

# GRAPHENE SUPER CAPACITOR ENERGY STORAGE MODULE

## EM SERIES

REPRESENTED BY  
ATD ENERGY P/L

### FEATURES

- \* Graphene supercapacitor cells
- \* Safest technology
- \* Ultra long cycle life
- \* Extreme temperature
- \* Highest energy transfer efficiency
- \* Easy to install
- \* Rarely maintenance



Part Number	ATDE-EM-48V2500BAAM102R	ATDE-EM-48V3600BAAM102R
Energy storage	2.5KWh	3.6KWh
Nominal Voltage	48V/DC	48V/DC
Maximum Charge Voltage	58V/DC	58V/DC
Discharge Cut-off Voltage	37.8V/DC	37.8V/DC
ESR/AC @1KHz 50% SOC	<20mΩ	<15mΩ
Max. Continuous Charge Current	100A	100A
Max. Continuous Discharge Current	100A	100A
Peak Current	208A	208A
Cooling Method	Natural	Natural
Cells Self-discharge Rate	2% per month	2% per month
Projected Cycle Life ( 25°C)	50,000 times	50,000 times
Recommended Depth of Discharge	≤90%	≤90%
Maximum Depth of Discharge	100%	100%
Shell Material	Metal & ABS plastic	Metal & ABS plastic
Monitoring Data	SOC,voltage,current, temperature	SOC,voltage,current, temperature
Series Connection	Not allowed	Not allowed
Parallel Connection	Up to 10sets	Up to 10sets
Series-Parallel Connection	Not allowed	Not allowed

### COMPLIANCE INFORMATION

Safety	UN38.3
Transport	MSDS
CE	EN 62133:2013, EN 55032:2015+AC:2016, EN 55035:2017, EN 61000-3-2:2014, EN 61000-3-3:2013
Environmental	RoHS
Compatible Inverters	SMA, Solax, Sungrow, Goodwe

### ENVIRONMENTAL SPECIFICATIONS

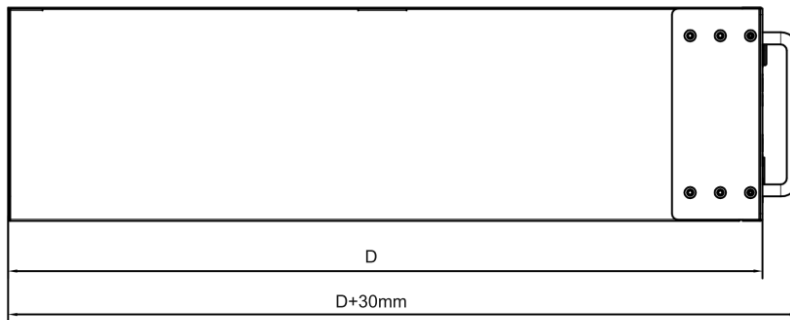
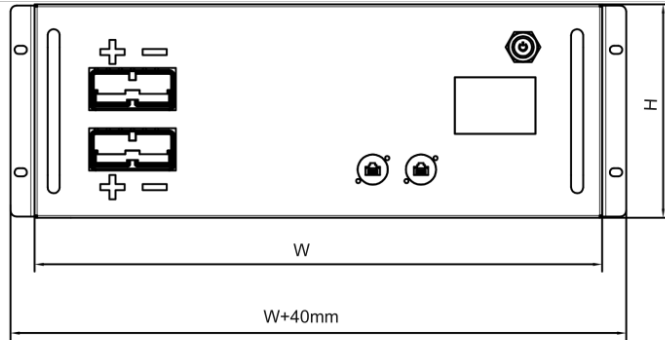
Environmental Protection	Indoor
Operating Humidity	0~90% RH Non-condensing
Charge Temperature	0°C~+55°C
Discharge Temperature	-20°C~+60°C
Storage Conditions	-20°C~+40°C 25% ~ 95%RH SOC>30%, one full charge needed per two months

# GRAPHENE SUPER CAPACITOR ENERGY STORAGE MODULE

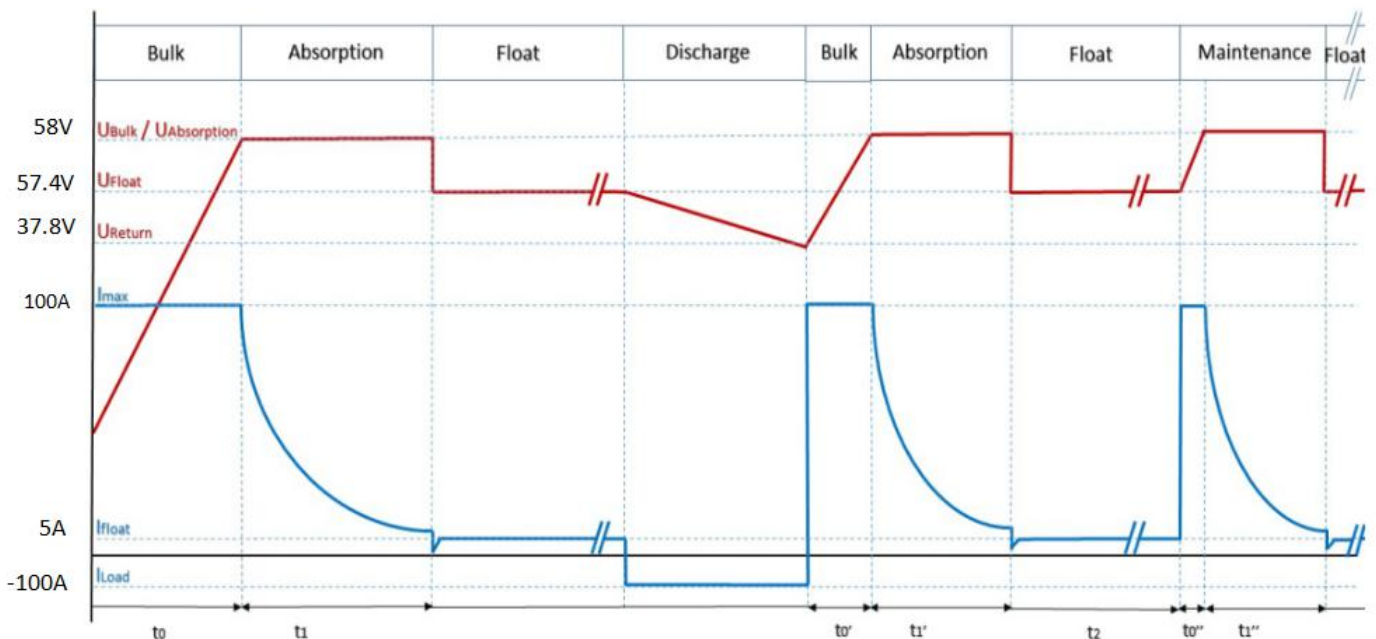
## MECHANICAL SPECIFICATIONS

Part Number	ATDE-EM-48V2500BAAM102R	ATDE-EM-48V3600BAAM102R
Weight	28Kg	32Kg
Dimensions(WxDxH)	475x365x177(mm)	475x365x177(mm)
Mount Options	On floor	On floor

Dimensions and weight differ slightly for each batch. Contact ATD Energy for additional information.



## CHARGING-DISCHARGING CURVE



**Note:** If the charger needs to set the floating charge voltage, it is recommended to set the  $U_{Float}$  value to 57.4V.