

Specification



DC (Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharging. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. The DC series batteries offer 30% more cyclic life than the standby series. It is suitable for solar and wind renewable energy storage, mobility and medical equipment and cable TV etc.



ISO 9001

ISO 14001

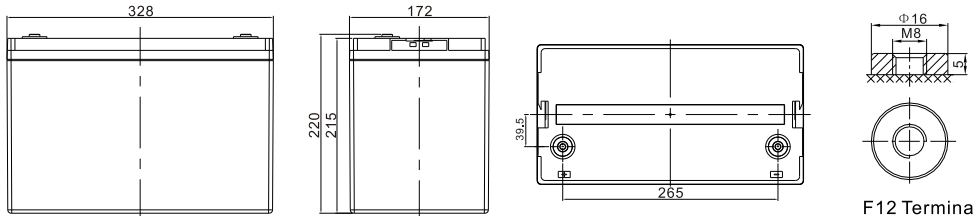
OHSAS 18001



MH 28539

Cells Per Unit	6
Voltage Per Unit	12
Capacity	120Ah@20hr-rate to 1.75V per cell @25°C 130Ah@20hr-rate to 1.80V per cell @25°C
Weight	Approx. 29.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 5.5 mΩ
Terminal	F5(M8)/F12 (M8)
Max. Discharge Current	1140A (5 sec)
Design Life	12 years (floating charge)
Max. Charging Current	34.5 A
Reference Capacity	C10 110.0AH C20 120.0AH C100 130.0AH
Float Charging Voltage	13.6 V~13.8 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	EXP 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



F12 Terminal

Length	328±2mm (12.9 inches)
Width	172±2mm (6.77 inches)
Height	215±2mm (8.46 inches)
Total Height	220±2mm (8.66 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)

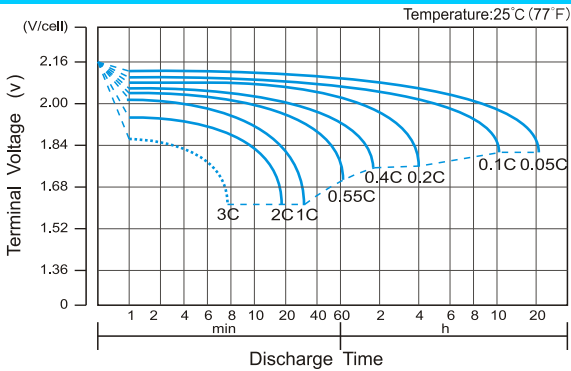
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR	24HR	48HR	72HR	100HR
1.60V	249.9	198.5	119.3	67.2	40.0	31.0	24.4	20.8	13.9	11.6	6.07	5.13	2.68	1.85	1.37
1.65V	236.2	189.8	114.5	64.9	38.8	30.1	23.7	20.2	13.8	11.5	7.07	5.06	2.65	1.83	1.35
1.70V	217.4	177.7	109.4	62.8	37.5	29.3	23.1	19.7	13.6	11.3	8.07	4.99	2.61	1.80	1.33
1.75V	199.0	165.4	104.6	60.5	36.2	28.4	22.5	19.2	13.4	11.1	9.07	4.92	2.58	1.78	1.31
1.80V	180.2	152.7	100.0	58.2	34.9	27.5	21.8	18.7	13.2	11.0	10.07	4.86	2.54	1.76	1.30
1.85V	147.2	126.7	86.1	52.2	32.0	25.4	20.3	17.4	12.4	10.4	11.07	4.57	2.39	1.65	1.22

Constant Power Discharge Characteristics : WPC (25°C)

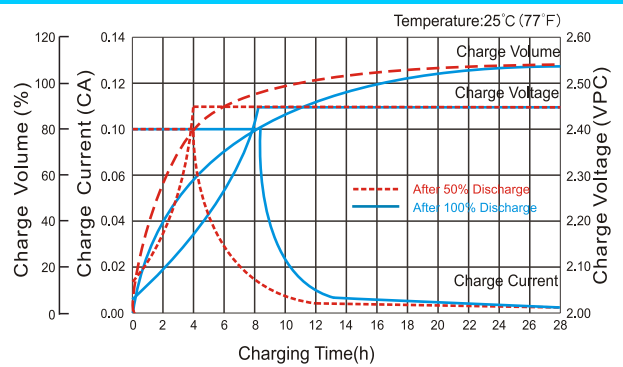
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR	24HR	48HR	72HR	100HR
1.60V	424.9	347.0	216.6	126.3	75.9	59.3	46.8	40.0	27.2	22.8	12.0	10.1	5.28	3.64	2.69
1.65V	409.2	336.6	210.1	122.7	73.8	57.7	45.7	39.1	27.0	22.6	11.8	9.97	5.22	3.60	2.66
1.70V	383.6	320.0	202.9	119.4	71.8	56.4	44.6	38.2	26.6	22.3	11.7	9.83	5.15	3.55	2.63
1.75V	357.5	302.1	195.9	115.8	69.6	54.9	43.7	37.4	26.3	22.0	11.5	9.71	5.08	3.51	2.59
1.80V	329.3	282.9	189.1	112.0	67.4	53.4	42.6	36.6	25.9	21.7	11.4	9.60	5.03	3.47	2.56
1.85V	273.9	238.1	164.5	101.0	62.1	49.6	39.7	34.2	24.4	20.5	10.9	9.05	4.74	3.27	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.

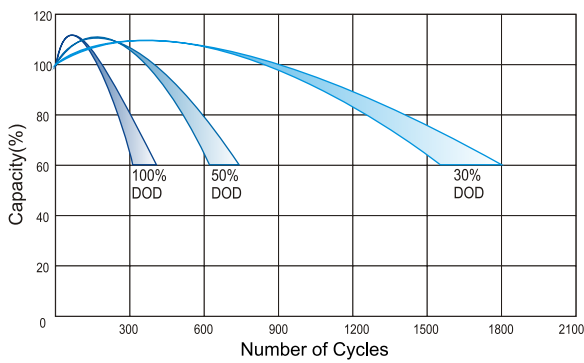
Discharge Characteristics Curve



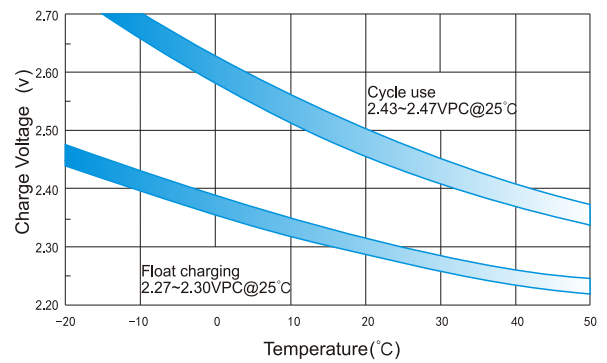
Charge Characteristic Curve for Cycle Use(IU)



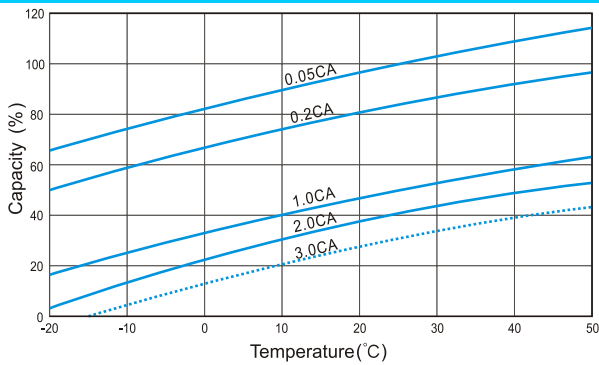
Cycle Life in Relation to Depth of Discharge



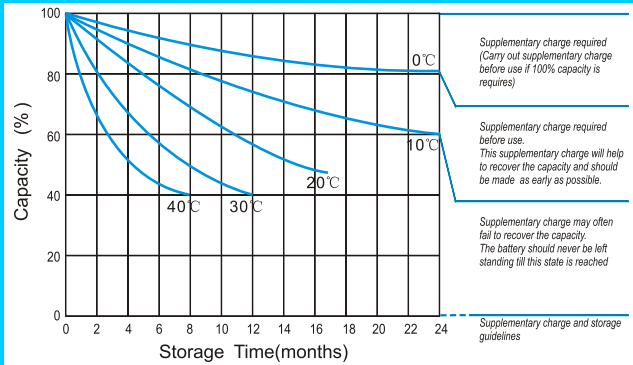
Relationship Between Charging Voltage and Temperature



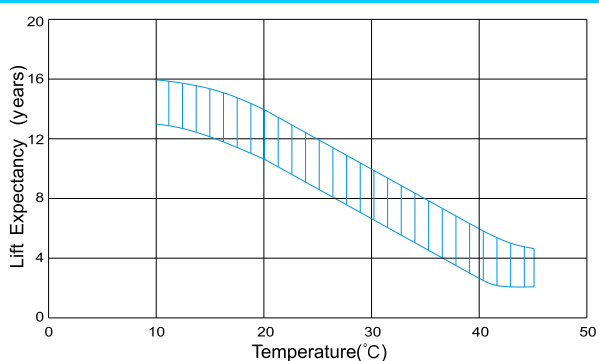
Temperature Effects on Capacity



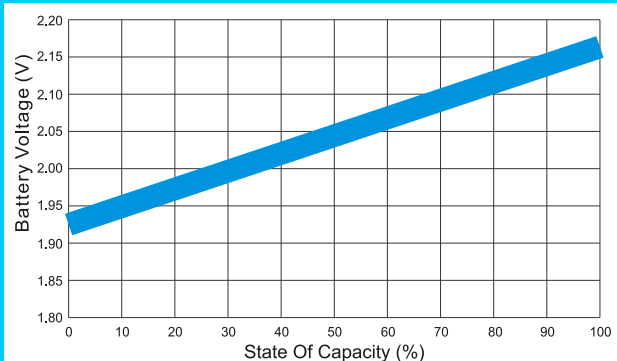
Storage Characteristics



Effect of Temperature on Long Term Life



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



(Note) All above information shall be changed without prior notice, EXP reserves the right to explain and update the latest information.