



AGM TECHNOLOGY  
ABT Etrek DM Series

Complying standards:  
IEC 61982. 3 2001  
IEC 61056. 1/2 2002

## 4-DM-146

8V146Ah(5hr,68 °F20°C)

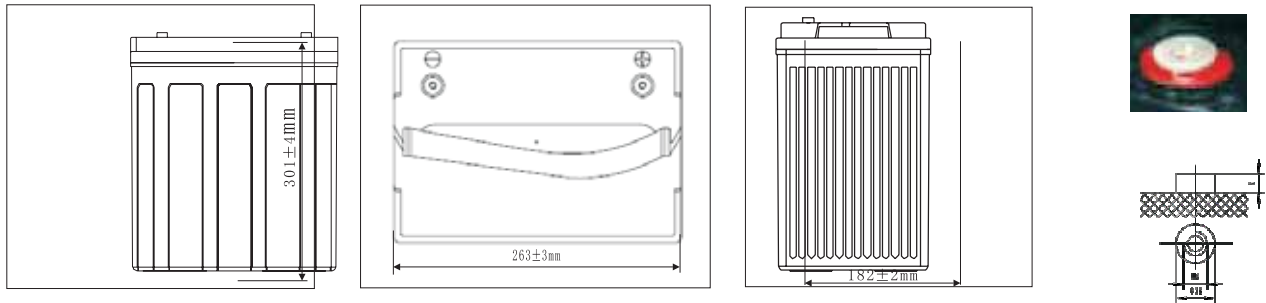
4-DM-146 is a Deep Cycle battery with the capability of high output power, especially for EV use. As with all ABT batteries, all are rechargeable, highly efficient, leak proof and maintenance free.



### Specification

Cells Per Unit	4
Voltage Per Unit	8
Capacity	146Ah @5hr-rate to 1.75V Per cell @20°C(68°F)
Weight	Approx. 37kg(81.4lbs)
Maximum Discharge Current	68°F(20°C) 730A
Internal Resistance	Approx. 2.5 mΩ
Operating Temperature Range	Discharge -20~45°C; Charge 5~35°C; Storage 0~40°C
Nominal Operating Temperature Range	20°C±3°C(68°F±5°F)
Float Charging Voltage	9.2 to 9.4 VDC/unit Average at 20°C(68°F)
Recommended Maximum Charging Current Limit	22A
Equalization and Cycle Service	9.7 to 9.9 VDC/unit Average at 20°C(68°F)
Self Discharge	ABT batteries can be stored for more than 6 months at 20°C(68°F). Please charge batteries before using. For higher temperatures the time interval will be shorter.
Terminal	Φ16×M6
Container Material	ABS(IEC707 V0) Flammability resistance of IEC707-V0 can be available upon request.

### Dimensions / Terminal



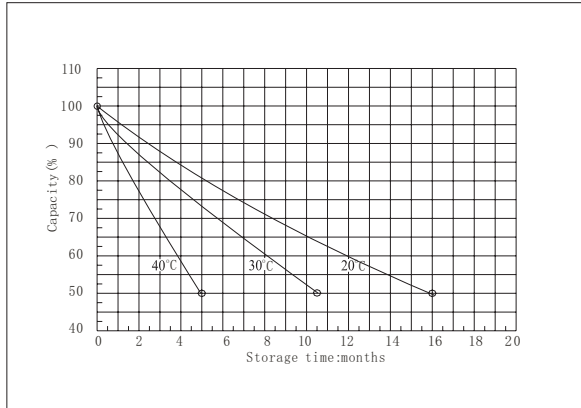
### Constant Current Discharge Data (Amperes at 20°C / 68°F)

End voltage (V/cell)	Discharge time (minute)										
	10	20	30	45	60	90	120	180	300	600	1200
1.6	360	252	176	146	108	79.2	59	50.4	31.5	16.4	9.11
1.65	353	243	173	142	104	76.5	58.6	48.6	31.3	16.2	9.07
1.7	346	234	169	139	101	73.8	58	46.8	30.2	16	9.04
1.75	340	225	166	135	97.2	71.1	57.5	45	29.2	16	9

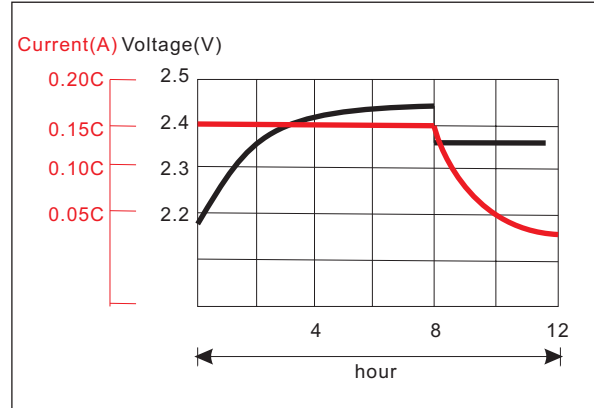
### Constant Power Discharge Data (Watts per cell at 20°C / 68°F)

End voltage (V/cell)	Discharge time (minute)										
	10	20	30	45	60	90	120	180	300	600	1200
1.6	637	457	323	268	201	148	112	95.8	59.9	31.1	17.3
1.65	624	441	316	262	194	143	109	92.3	59.5	30.8	17.2
1.7	612	425	310	255	187	137	105	88.9	57.5	30.4	17.2
1.75	602	408	303	248	181	132	101	85.5	56.4	30.1	17.1

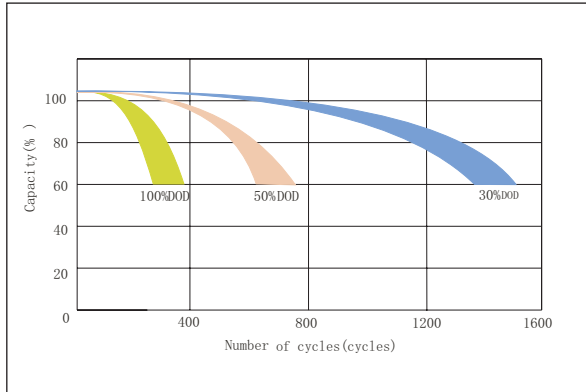
**Capacity Retention Characteristic**



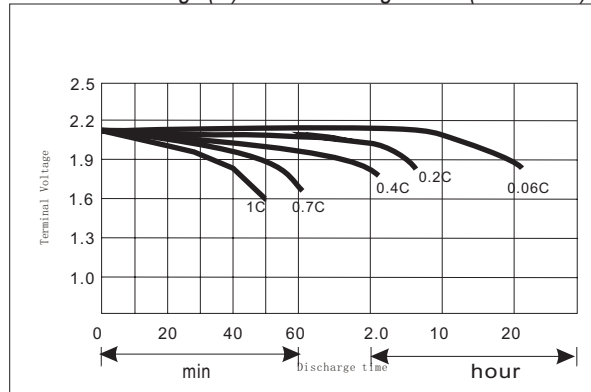
**Battery Voltage and Charge Time for Cycle Use**



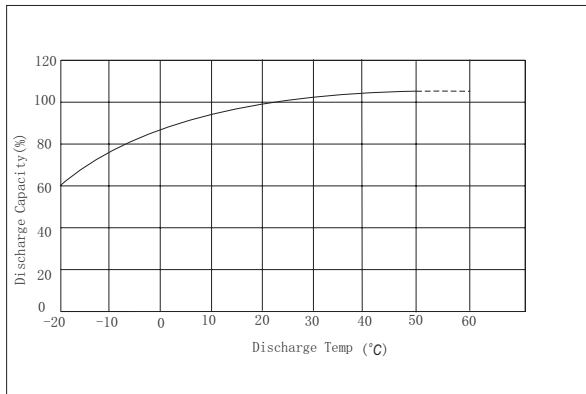
**Cycle Service Life**



**Terminal Voltage (V) and Discharge Time (20°C/68°F)**



**Discharge Capacity Vs Temperature**



**Applications**

- House car
- Trolley
- Golf car
- Electric vehicle
- Electric machine

**Charging Procedures**

Application	Charge Voltage(V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Ranges	
Cycle Use	20°C(68°F)	2.45	2.40~2.50	0.15C
Standby	20°C(68°F)	2.33	2.30~2.35	0.2C

**Discharge Current VS. Discharge Voltage**

Final Discharge Voltage V/Cell	1.75	1.60	1.40
Discharge Current(A)	0.4C ≥ (A)	0.4C < (A) ≤ 1.0C	(A) ≥ 1.5C

**Contact information**

SHANDONG SACRED SUN POWER SOURCES CO.,LTD.  
Add: 1, Shengyang Road, Qufu 273100 Shandong, China  
Tel: +86-537-4438 666 extn 6027 Fax: +86-537-4411 936  
Website: <http://www.abtbatt.com> Email: [sales@abtbatt.com](mailto:sales@abtbatt.com)

ABT VRLA Battery: Available Power Range From 0.8Ah to 3000Ah

Copyright SACREDSUN™,  
All rights reserved.  
(Edition: Mar, 2010)