

DC12-40(12V40Ah)

Specification

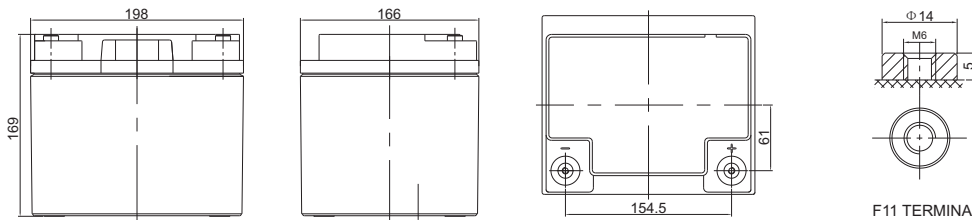


DC (Deep Cycle Gel) series is a hybrid GEL battery. It is an AGM battery with 12 years floating design life, ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented Gel electrolyte, the DC series offers excellent recovery capability after deep discharge under frequent cyclic discharge use, and can deliver 450 cycles at 100% DOD. Suitable for pumps, solar and wind system, CATV, marine, RV and deep discharge UPS, and telecommunication, etc.



Cells Per Unit	6
Voltage Per Unit	12
Capacity	40Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 12.4 Kg (Tolerance ±3%)
Internal Resistance	Approx. 8.0 mΩ
Terminal	F4(M6)/F11(M6)
Max. Discharge Current	400A (5 sec)
Design Life	12 years (floating charge)
Maximum Charging Current	12.0 A
Reference Capacity	C3 29.7AH C5 33.5AH C10 38.0AH C20 40.0AH
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	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



Length	198±2mm (7.80 inches)
Width	166±2mm (6.54 inches)
Height	169±2mm (6.65 inches)
Total Height	169±2mm (6.65 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
1.60V	97.99	73.14	41.96	24.24	14.20	10.57	8.37	7.05	4.81	4.08	2.08
1.65V	94.73	70.95	41.08	23.79	13.96	10.41	8.25	6.97	4.76	4.04	2.06
1.70V	90.47	68.07	39.91	23.18	13.64	10.19	8.10	6.85	4.69	3.98	2.03
1.75V	84.77	64.21	38.33	22.35	13.20	9.90	7.89	6.69	4.59	3.91	2.00
1.80V	77.14	59.01	36.16	21.21	12.59	9.49	7.60	6.47	4.45	3.80	1.95
1.85V	66.73	51.84	33.08	19.59	11.72	8.90	7.17	6.14	4.25	3.65	1.88

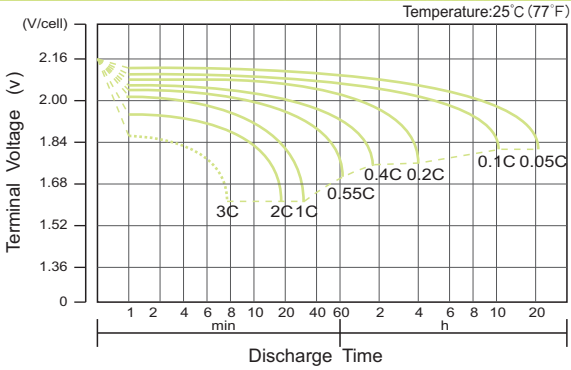
Constant Power Discharge Characteristics : WPC(25°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	166.6	127.9	76.2	45.3	26.9	20.2	16.1	13.6	9.40	8.02	4.09
1.65V	165.3	126.6	75.7	44.9	26.6	20.0	15.9	13.5	9.33	7.95	4.06
1.70V	159.6	122.6	74.0	44.0	26.1	19.6	15.7	13.3	9.20	7.85	4.02
1.75V	152.3	117.3	71.8	42.6	25.4	19.1	15.3	13.0	9.02	7.71	3.95
1.80V	141.0	109.3	68.4	40.6	24.3	18.4	14.8	12.6	8.77	7.51	3.86
1.85V	124.1	97.4	63.2	37.8	22.8	17.4	14.0	12.0	8.39	7.22	3.73

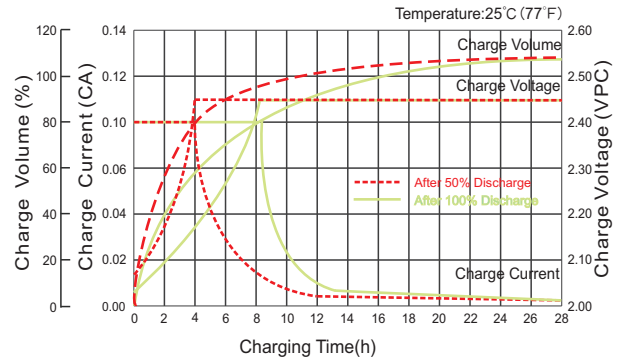
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C10 should reach 95% after the first cycle and 100% after the third cycle.

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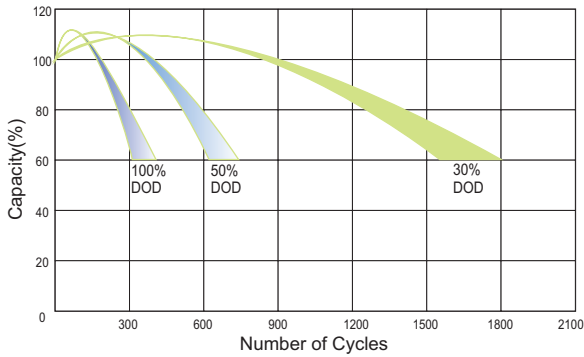
Discharge Characteristics Curve



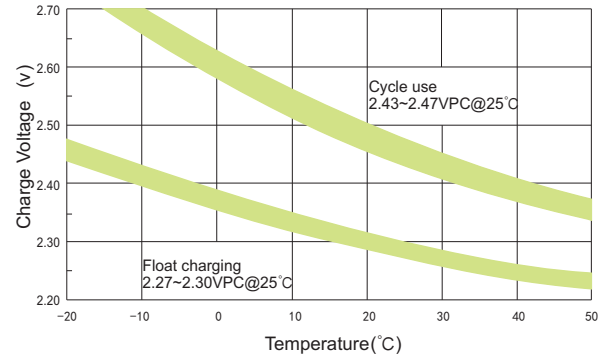
Charge Characteristic Curve for Cycle Use(IU)



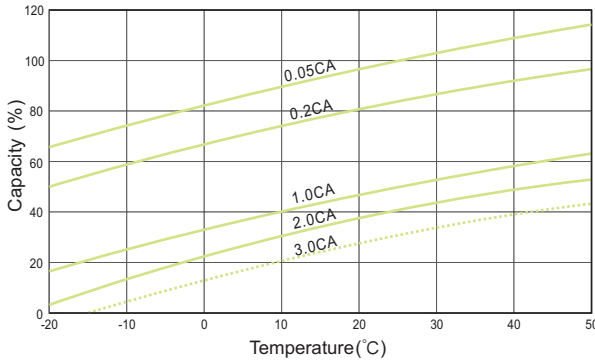
Cycle Life in Relation to Depth of Discharge



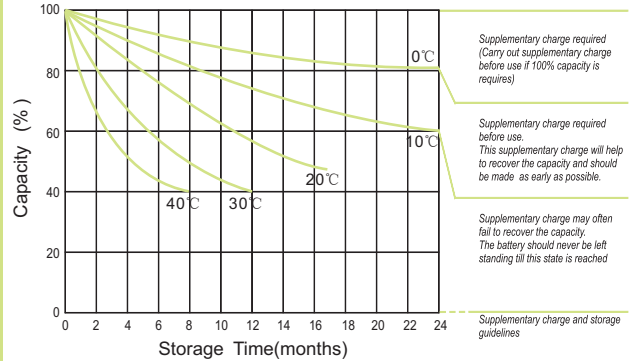
Relationship Between Charging Voltage and Temperature



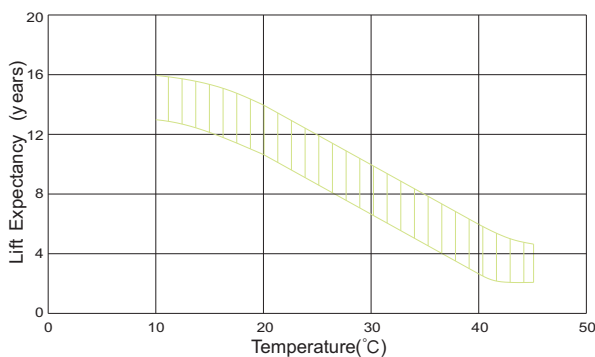
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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

