

DC12-50 (12V50Ah)



Specification



DC (Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharge. 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, V, telecom, broadband and cable TV, UPS systems etc.



ISO 9001 ISO 14001 OHSAS 18001



UL 28539 G4M20206-0910-E-16

Cells Per Unit	6
Voltage Per Unit	12
Capacity	50Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 15.5 Kg (Tolerance ±3%)
Internal Resistance	Approx. 7 mΩ
Terminal	F11 (M6)/F15 (M6)
Max. Discharge Current	500A (5 sec)
Design Life	12 years (floating charge)
Maximum Charging Current	15.0 A
Reference Capacity	C3 37.1AH C5 41.8AH C10 47.5AH C20 50.0AH
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	RITAR 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 charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Dimensions

Length	250±2mm (9.84 inches)
Width	160±2mm (6.30 inches)
Height	178±2mm (7.01 inches)
Total Height	183±2mm (7.20 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	166.5	122.5	91.42	52.45	30.31	17.75	13.21	10.46	8.82	6.02	5.10	2.60
1.65V	160.4	118.4	88.68	51.35	29.73	17.45	13.01	10.32	8.71	5.95	5.05	2.57
1.70V	152.3	113.1	85.09	49.89	28.97	17.04	12.74	10.13	8.56	5.86	4.98	2.54
1.75V	141.7	106.0	80.27	47.91	27.94	16.50	12.37	9.86	8.36	5.74	4.88	2.50
1.80V	127.5	96.4	73.76	45.20	26.51	15.74	11.86	9.50	8.08	5.56	4.75	2.44
1.85V	108.4	83.41	64.80	41.35	24.48	14.65	11.12	8.97	7.68	5.31	4.56	2.35

Constant Power Discharge Characteristics : WPC(25°C)

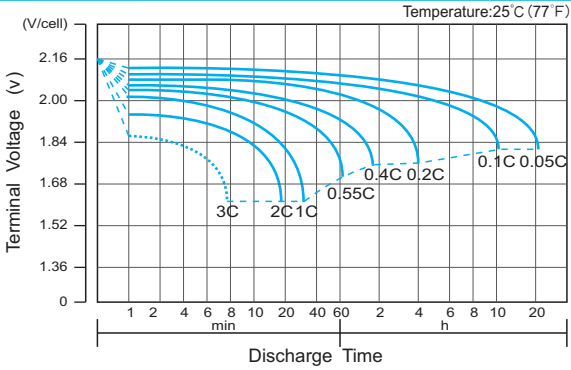
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	282	208	160	95.3	56.7	33.6	25.2	20.1	17.0	11.8	10.0	5.12
1.65V	279	207	158	94.7	56.2	33.3	25.0	19.9	16.9	11.7	9.94	5.08
1.70V	268	200	153	92.5	54.9	32.6	24.5	19.6	16.6	11.5	9.81	5.02
1.75V	254	190	147	89.7	53.2	31.7	23.9	19.2	16.3	11.3	9.64	4.94
1.80V	232	176	137	85.5	50.8	30.4	23.0	18.5	15.8	11.0	9.39	4.83
1.85V	201	155	122	79.0	47.2	28.5	21.7	17.5	15.1	10.5	9.02	4.66

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

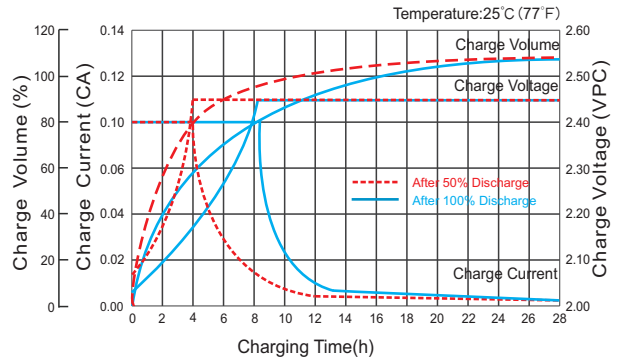
DC12-50(12V50Ah)



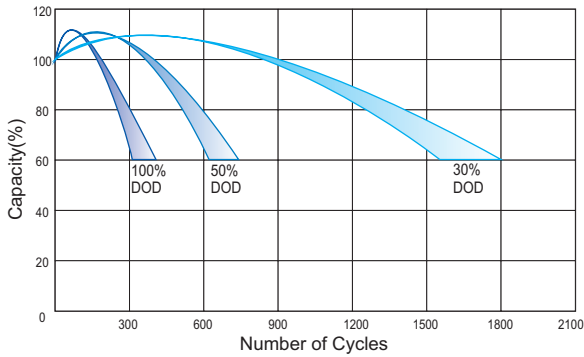
Discharge Characteristics Curve



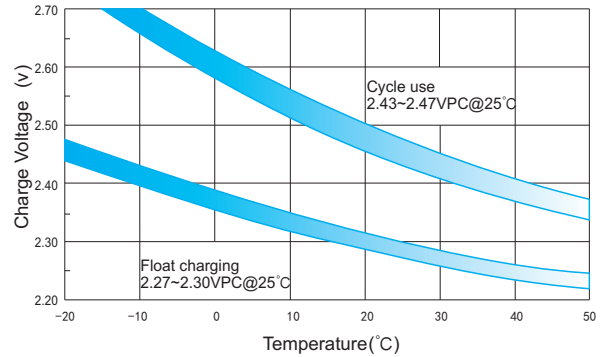
Charge Characteristic Curve for Cycle Use(IU)



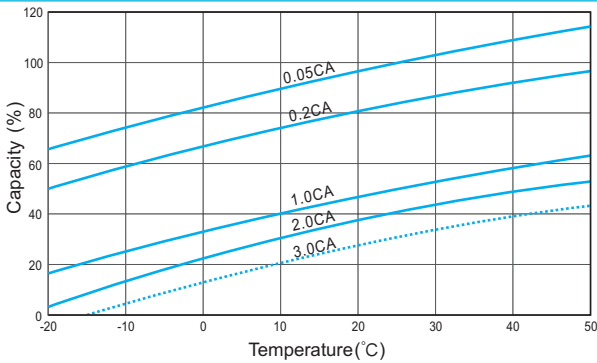
Cycle Life in Relation to Depth of Discharge



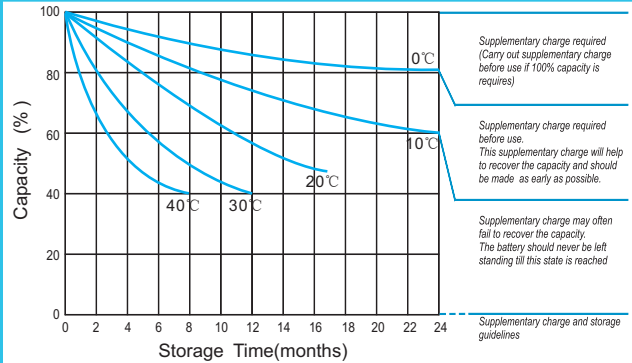
Relationship Between Charging Voltage and Temperature



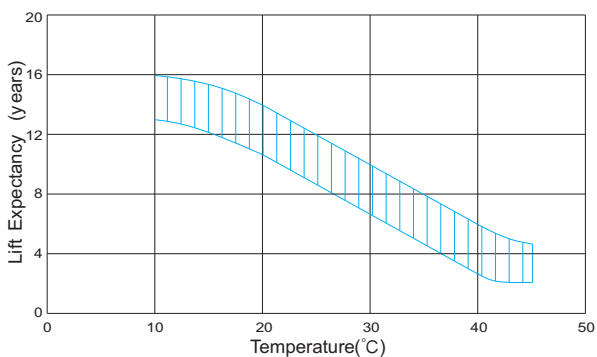
Temperature Effects on Capacity



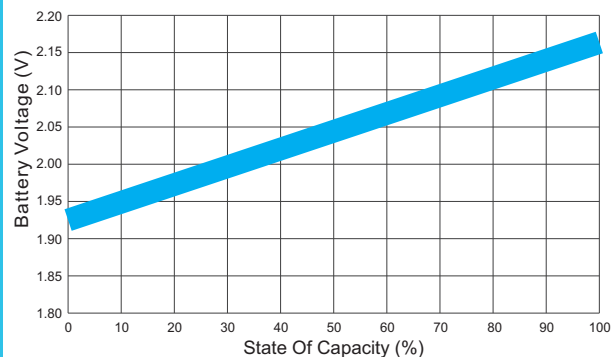
Storage Characteristics



Effect of Temperature on Long Term Life



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



For Battery Sales + EPA Battery Recycling and AC / DC Power Services, please contact:
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