ROVON POWER

RoveGEL

DG12-100

12V 100Ah

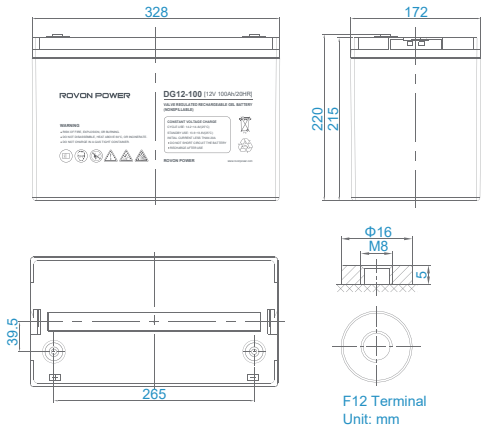
Deep Cycle Gel Valve Regulated Lead Acid Battery

RoveGEL (Deep Cycle GEL) series is pure GEL battery with 15 years floating design life, it is ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented Gel electrolyte, the RoveGEL series offers excellent recovery capability after deep discharge under frequent cyclic discharge use, and can deliver 450 cycles at 100% DOD.



Specification	
Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 30.0 kg (Tolerance ±3.0%)
Internal Resistance	Approx. 7.5 mΩ
Terminal	F5(M8) / F12(M8)
Max. Discharge Current	1000A (5 sec)
Design Life	15 years (floating charge)
Maximum Charging Current	20.0 A
Reference Capacity	C3 68.1Ah C5 78.5Ah C10 87.7Ah C20 100.0Ah
Float Charging Voltage	13.6V~13.8V @25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.2V~14.4V @25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -40°C~60°C Charge: -20°C~50°C Storage: -40°C~60°C
Normal Operating Temperature Range	25°C ± 5°C
Self Discharge	ROVON 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
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 M5 Value
6-7 N*m

Terminal M6 Value
8-10 N*m

Terminal M8 Value
10-12 N*m

Constant Current Discharge Characteristics: A (25°C)

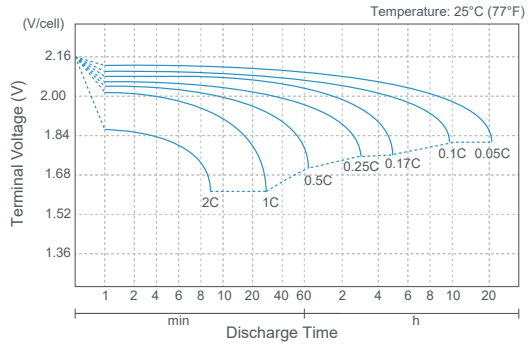
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	185.4	145.0	95.4	55.9	33.4	23.1	19.1	16.1	11.0	9.12	5.50
1.65V	176.4	142.1	93.8	55.6	33.2	23.0	19.0	16.0	10.9	9.03	5.30
1.70V	170.1	139.8	93.0	55.1	32.9	22.8	18.9	15.9	10.8	8.95	5.15
1.75V	158.9	134.7	93.2	54.6	32.7	22.7	18.8	15.7	10.7	8.86	5.00
1.80V	146.6	125.6	92.5	53.3	32.1	22.1	18.3	15.4	10.6	8.77	4.70
1.85V	132.5	114.0	87.4	50.7	30.7	21.1	17.4	14.8	10.1	8.51	4.50

Constant Power Discharge Characteristics: W/cell (25°C)

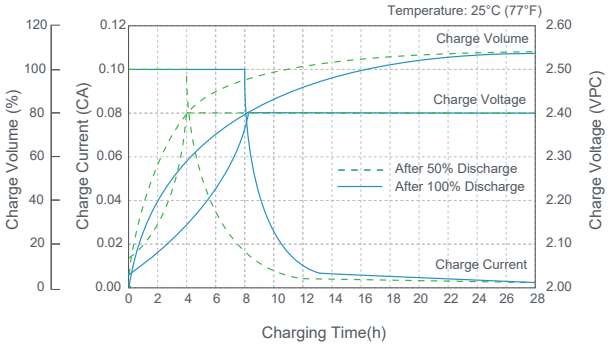
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	329	264	178	108	65.7	45.8	38.0	32.0	21.9	18.2	9.73
1.65V	319	259	176	107	65.3	45.8	37.9	31.9	21.8	18.1	9.56
1.70V	311	256	177	107	64.9	45.6	37.9	31.8	21.6	17.9	9.38
1.75V	293	247	177	106	64.5	45.4	37.5	31.4	21.5	17.7	9.20
1.80V	273	231	176	104	63.6	44.2	36.7	30.9	21.1	17.5	9.03
1.85V	250	211	167	99.2	61.3	42.3	34.9	29.5	20.2	17.0	8.50

DG12-100 12V 100Ah

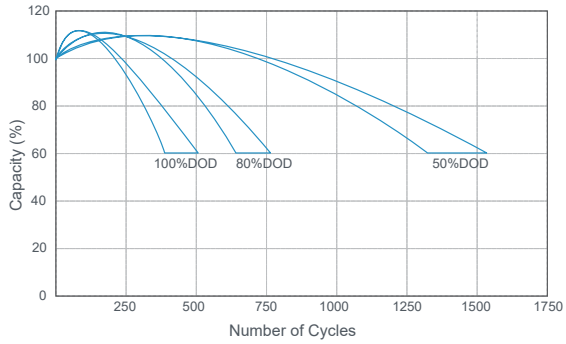
Discharge Characteristics Curve



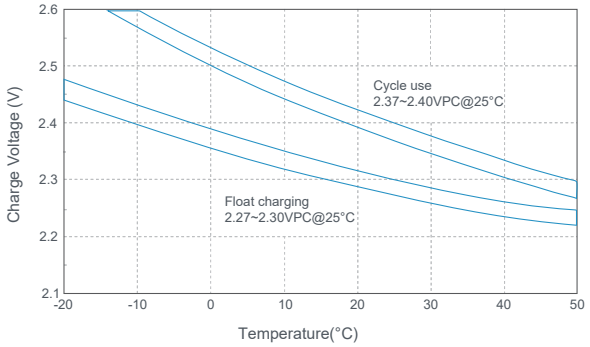
Charge Characteristic Curve for Cycle Use (IU)



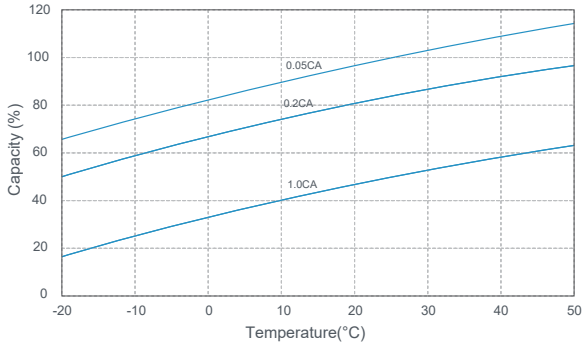
Cycle Life in Relation to Depth of Discharge



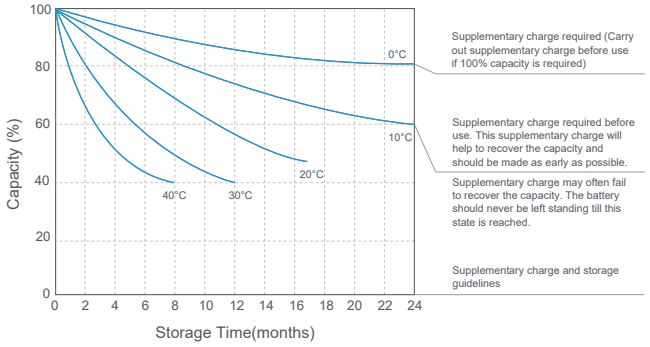
Relationship Between Charging Voltage and Temperature



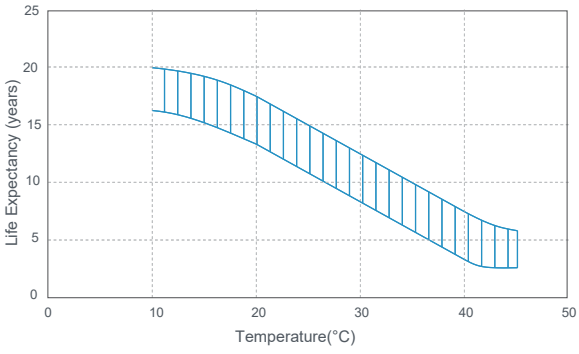
Temperature Effects on Capacity



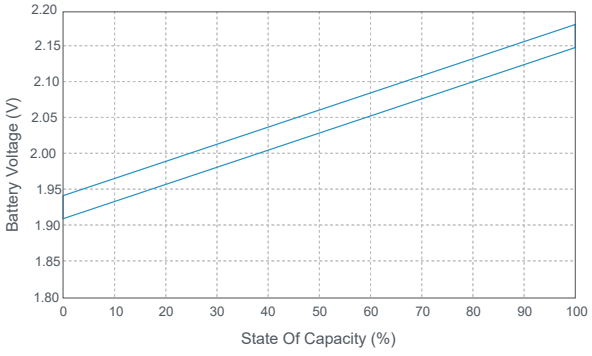
Storage Characteristics



Effect of Temperature on Long Term Life



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



Specifications are subject to change without prior notice. ROVON reserves the right to interpret and update this information.