

Durathon® Battery



Technology Engineered by General Electric Company and AM Power under

General Data

| | | |
|--|---|-------|
| Nominal Energy | 12.34 | kWh |
| Nominal Capacity | 92 | Ah |
| Ambient Conditions ¹ | -40 to 65 | °C |
| Humidity | <95% (no condensation) | RH |
| Altitude | <3,000 | m |
| Warm-up Time ² | <16 (from 25°C) | hours |
| Max Internal Heater Power | 510 | W |
| Avg Heater Power Consumption, CDC ¹ | <10 | W |
| Heater Power Consumption, Float | <130 | W |
| End of Discharge Voltage ² | 104 | Vdc |
| Dimensions ³ (H×D×W) | 353×631×506 | mm |
| Weight | 130±2 | kg |
| Design Life | 20 | yrs |
| Battery Certifications | UL9540A, CE, UL1973, IEC62984 (in progress) | |

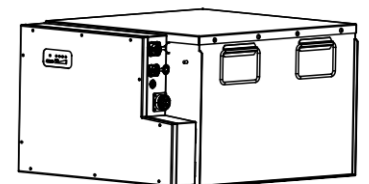
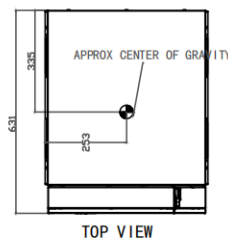
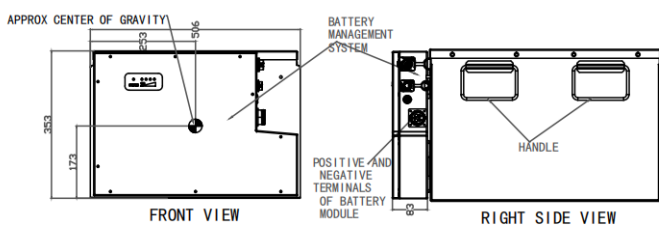
Technical Data

| Basic Parameters | | |
|------------------------------|------------|-----|
| Usable Energy ⁴ | 10.2 | kWh |
| Usable Capacity ⁴ | 82 | Ah |
| Max Recharge Current | 16 | A |
| Recharge Voltage Range | 141 to 160 | Vdc |
| Open Circuit Voltage | 134.2 | Vdc |

| Operating Parameters | | |
|---|----------|--------|
| Continuous Load Range | 1 to 3.4 | kW |
| Continuous Discharge Current | 8 to 24 | A |
| Max Discharge Current(1h) | 60 | A |
| Max Discharge Current(1min) | 120 | A |
| Cycles Between Return to Top of Charge (TOC) ⁵ | 40 | cycles |

| Others | |
|-------------------------|----------------------|
| Battery Terminals | Quick Plug Terminal |
| Ground Connection | M6 Hex Nut |
| Communication | RS485,MODBUS |
| Communication Protocol | CAN/LAN |
| Ingress Protection (IP) | IP55/IP65 (Optional) |
| Operating Status Lights | 1 LED (3 states) |
| SOC Status Lights | 4 LEDs |

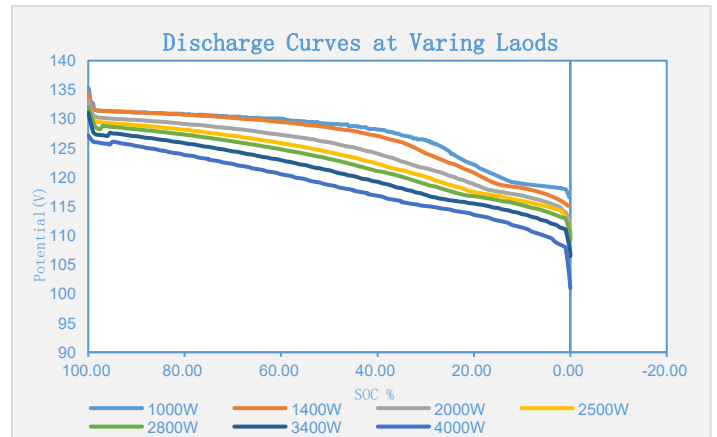
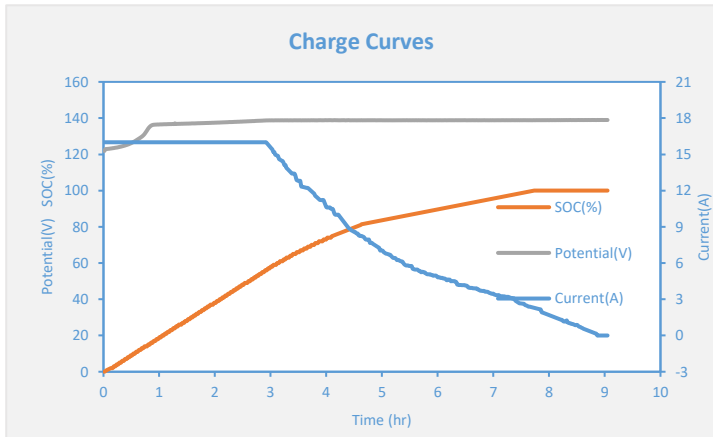
Dimension



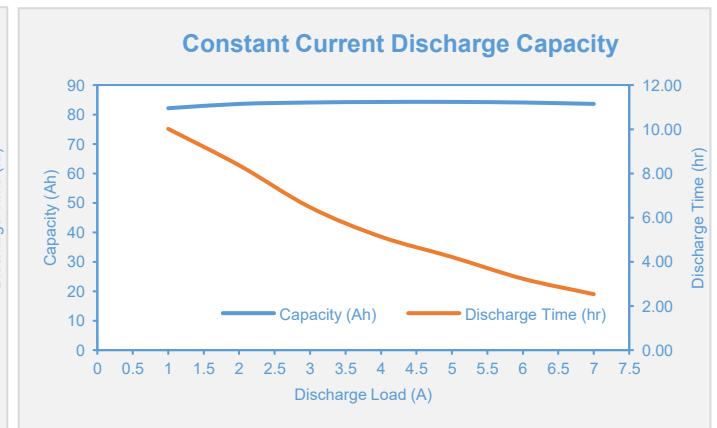
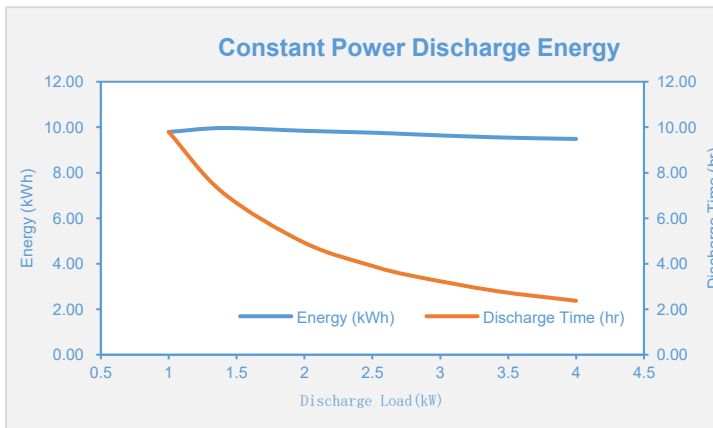
ESTIMATED BATTERY MODULE WEIGHT = 130KG

Performance Characteristics

The performance data presented below is based on testing done at labs at 25°C and applies to ambient temperatures from -40°C to 65°C at beginning of life (BOL). Actual performance may vary. Discharge curves apply after 24-hour charge cycle.



| | From 0% State of Charge to... | | | | | |
|------------------|-------------------------------|-----|-----|-----|-----|-----|
| | 50% | 60% | 70% | 80% | 90% | 95% |
| Charge Time (hr) | 2.6 | 3.1 | 3.7 | 4.5 | 6 | 7 |

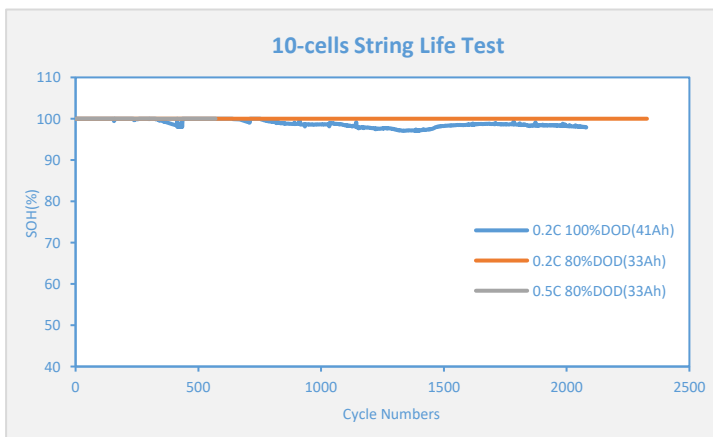


| | Load (W) | | | | | | |
|---------------------|----------|-------|-------|-------|-------|-------|-------|
| | 1000 | 1,400 | 2,000 | 2,500 | 2,800 | 3,400 | 4,000 |
| Energy (kWh) | 9.79 | 9.97 | 9.84 | 9.7 | 9.69 | 9.56 | 9.49 |
| Discharge Time (hr) | 9.79 | 7.12 | 4.92 | 3.9 | 3.46 | 2.81 | 2.37 |

| | Current (A) | | | | | | |
|---------------------|-------------|-------|-------|-------|-------|-------|-------|
| | 8.2 | 10 | 13 | 16.4 | 20 | 26 | 33 |
| Capacity (Ah) | 82.13 | 83.59 | 84.07 | 84.26 | 84.27 | 84.07 | 83.59 |
| Discharge Time (hr) | 10.02 | 8.37 | 6.47 | 5.13 | 4.22 | 3.23 | 2.53 |

Cycle Life Projection – At Varying Loads

The performance data presented below is the lab testing results at ambient temperature(25°C). Basing the testing results, the predicted cycle life at 0.5C 80%DOD is >6000 cycles with >80%SOH.



- 1 When continuously charged and discharged at rated load.
 - 2 Exact voltage is load-dependent. Extendable end of discharge voltage up to 80V during overload discharge.
 - 3 Dimensions are nominal.
 - 4 C/10 rate at beginning of life.
 - 5 Battery does not need to be taken off line to return to top of charge.
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