	25 years



Module Projected Shelf Life ⁵	10 years
Warehousing	Can be stored at any SOC without affecting cycle life

PRECAUTIONS

Alarm	In case of alarm, immediately rectify/attend to the cause of the alarm.
Physical Damage	In case the Module is physically damaged due to any event, do not install and energize the Module under any circumstances and contact your Reseller or After Sales Support.
Short Circuit	Ensure precautions to prevent short-circuit under all circumstances.
Galvanic Isolation	When connecting to external devices ensure that galvanic isolation of the external device(s) does not exceed 1000V.
Series Connection	All Modules must be at 100% SOC before connecting in series. Do not Connect in series without controller.
Parallel Connection	All Modules must be at 100% SOC before connecting in parallel. There is no limit on the number of Modules that can be connected in parallel.
Series-Parallel Connection	Modules cannot be connected in series-parallel combination under any circumstance.

NOTES

¹Product Dimensions are for reference only and may change without notice.

²The ENCONTROL tool is an OLED display designed for Module monitoring. Please note SMART FEATURES are not part of the standard Streetlight Module and require separate purchase of ENCONTROL tool.

³Projected Life of encapsulated cells.

⁴Projected Calendar Life of encapsulated 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.

- Additional terms and conditions, including a limited warranty, will apply at the time of purchase.
- For critical applications, please contact your Reseller or After Sales Support.