

ENSEGA

ENSEGA MODULE

TECHNICAL DATA SHEET

2.5KWH-24V

ENS-2.5k-24-0.5C-X-X-X-X-1V0-GEN1

VERSION 1.0 | REVISION 0 | RELEASE DATE: 28th NOV 23



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	2.5kWh
Voltage Range	22Vdc to 29Vdc
DC Voltage (Nominal)	24Vdc
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	50A (0.5C)
Charging Method	CC/CP/VP

DISCHARGE SPECIFICATIONS

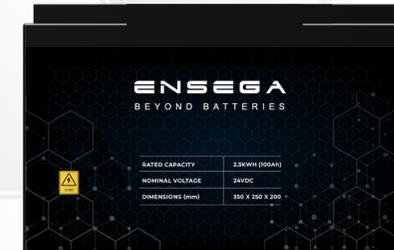
Maximum Continuous Discharge Current	50A (0.5C)
Discharging Method	CC/CP/VP

MODULE ENVIRONMENTAL SPECIFICATIONS

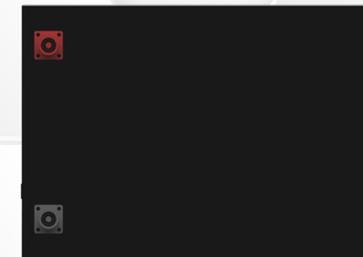
Operating Temperature Range	-20°C~ +55°C
Operating Humidity	Non-Condensing



FRONT VIEW



BACK VIEW



TOP VIEW



ISOMETRIC VIEW

MECHANICAL SPECIFICATIONS

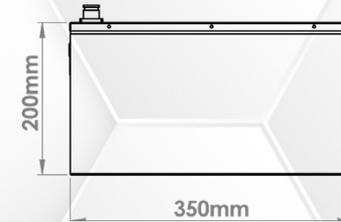
Dimensions ¹ (W x H x D) mm	350 x 200 x 250
Weight (kg)	20
Module Casing Material	GI Powdered
Terminal Type	150A Terminal Post

SMART FEATURES (WITH ENCONTROL²)

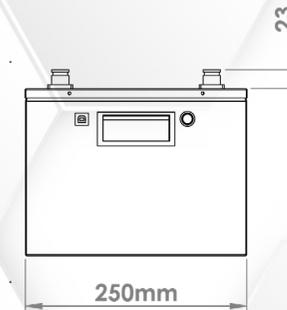
Alarm ²	Warning alarm in the event of Over/under-Voltage, Over-Current, Over Temperature
OLED Display ²	Monitoring Total Voltage, Individual Cell Voltages, Current, Temperatures, SOC and Energy Consumed
Communication ²	WIFI / Bluetooth

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



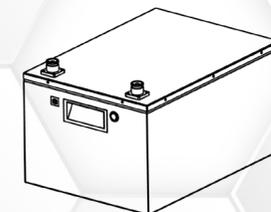
FRONT VIEW



SIDE VIEW



TOP VIEW



ISOMETRIC VIEW

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 ²	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.
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 this 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.