



ENSIRIUS MODULE
TECHNICAL DATA SHEET
PART NUMBER: EN-8k-48-1C-X-X-X-X-1V0-GEN1
VERSION 1.0 , REVISION 0
RELEASE DATE: 22nd APRIL 2024

PERFORMANCE SPECIFICATIONS

DC Energy	8000Wh
Ampacity	250Ah
Voltage Range	44Vdc to 55Vdc
DC Voltage (Nominal)	48Vdc
Internal Resistance	< 4 mili Ohms

CELL SPECIFICATIONS

Technology	Hybrid Cell
Nominal Cell Voltage	6.75 ~8.4Vdc, Equalizer 3.8Vdc

CHARGE CHARACTERISTICS

Maximum Continuous Charge Current	160A (~1C)
Charging Method	CC/CP/VP

DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	160A (~1C)
Discharging Method	CC/CP/VP

MODULE ENVIRONMENTAL SPECIFICATIONS

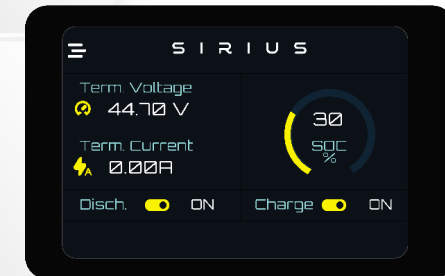
Operating Temperature Range ¹	-30°C to 70°C (See Fig.1:Temperature Specifications)
Operating Humidity	Non-Condensing

EN-CONNECT SOFTWARE

Module Monitoring	Total Voltage, Individual Cell Voltages, Current, Temperatures, SOC and Energy Consumed
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Front View



LCD View



Isometric View

MECHANICAL SPECIFICATIONS

Dimensions² (W x H x D) mm 447 x 318 x 395

Weight (kg) 63 kg

Module Casing Material GI Powdered

Terminal Type F08 Terminals

SMART FEATURES

OLED Display Monitor Module

Communication WIFI

Alarm Buzzer alarm in the event of Over/under-Voltage, Over-Current, Over Temperature

Dry Contacts Input 24Vdc three digital input with isolated ground

Dry Contacts Output Four programmable Dry Contacts

SAFETY PERFORMANCE

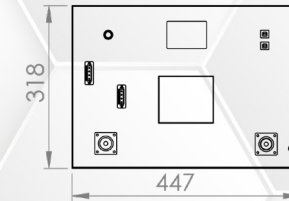
Circuit Breaker 2 x 125A 2P Mechanical Actuated Breaker

Short Circuit Protection Instant Electronic Switching, Terminal Cut-off

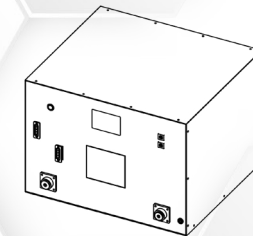
Over/under Voltage Electronic Switching, Terminal Cut-off

Over Current Electronic Switching, Terminal Cut-off

Over Temperature Electronic Switching, Terminal Cut-off



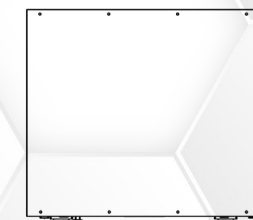
FRONT VIEW



ISOMETRIC VIEW



SIDE VIEW



TOP 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	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.
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

¹The Module should not be operated outside the indicated temperature range or at currents higher than specified limits.

²Product Dimensions are for reference only and may change without notice.

³ Projected 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.

TEMPERATURE SPECIFICATIONS

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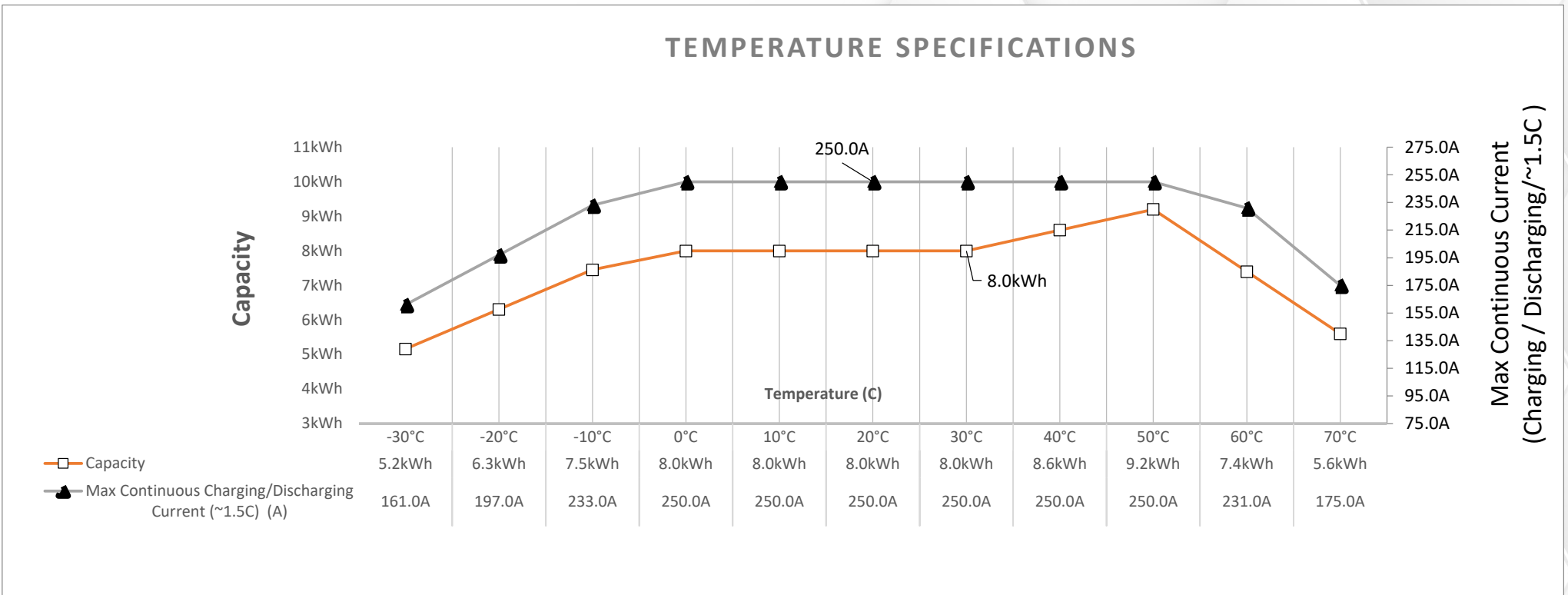


Fig. 1: Temperature Specifications of 8kWh 48V ENSIRIUS Module