



DC12-120A (12V120Ah)

DC (Deep Cycle) series is specially designed for frequent cyclic discharge. By using strong grids and specially designed active material, the DC series battery offers 30% more cyclic life than the standby series. It is suitable for solar energy systems, marine and RV etc.



Specification

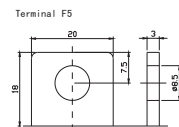
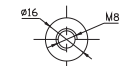
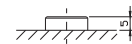
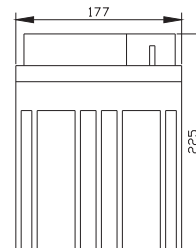
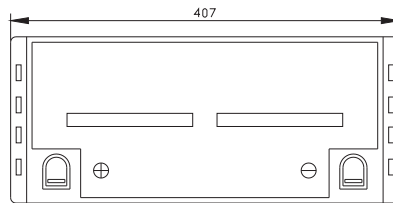
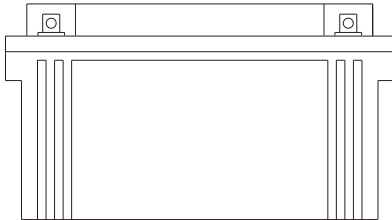
Cells Per Unit	6
Voltage Per Unit	12
Capacity	120Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 34.0 Kg (Tolerance±2%)
Max. Discharge Current	1200 A (5 sec)
Internal Resistance	Approx. 4.5 mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ± 5°C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current	36 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal F5/F12
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



Dimensions

Unit: mm Dimension: 407(L) × 177(W) × 225(H)

Terminal F12



Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	362.9	267.6	211.2	118.2	74.90	46.24	31.43	25.34	21.04	13.86	12.49	6.611
10.0V	352.4	254.6	206.8	116.6	73.91	45.31	30.84	24.98	20.85	13.80	12.36	6.487
10.2V	342.0	245.7	203.6	114.9	73.20	44.83	30.57	24.73	20.71	13.68	12.24	6.364
10.5V	307.1	226.7	193.8	111.7	72.30	44.25	30.30	24.37	20.54	13.55	12.12	6.241
10.8V	277.2	206.7	178.7	108.0	71.30	43.88	29.95	23.53	20.44	13.50	12.01	6.177
11.1V	236.7	184.7	160.3	103.9	69.61	42.12	29.36	23.19	20.29	13.39	11.87	5.927

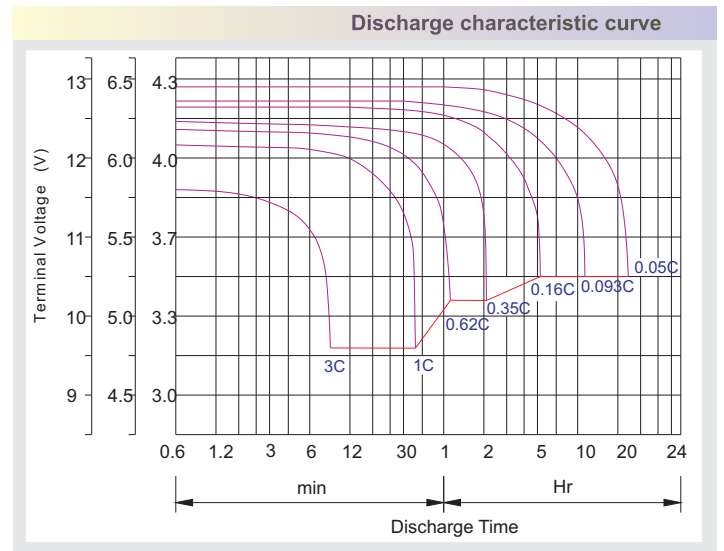
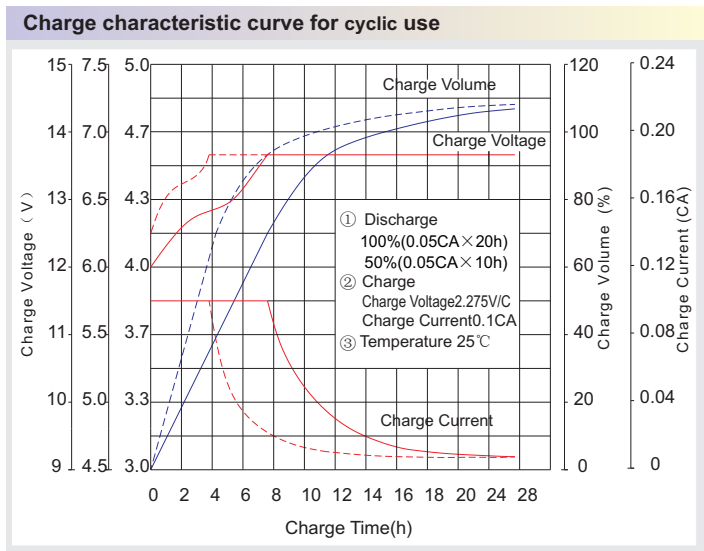
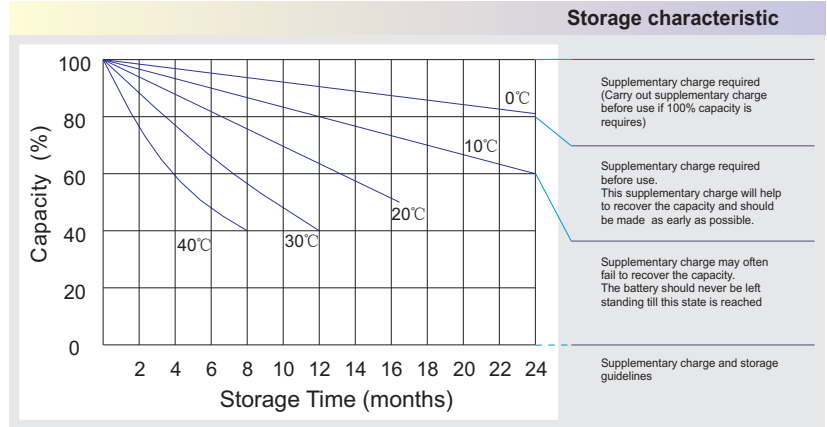
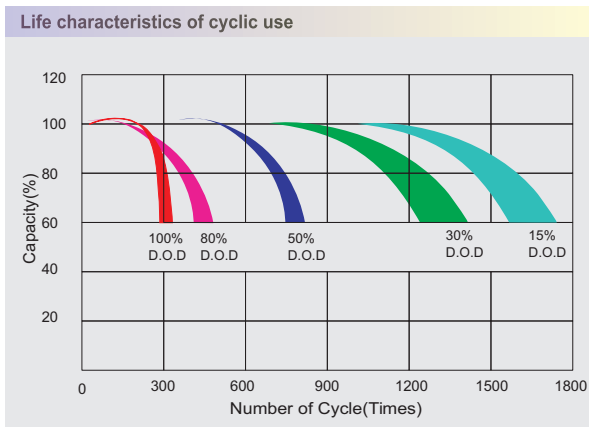
Constant Power Discharge Characteristics: W (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	3754	2850	2323	1353	868.0	541.9	370.0	303.3	252.0	165.9	149.7	79.63
10.0V	3680	2763	2286	1338	860.1	535.3	364.5	299.0	249.7	165.3	148.6	78.25
10.2V	3638	2690	2260	1327	855.0	531.5	362.9	296.2	248.2	164.0	147.2	76.80
10.5V	3312	2505	2156	1300	849.5	524.8	359.9	292.2	246.2	162.6	145.8	75.35
10.8V	3016	2309	1992	1269	838.6	520.9	355.9	282.4	245.1	161.9	144.4	74.62
11.1V	2649	2088	1793	1234	826.0	501.4	349.9	278.3	244.2	160.8	142.8	71.95

All mentioned values are average values (Tolerance ±2%).

DC12-120A

12V120Ah



Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

Discharge Current VS. Discharge Voltage

Final D ischarge Voltage V /cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤0.2C	0.2C < (A) <1.0C	(A) ≥1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4-2.45V/cellx24h, Max. Current 0.3C
Constant Current	-0.2Cx2h+0.1Cx12h
Fast	-0.2Cx2h+0.3Cx4h

Bolt	M5	M6	M8
Terminal	F3 F4 F13 F18 T25 T26	F8 F11 F12-1 F15	F5 F9 F10 F12 F14 F16
Torque	6-7N·m	8-10N·m	10-12N·m

Maintenance & Cautions

Cycle service
※ Avoid battery over discharge, especially battery series connection use.
※ Charged with recommend voltage, ensure battery can be full recharged.
In general, recharge capacity should be 1.1-1.15 times discharge capacity
※ Effect of temperature on cycle charge voltage: -4mV/°C/Cell.
※ There are a number of factors that will affect the length of cyclic service.
The most significant are depth of discharge, ambient temperature, discharge rate, and the manner in which the battery is recharged.
Generally speaking, the most important factors is depth of discharge.