

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	28Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 8.60 Kg (Tolerance ±5.0%)
Internal Resistance	Approx. 8.5 mΩ
Terminal	F3-BP(M5)
Max. Discharge Current	312A (5 sec)
Cold Cranking Ampere(CCA)	215A
Maxi. Charging Current	7.8A
Reference Capacity	C3 20.3AH
	C5 22.3AH
	C10 24.5AH
	C20 26.0AH
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	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.



series is specially designed for frequent discharge deep cycle application. By using the specially designed active material, strong grids and thick plate construction, the EV series battery offers reliable performance in high load situations and could provide competitive cycle performance. It is suitable for Electric Vehicle and Golf cart, Floor Machines, Forklifts, Aerial lifts, Robotics, Marine, RV, Mobility and Medical Equipment, and most outdoor application.



ISO 9001



ISO 14001



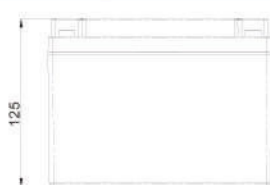
OHSAS 18001



MH 28539



Dimensions



F13-BP TERMINAL

Length	166±2mm (6.54 inches)
Width	176±2mm (6.93 inches)
Height	125±2mm (4.92 inches)
Total Height	125±2mm (4.92 inches)
Terminal	Value
M5	6~7 N+m
M6	8~10 N+m
M8	10~12 N+m

Unit: mm

Constant Current Discharge Characteristics : A(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	108.7	71.27	53.08	30.51	17.91	10.22	7.218	5.643	4.710	3.183	2.633	1.352
1.65V	104.7	68.89	51.49	29.87	17.57	10.05	7.107	5.566	4.652	3.147	2.606	1.340
1.70V	99.45	65.79	49.41	29.03	17.13	9.815	6.960	5.462	4.574	3.100	2.571	1.323
1.75V	92.48	61.65	46.60	27.88	16.51	9.499	6.759	5.320	4.467	3.034	2.522	1.300
1.80V	83.24	56.10	42.83	26.30	15.67	9.063	6.480	5.122	4.317	2.943	2.454	1.269
1.85V	70.75	48.53	37.63	24.06	14.47	8.438	6.078	4.836	4.100	2.810	2.354	1.223

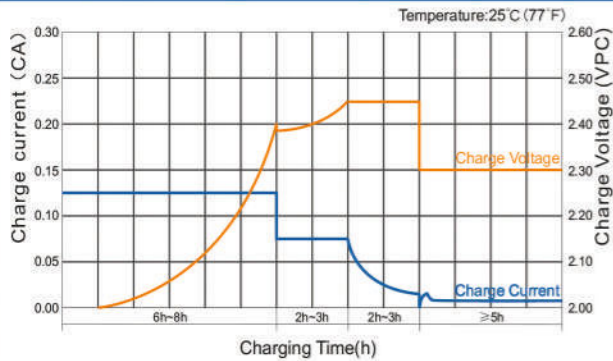
Constant Power Discharge Characteristics : WPC(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	184.3	121.1	92.80	55.42	33.49	19.37	13.79	10.83	9.08	6.22	5.17	2.66
1.65V	182.2	120.2	91.91	55.07	33.21	19.18	13.66	10.74	9.01	6.17	5.13	2.64
1.70V	175.0	116.1	88.96	53.81	32.47	18.80	13.41	10.57	8.88	6.08	5.07	2.61
1.75V	165.7	110.7	85.14	52.21	31.47	18.28	13.08	10.33	8.70	5.96	4.98	2.57
1.80V	151.8	102.5	79.35	49.75	30.01	17.52	12.59	9.98	8.44	5.80	4.85	2.51
1.85V	131.3	90.26	70.70	45.97	27.91	16.41	11.86	9.46	8.04	5.55	4.66	2.42

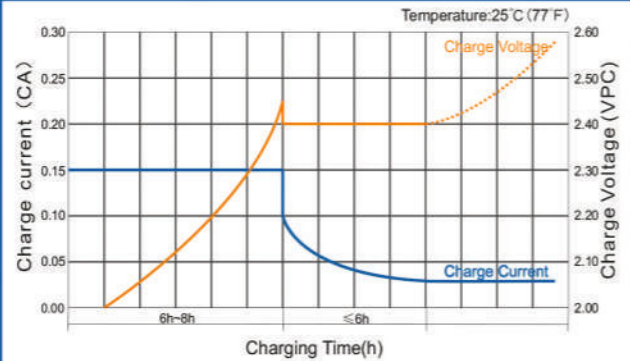
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

The battery must be fully charged before the capacity test. The C₁₀ should reach 95% after the first cycle and 100% after the third cycle.

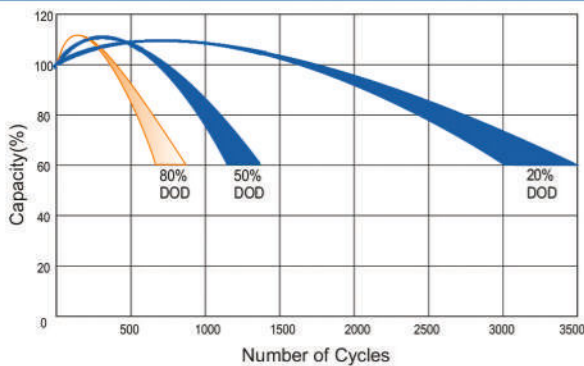
Charge Characteristic Curve for Cycle Use(IUUU)



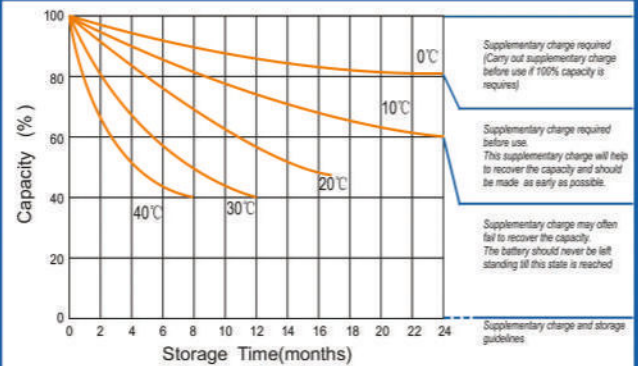
Charge Characteristic Curve For Cycle Use(IUI)



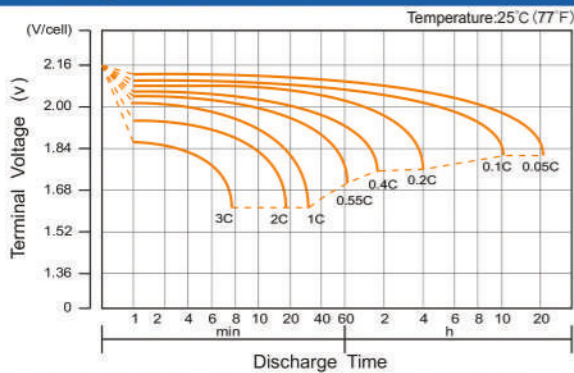
Cycle Life in Relation to Depth of Discharge



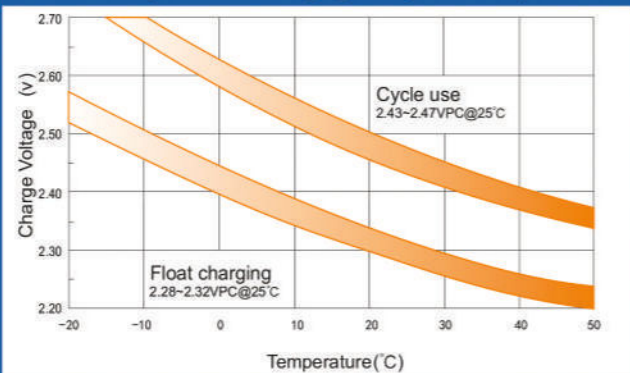
Storage Characteristics



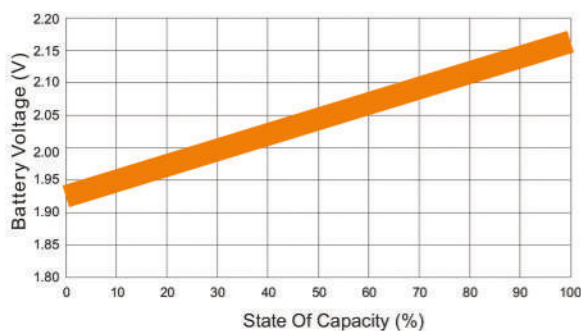
Discharge Characteristics Curve



Relationship Between Charging Voltage and Temperature



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



Temperature Effects on Capacity

