GEL Deep Cycle Gel Technology Batteries

Upower
Unlimited power

UP Series
GV600-6RE

DEEP CYCLE GEL

ISO 9001 ISO 14001 OHSAS 18001 MH 28539 G4M20206-0910-E-16

Main Features

- UP-GV series is hybrid GEL, especially designed for frequent discharge deep cycle application.
- By using the specially designed, active material, strong grids and thick plate construction, the UP-GV GEL series battery offers reliable performance in higher load situation and could provide competitive cycles performance by patented GEL technology.
- It is suitable for Electric Vehicle and Golf cart, Floor Machines, Forklifts, Aerial lifts, Robotics, Marine, RV, Mobility and Medical Equipment, Solar Energy System and most outdoor application.

Technical Specifications

Cells Per Unit	3
Voltage Per Unit	6
Capacity	424Ah @ 10hr-rate to 1.80V per cell @ 25°C
Weight	Approx. 57.0Kg (Tolerance ± 3%)
Internal Resistance	Approx. 1.1mΩ
Terminal	F14 (M8) / F22 (M8)
Maximum Discharge Current	4000A (5 sec)
Cold Cranking Ampere (CCA)	800A
Maximum Charging Current	120A
Reference Capacity	C3 309.9Ah
	C5 349.5Ah
	C10 424.0Ah
	C100 600.0Ah
Standby Use Voltage	6.8V ~ 6.9V @ 25°C Temperature Compensation: -3 mV / °C / Cell
Cycle Use Voltage	7.3V ~ 7.4V @ 25°C Temperature Compensation: -4 mV / °C / Cell
Operating Temperature Range	Discharge: -20°C ~ 60°C
	Charge: 0°C ~ 50°C
	Storage: -20°C ~ 60°C
Normal Operating Temperat. Range	25°C ± 5°C
Self Discharge	Upower 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.

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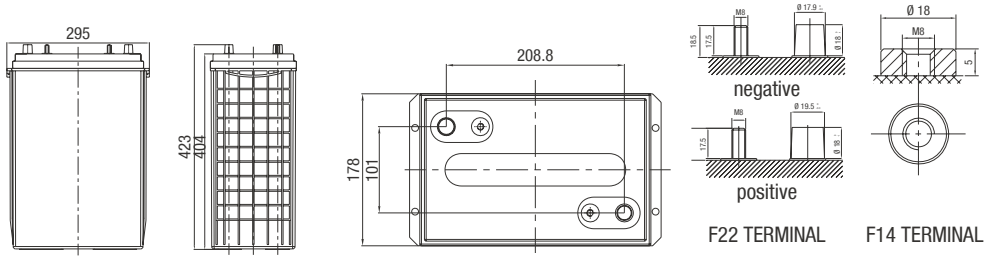
Battery Dimensions

Length	295 ± 2mm (11.6 inches)
Width	178 ± 2mm (7.01 inches)
Height	404 ± 2mm (15.9 inches)
Total Height	423 ± 2mm (16.7 inches)
Terminal	Value
M5	6 ~ 7 N*m
M6	8 ~ 10 N*m
M8	10 ~ 12 N*m



Battery Discharge Tables

Constant Current Discharge Characteristics: A (25ºC)									
F.V / Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	424.5	246.8	145.8	112.9	88.8	75.5	50.8	42.2	22.1
1.65 V	407.5	238.4	141.1	109.4	86.4	73.6	50.2	41.7	21.7
1.70 V	389.5	230.6	136.5	106.5	84.0	71.7	49.4	41.1	21.5
1.75 V	372.3	222.2	131.7	103.3	81.9	69.9	48.7	40.5	21.2
1.80 V	355.8	213.7	127.0	100.1	79.5	68.1	47.9	40.0	21.0
1.85 V	306.5	191.7	116.3	92.5	73.9	63.5	45.0	37.7	19.9

Constant Power Discharge Characteristics: WPC (25ºC)									
F.V / Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	770.9	463.9	276.2	215.7	170.4	145.6	99.1	83.0	43.5
1.65 V	747.9	450.5	268.7	209.9	166.4	142.4	98.2	82.1	42.8
1.70 V	722.0	438.6	261.3	205.1	162.5	139.1	96.9	80.9	42.4
1.75 V	697.2	425.1	253.4	199.8	158.9	136.1	95.8	80.0	41.9
1.80 V	673.1	411.2	245.5	194.4	154.9	133.1	94.4	79.0	41.5
1.85 V	585.5	371.1	226.2	180.5	144.6	124.5	88.8	74.5	39.5

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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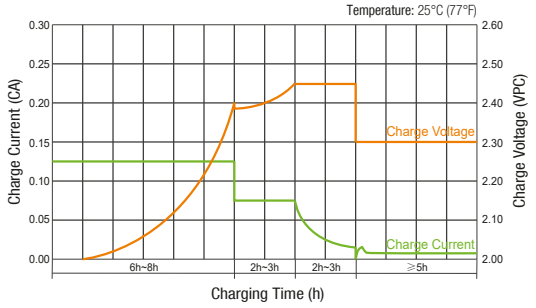
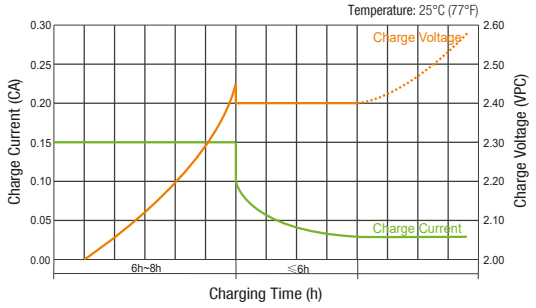
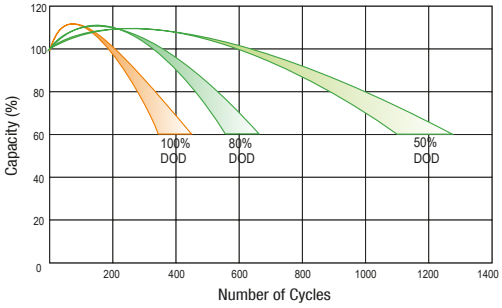
Charge Characteristic Curve for Cycle Use (IIUU)



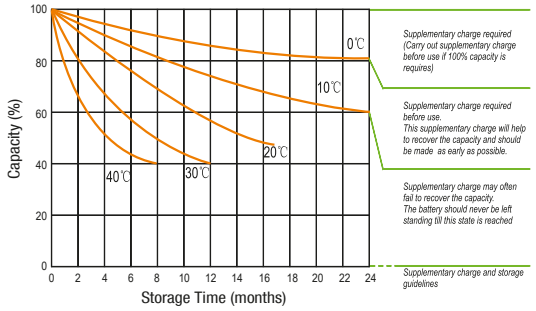
Charge Characteristic Curve for Cycle Use (IUI)



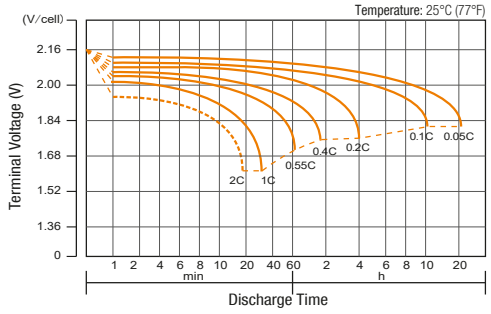
Cycle Life in Relation to Depth of Discharge



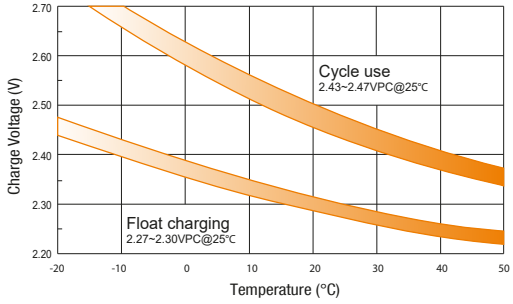
Storage Characteristics



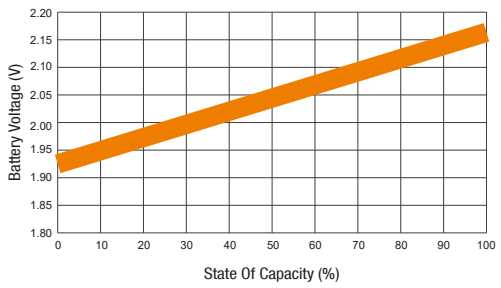
Discharge Characteristics Curve



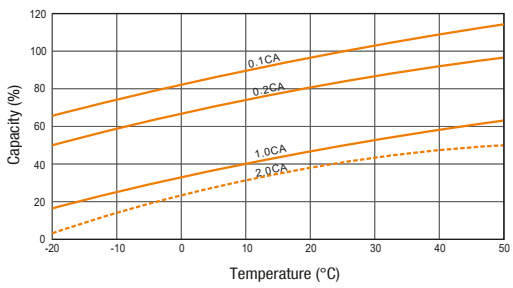
Relationship Between Charging Voltage and Temperature



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



Temperature Effects on Capacity



Note: All above information shall be changed without prior notice, Master Battery reserves the right to explain and update the latest information.

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