

DEEP CYCLE GEL BATTERY

MG18-12



Applications

- UPS/EPS
- Power systems
- Telecommunications system
- Emergency lighting, Auto control system
- Solar/wind generating storage cyclic
- Other general purpose

General Features

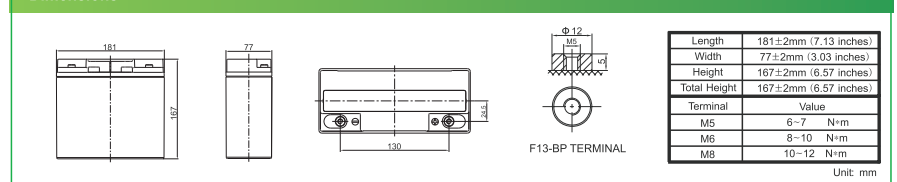
- High corrosion resistant performance: Pb-Ca multi-alloy grid
- High energy density and power density
- Optimized capability of instant high-current discharging
- Excellent charge acceptance ability
- Excellent deep cycle discharge capability
- Strong high and low temperature performance
- Precision sealing technology

Specification

Cells Per Unit	6
Voltage Per Unit	12V
Capacity	18Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 5.90 Kg (Tolerance ±5%)
Internal Resistance	≤14.0 mΩ (Full Charge Condition @25°C)
Terminal	Default F13-BP(M5), F3(M5) Optional
Max. Discharge Current	234A (5 sec)
Cold Cranking Ampere(CCA)	180A
Maxi. Charging Current	5.4A
Reference Capacity	C ₃ 13.5Ah C ₅ 14.9Ah C ₁₀ 17.0Ah C ₂₀ 18.0Ah
Float Charging Voltage	13.7 V~13.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°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



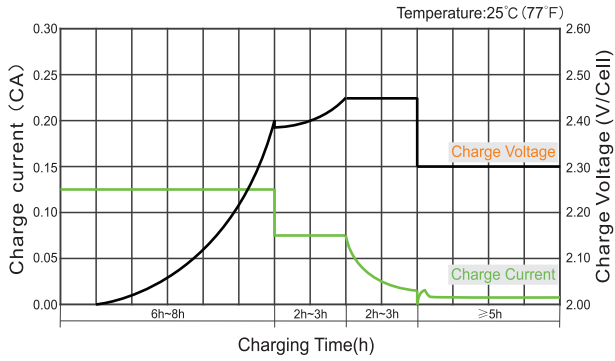
Constant Current Discharge Characteristics : A(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	75.26	49.34	36.75	21.13	12.40	7.075	4.997	3.907	3.261	2.203	1.823	0.936
1.65V	72.47	47.70	35.65	20.68	12.17	6.954	4.920	3.853	3.221	2.179	1.804	0.928
1.70V	68.85	45.55	34.20	20.10	11.86	6.795	4.819	3.782	3.167	2.146	1.780	0.916
1.75V	64.03	42.68	32.26	19.30	11.43	6.576	4.679	3.683	3.092	2.101	1.746	0.900
1.80V	57.63	38.84	29.65	18.20	10.85	6.274	4.486	3.546	2.989	2.037	1.699	0.879
1.85V	48.98	33.60	26.05	16.66	10.02	5.842	4.208	3.348	2.839	1.945	1.630	0.846

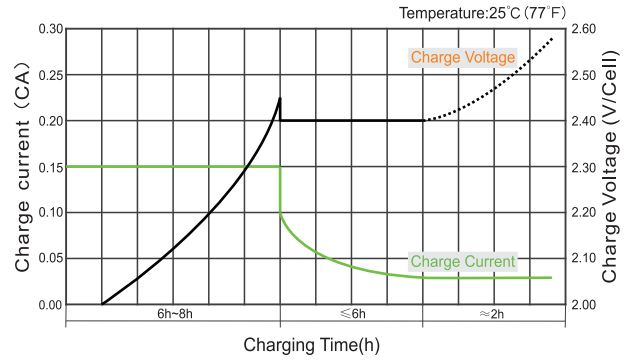
Constant Power Discharge Characteristics : W/Cell(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	127.6	83.87	64.25	38.37	23.19	13.41	9.544	7.501	6.286	4.303	3.583	1.843
1.65V	126.2	83.22	63.63	38.13	22.99	13.28	9.456	7.437	6.240	4.268	3.554	1.830
1.70V	121.2	80.37	61.59	37.25	22.48	13.01	9.283	7.315	6.148	4.209	3.508	1.809
1.75V	114.7	76.66	58.94	36.14	21.79	12.65	9.053	7.151	6.025	4.128	3.446	1.779
1.80V	105.1	70.98	54.93	34.44	20.77	12.13	8.713	6.910	5.844	4.013	3.356	1.739
1.85V	90.89	62.49	48.94	31.82	19.32	11.36	8.209	6.549	5.569	3.841	3.225	1.678

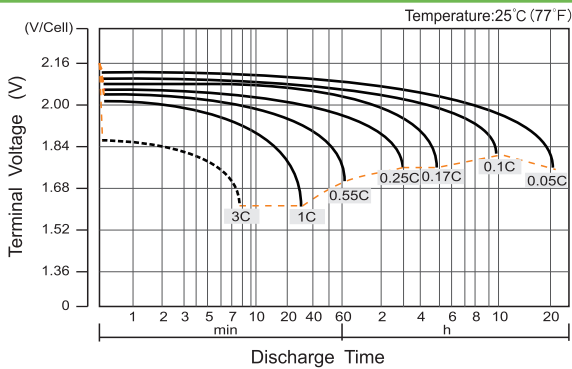
Charge Characteristic Curve for Cycle Use(IIUU)



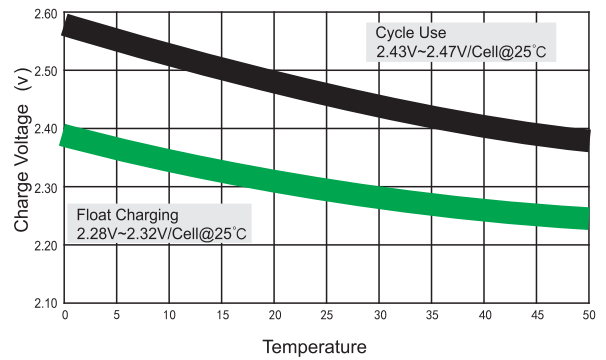
Charge Characteristic Curve For Cycle Use(UII)



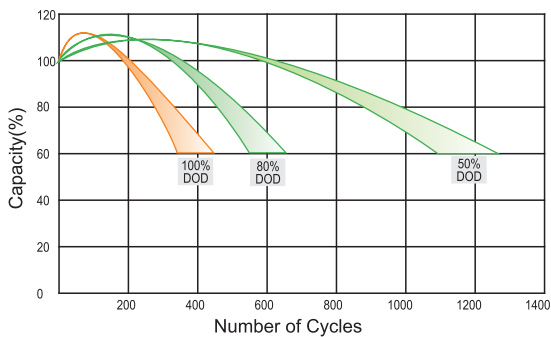
Discharge Characteristics Curve



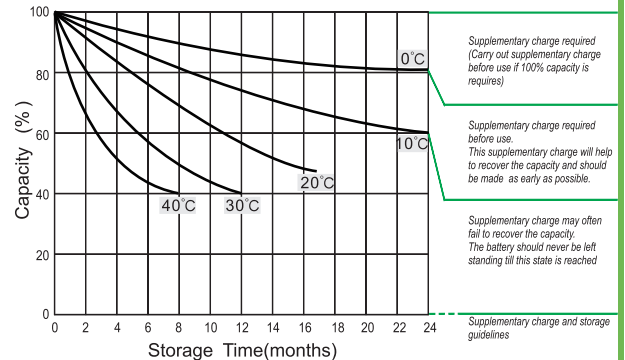
Relationship Between Charging Voltage and Temperature



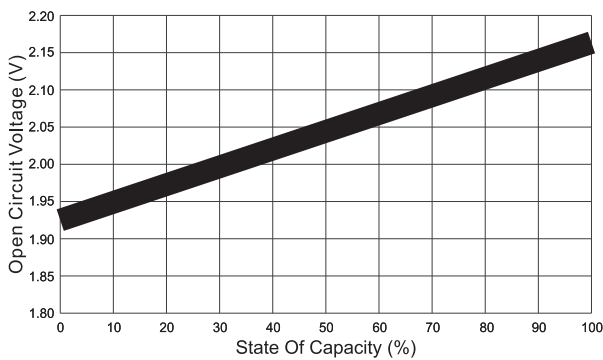
Cycle Life in Relation to Depth of Discharge



Storage Characteristics



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



Temperature Effects on Capacity

