

LEAD ACID (DEEP CYCLE) BATTERY

MD26-12

Marvel MD series is specially designed for frequent discharge deep cycle applications. By using the specially designed active material, strong grids and thick plate construction, the series battery offers reliable performance in high load situations and could provide competitive cycle performance. Suitable for electric vehicles and golf carts; industrial equipment, floor machines, forklifts, aerial lifts, and robotics; marine, RV, and no-idle solutions; mobility and medical equipment; and most outdoor applications.

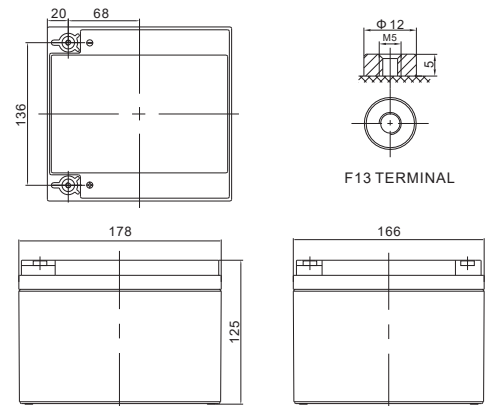


MADE IN VIETNAM / CHINA

SPECIFICATION

Cells Per Unit	6
Voltage Per Unit	12
Capacity	26Ah@20hr-rate to 1.75V per cell @25
Weight	Approx. 8.1 Kg (Tolerance±3%)
Internal Resistance	Approx. 11.5 mΩ
Terminal	F13(M5)/F3(M5)/F24(M5)
Max. Discharge Current	260A (5 sec)
Design Life	8 years (floating charge)
Maximum Charging Current	7.8 A
Reference Capacity	C3 20.3AH
	C5 22.9AH
	C10 24.7AH
	C20 26.0AH
Float Charging Voltage	13.7 V~13.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	13.7 V~13.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Self Discharge	Marvel Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions



Length	166 ± 1.5mm (6.54 inches)
Width	178 ± 1.5mm (7.01 inches)
Height	125 ± 1.5mm (4.92 inches)
Total Height	125 ± 1.5mm (4.92 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Constant Current Discharge Characteristics :A(25°C)

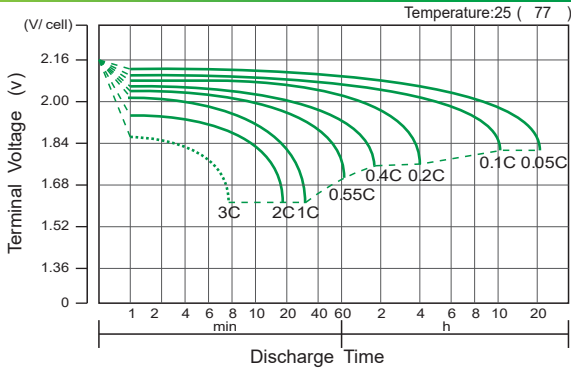
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	63.13	47.99	28.31	15.79	9.404	7.325	5.746	4.888	3.135	2.600	1.347
1.65V	58.15	44.88	26.82	15.25	9.089	7.100	5.574	4.734	3.110	2.575	1.340
1.70V	53.90	42.20	25.43	14.76	8.847	6.800	5.402	4.606	3.061	2.526	1.323
1.75V	49.45	39.53	24.43	14.30	8.507	6.625	5.255	4.478	3.012	2.501	1.300
1.80V	45.00	36.20	23.53	13.66	8.216	6.500	5.132	4.420	2.962	2.476	1.287
1.85V	35.21	29.95	19.95	12.20	7.514	6.050	4.813	4.069	2.789	2.328	1.275

Constant Power Discharge Characteristics : WPC(25°C)

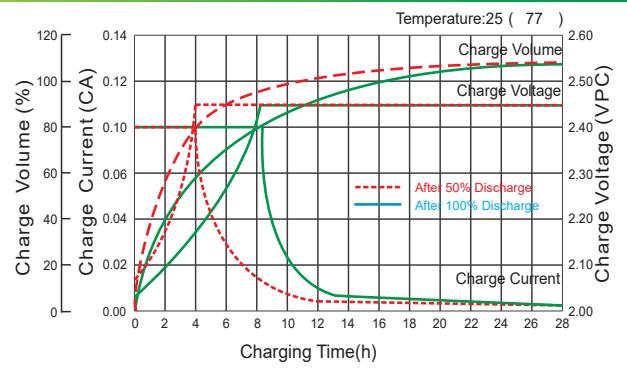
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	107.5	83.71	51.45	29.65	17.78	13.91	11.07	9.252	6.109	5.099	2.690
1.65V	103.5	81.39	50.24	29.14	17.30	13.56	10.80	9.002	6.061	5.050	2.666
1.70V	96.61	77.04	47.82	28.28	16.87	13.04	10.46	8.777	5.987	4.952	2.642
1.75V	89.90	72.71	46.15	27.50	16.27	12.72	10.22	8.577	5.890	4.903	2.594
1.80V	82.83	67.22	44.66	26.38	15.90	12.65	10.02	8.461	5.792	4.854	2.570
1.85V	65.70	56.47	38.30	23.69	14.64	11.80	9.429	7.826	5.474	4.584	2.546

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The Cm should reach 95% after the first cycle and 100% after the third cycle.

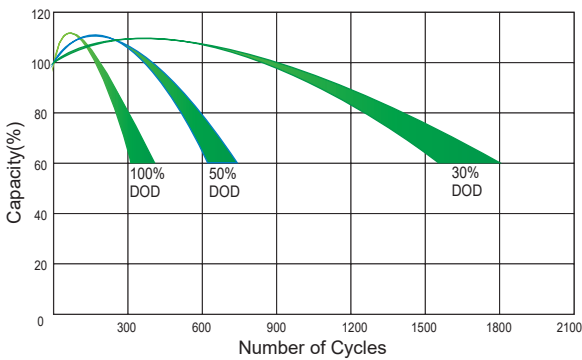
Discharge Characteristics Curve



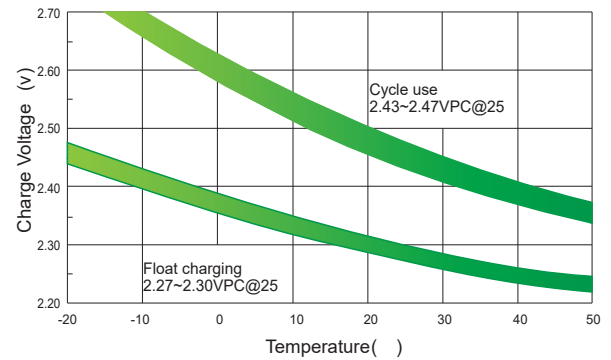
Charge Characteristic Curve for Cycle Use(IU)



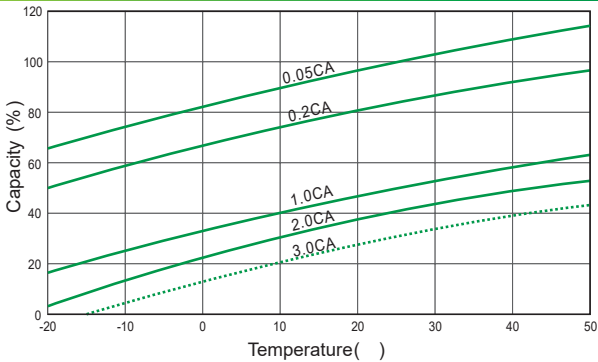
Cycle Life in Relation to Depth of Discharge



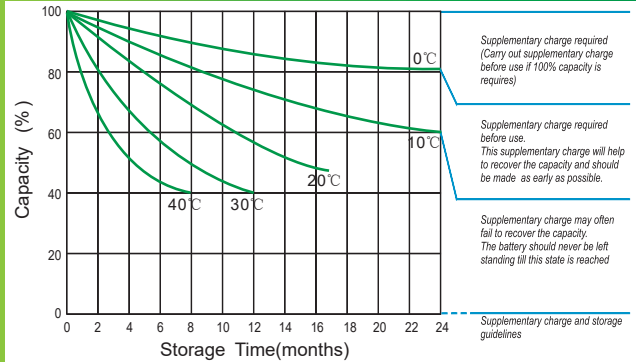
Relationship Between Charging Voltage and Temperature



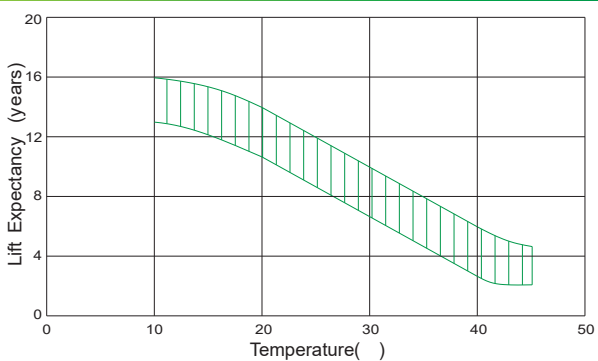
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20 °C)

