

# Valve Regulated GEL Battery

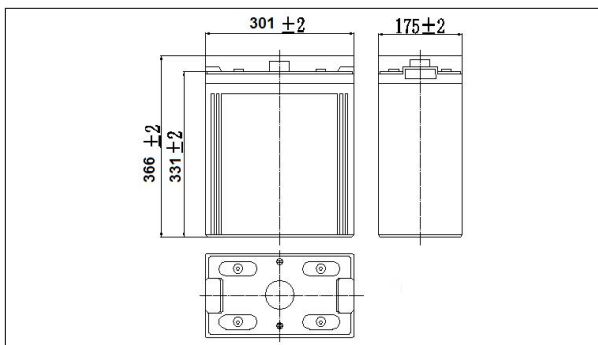
## GPG600-2 2V 600AH



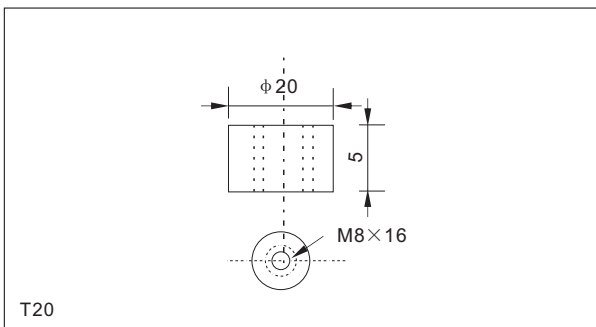
### Specifications

Nominal Voltage	2V	
Rated capacity (10 hour rate)	600Ah	
Dimensions	Length	301±2mm(11.85inch)
	Width	175±2mm(6.89inch)
	Height	331±2mm(13.03inch)
	Total Height	366±2mm(14.41inch)
Approx. Weight	38kg(83.6lbs)±3%	

### Outer dimensions (mm)



### Terminal Type (mm)



### Characteristics

Capacity (25°C)	10HR(1.8V)	600Ah
	3HR(1.80V)	453Ah
	1HR(1.75V)	335Ah
Terminal type		T20
Internal resistance (Fully charged, 25°C)		Approx. 0.5m Ω
Capacity affected by temperature (20HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 months	Remaining Capacity:91%
	6 months	Remaining Capacity:82%
	12 months	Remaining Capacity:65%
Nominal operating temperature		25°C ±3°C(77°F ±5°F)
Operating temperature range	Discharge	-15°C~50°C(5°F~122°F)
	Charge	-10°C~50°C(14°F~122°F)
	Storage	-20°C~50°C(-4°F~122°F)
Float charging voltage(25°C)		2.25 to 2.30V Temperature compensation: -3mV/°C
Cyclic charging voltage(25°C)		2.40 to 2.45V Temperature compensation: -5mV/°C
Maximum charging current		120A
Maximum discharge current		3600A(5 sec.)
Designed floating life(20°C)		15 years

### Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Gel	Rubber	Copper

### Constant Current Discharge Characteristics Unit:A(25°C,77°F)

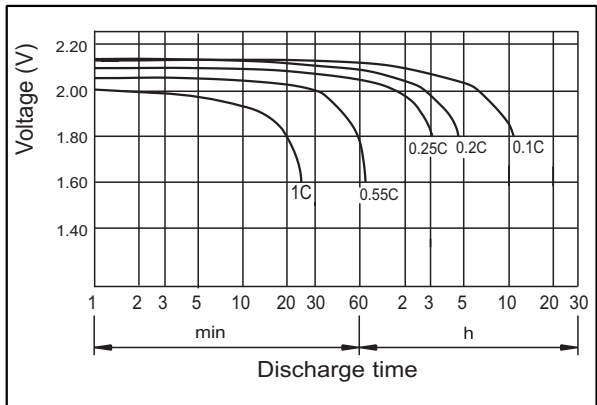
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	750	522	360	216	157	124	103	90.6	72.2	61.1	32.1
1.65V	732	512	353	215	156	123	102	90.0	71.8	61.0	32.0
1.70V	705	496	342	213	155	122	102	89.4	71.3	60.8	31.9
1.75V	681	484	335	210	154	121	101	88.8	70.8	60.4	31.7
1.80V	645	466	324	204	151	118	97.8	86.1	68.7	60.0	31.5

### Constant Power Discharge Characteristics Unit:W(25°C,77°F)

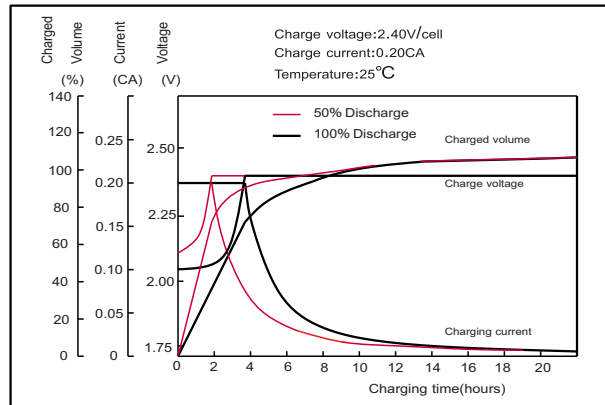
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	1373	976	684	417	307	242	203	178	144	122	64.1
1.65V	1340	957	670	415	305	241	201	177	143	121	64.0
1.70V	1290	927	650	411	303	239	200	176	142	121	63.8
1.75V	1246	905	636	405	301	238	199	175	141	120	63.4
1.80V	1180	872	616	395	295	230	193	170	137	119	63.0

Note: The above characteristics data can be obtained within three charge or discharge cycles.

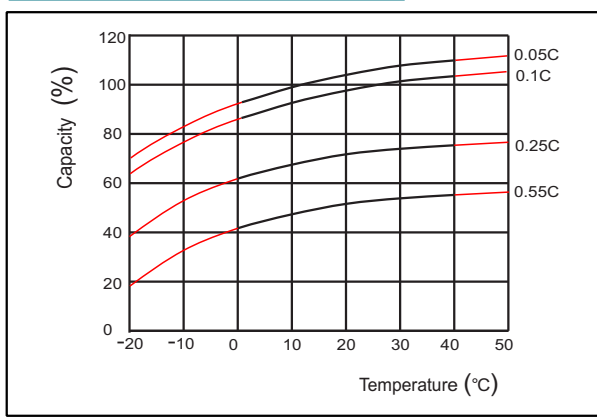
### Discharge characteristics(25°C)



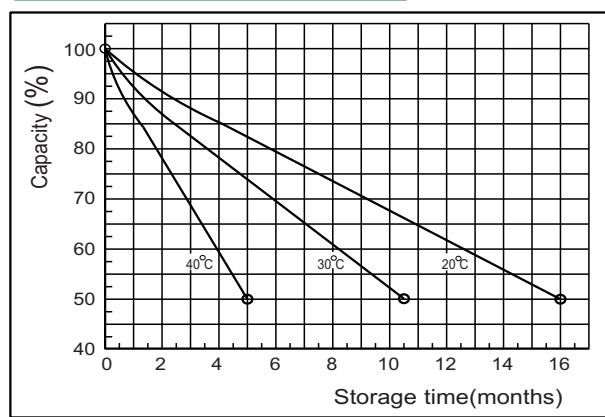
### Charging characteristics



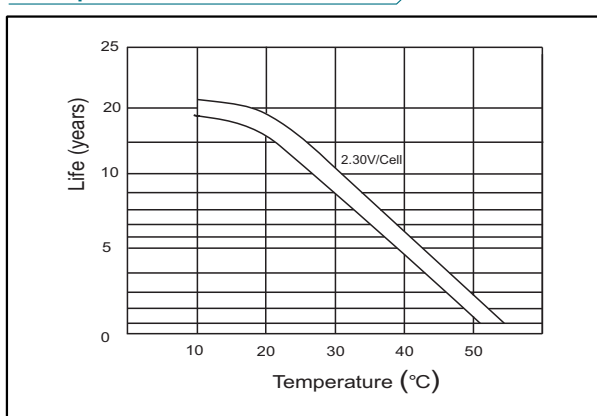
### Effect of Temperature on Capacity



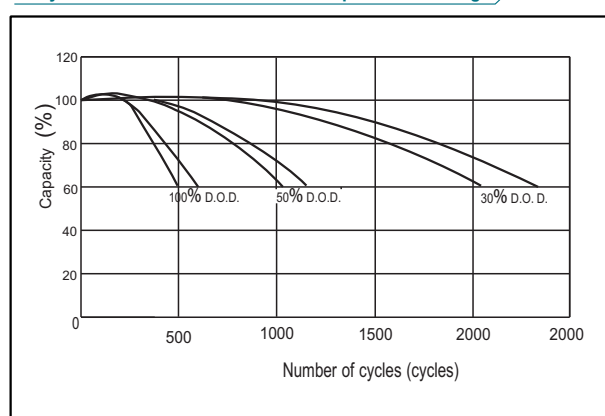
### Self-discharge characteristics



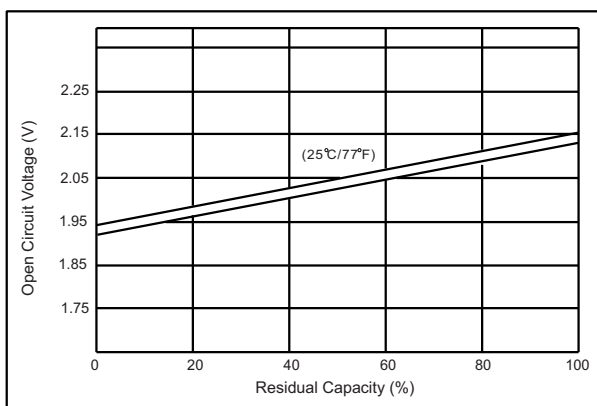
### Temperature effects on float life



### Cycle service life in relation to depth of discharge



### The relationship for OCV and Capacity (25°C)



### The relationship for Charging voltage and Temperature

