

ADVANCED ENERGY STORAGE

TECHNICAL DATA SHEET 500WH - 12V

WWW.ENCAP.ENERGY

ENS-500-12-0.5C-X-X-X-X-1V0-GEN1



PERFORMANCE SPECIFICATIONS

| DC Energy | 500Wh |
|----------------------|--------------------|
| Voltage Range | 10.8Vdc to 15.2Vdc |
| DC Voltage (Nominal) | 12Vdc |
| Internal Resistance | <4 mΩ |

CELL SPECIFICATIONS

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

CHARGE CHARACTERISTICS

| Maximum Charge Current | 0.5C (20A) maximum (maximum continuous charging current) @25°C |
|------------------------|--|
| Charging Method | CC/CP/VP |

DISCHARGE SPECIFICATIONS

| Maximum Discharge Current | 0.5C (20A) maximum (maximum continuous discharging current) @25°C |
|---------------------------|---|
| Discharging Method | CC/CP/VP |

MECHANICAL SPECIFICATIONS

| Dimensions (W x H x D) mm | 256 x 200 x 131 |
|---------------------------|-----------------|
| Weight (kg) | 6 kg |
| Module Casing Material | Plastic Casing |

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 |

EN-CONNECT SOFTWARE

| Communication and Connectivity | Bluetooth / EN-Control device |
|--------------------------------|--|
| Module Monitoring | Total Voltage, Individual Cell Voltages, Current, Temperature, Instantaneous Power, Circuit Breaker Status, SOC and Energy Consumed. |



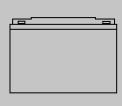
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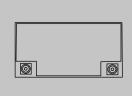
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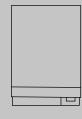












Front view

Isometric view

Top view

Side view

ENVIRONMENT SPECIFICATIONS

| Cell Operating Temperature ¹ | Charging: 0°C ~ 50°C (0°C to 10°C current limit 20A charge) |
|---|---|
| | Discharging: -20°C ~ +55°C |
| Operating Humidity | Non-Condensing |
| Storage Temperature | -10°C ~ +45°C (<3 months, SOC: 20% ~ 60%) -10°C ~ +35°C (<1 year, SOC: 30% ~ 60%) |

MODULE SERVICE LIFE

| Projected Cycle Life 3,4 | 500,000 Cycles |
|--------------------------------------|---|
| Projected Calendar Life ⁵ | 25 Years |
| Shelf Life ⁶ | 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 an event, do not install and energize the module under any circumstances and contact your re-seller |
| Short Circuit | Ensure precautions to prevent short-circuit under all circumstances |
| Galvanic isolation | When connecting to external devices ensure that galvanic isolation does not exceed 1000V |
| Series Connection | All modules must be at 100% SOC before connecting in series. Please consult your reseller when connecting in series. |
| Parallel Connection | All modules must be at 100% SOC before connecting in parallel. Please consult your reseller when connecting in parallel. |
| Series - Parallel Connection | Modules cannot be connected in series - parallel combination under any circumstance. |



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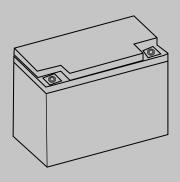
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¹The temperature range indicates the range in which the encapsulated cells can operate. The performance of the cells may vary if they are continuously operated outside a temperature range of -20°C to 55°C, and/or at C-rates higher than the maximum 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 -20°C to 55°C, and/or at C-rates higher than the maximum charge/discharge rate specified in the spec sheet, please consult Enercap or its Reseller prior to deploying.

²Warranty conditions will apply. Please consult your, Reseller or Enercap for warranty conditions applicable to your region.

³Projected life of encapsulated cells. Cycle life will vary if cycled more than 4 times a day.

⁴Additional terms and conditions, including a limited warranty, will apply at the time of purchase.

⁵Projected Calendar life of encapsulated cells from the date of first operation.

⁶Shelf life is the life of the module (in years) from the date it is manufactured to the time it is first operated

Product dimensions are for reference only unless otherwise identified and may change without notice.

For critical applications, please contact your Reseller or After Sales support.