



AGM TECHNOLOGY
ABT Etrek DM Series

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

3-DM-220

6V220Ah(5hr,68 °F20°C)

3-DM-220 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.



ISO14001

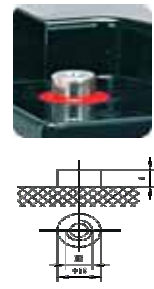
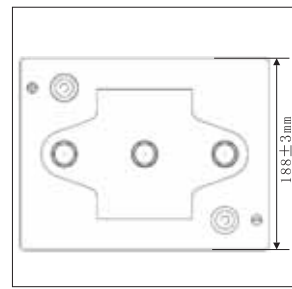
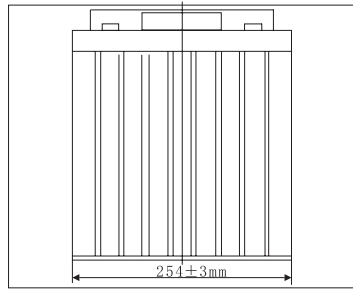
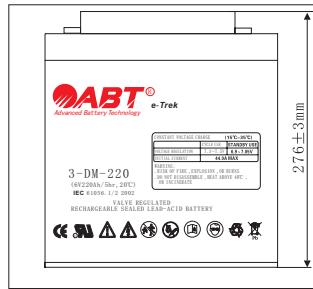
ISO9001



Specification

Cells Per Unit	3
Voltage Per Unit	6
Capacity	220Ah @5hr-rate to 1.75V Per cell @20°C(68°F)
Weight	Approx. 34.5kg(75.9lbs)
Maximum Discharge Current	68°F(20°C) 2200A
Internal Resistance	Approx. 1.2 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	6.9 t o 7.05 VDC/unit Average at 20°C(68°F)
Recommended Maximum Charging Current Limit	35A
Equalization and Cycle Service	7.3 to 7.45 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	Φ18×M8
Container Material	ABS(IEC707 V0) Flammability resistance of IEC707-V0 can be available upon request.

Dimensions / Terminal



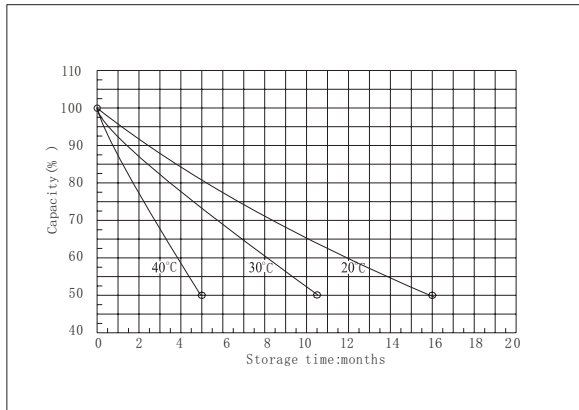
Constant Current Discharge Data (Amperes at 20°C / 68°F)

End voltage (V/cell)	Discharge time (minute)										
	10	20	30	45	60	90	120	180	300	600	1200
1.6	530	371	260	215	159	117	88	74.2	46.4	24.1	13.4
1.65	519	358	254	209	154	113	87.5	71.6	46.1	23.9	13.4
1.7	509	345	249	204	148	109	86.7	68.9	44.5	23.6	13.3
1.75	501	331	244	199	143	105	86.1	66.3	44	23.5	13.3

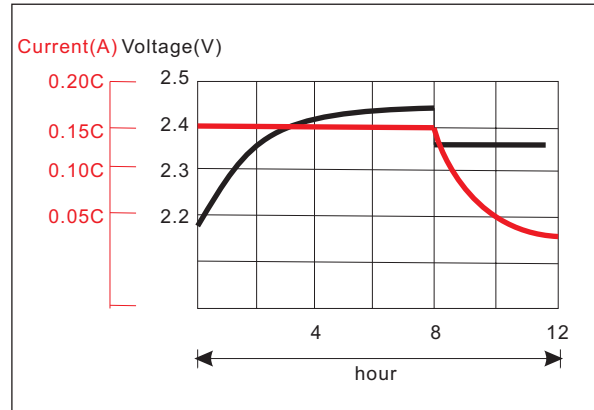
Constant Power Discharge Data (Watts per cell at 20°C / 68°F)

End voltage (V/cell)	Discharge time (minute)										
	10	20	30	45	60	90	120	180	300	600	1200
1.6	938	673	475	395	295	217	165	141	88.1	45.8	25.5
1.65	919	649	466	385	286	210	164	136	87.6	45.3	25.4
1.7	901	625	456	375	276	202	162	131	84.6	44.8	25.3
1.75	887	601	446	366	266	195	161	126	83.1	44.3	25.2

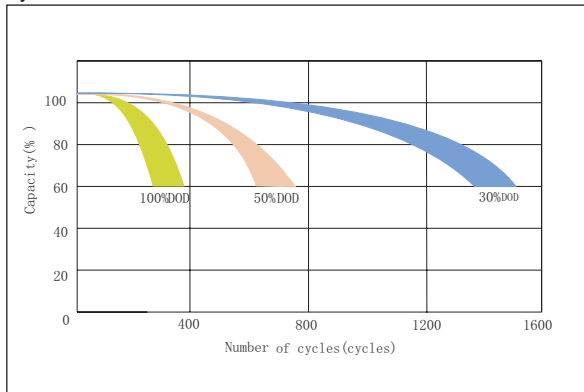
Capacity Retention Characteristic



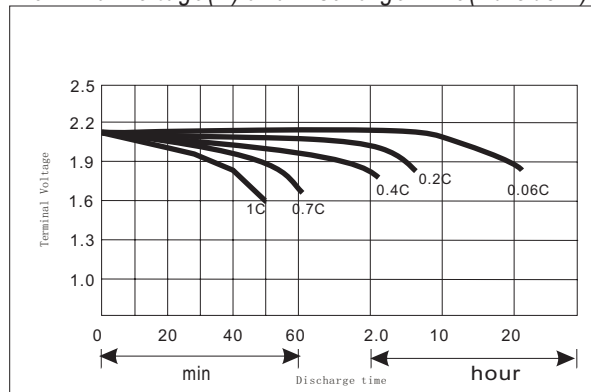
Battery Voltage and Charge Time for Cycle Use



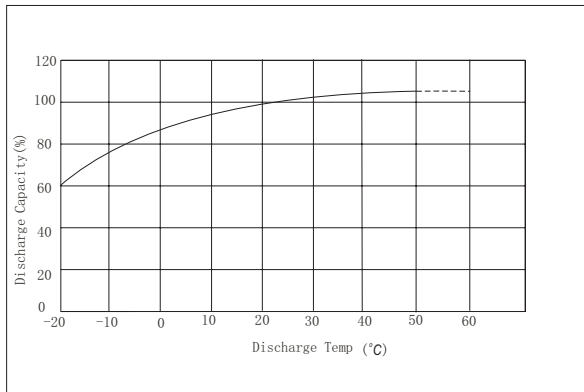
Cycle Service Life



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	0.20C

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

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