ENCAP

BEYOND BATTERIES

TECHNICAL DATA SHEET

Micro Pro Max Module 8KWH-48V

EMX-8k-48-1C-2PA-X-X-PIB_1V0_GEN1

VERSION 1 | REVISION 0 | RELEASE DATE: 25th Sept 24

EFFICIENT

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

SAFE & RELIABLE

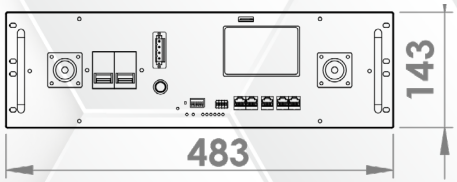
- Wide Operating Temperature Range
- Deployable in Various Environments including High Altitudes
- No Thermal Runaway Risk

PERFORMANCE SPECIFICATIONS	
DC Energy	8kWh
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	170A (~1C)
Charging Method	CC/CP/VP
DISCHARGE SPECIFICATIONS	
Maximum Continuous Discharge Current	170A (~1C)
Discharging Method	CC/CP/VP
EN-CONNECT SOFTWARE[2]	
Module Monitoring[2]	Total Voltage, Individual Cell Voltages, Current, Temperatures, SOC and Energy Consumed
MODULE ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature Range	-30°C~ +70°C
Operating Humidity	Non-Condensing

Front View

Isometric View

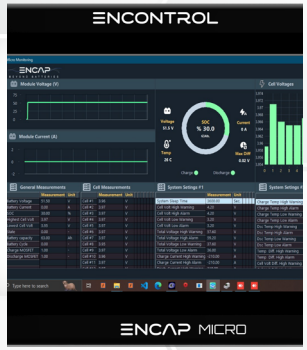
MECHANICAL SPECIFICATIONS	
Dimensions[1] (W x H x D) mm	483 x 143 x 568
Weight (kg)	50
Module Casing Material	GI Powdered
Terminal Type	300A Terminal Post
SMART FEATURES	
Circuit Breaker Protection	2P 125A Breaker
OLED Display	Monitor Module
Communication	CANBUS , RS232, RS485
Alarm	Buzzer alarm in the event of Over/under-Voltage, Over-Current, Over Temperature
Dry Contacts Output	Programmable Dry Contacts
SAFETY PERFORMANCE	
Fuse Protection	250A
Short Circuit Protection	Through MCB and Encontactor
Over/under Voltage	Through Encontactor
Over Current	Through MCB and Encontactor
Over Temperature	Through Encontactor
SERVICE LIFE	
Cells Projected Cycle Life[3]	500,000 cycles



Front View


Isometric View

Side View



Top View

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. Maximum of eight (8) Modules can be connected in series. Modules can only be connected in series through Encontactor and en controller refer to ENRack for better performance.
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	Series-Parallel Connection Modules can be connected in series-parallel combination through Encontactor and encontroller refer to ENRack for better performance.

NOTES

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

[2] Projected Life of encapsulated cells.

[3] Projected Calendar Life of encapsulated cells from the date of first operation.

[4] Shelf 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.
- **Encap Micro Pro Max must be operated with Encontactor and Encontroller, otherwise there is risk of severe damage. Please refer to the Enrack user manual or contact the technical support team for further guidance.**