

# Valve Regulated Deep Cycle Battery

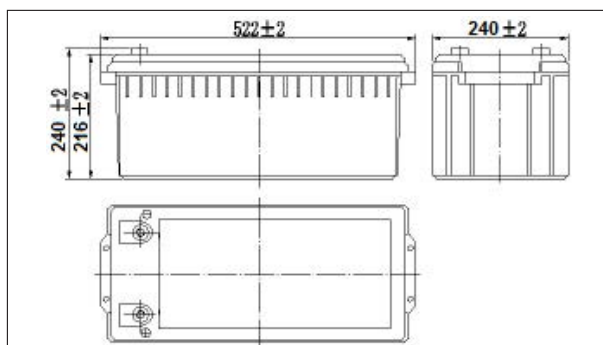
## GPD210-12 12V 210AH

### Specifications

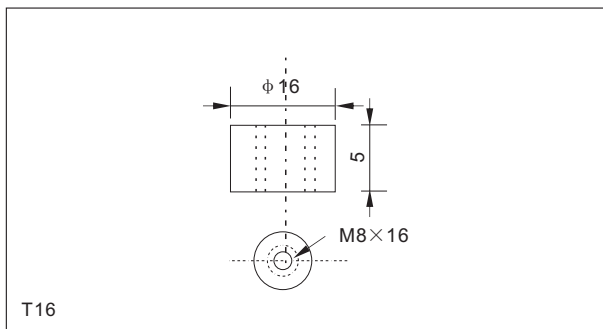
Nominal Voltage	12V	
Rated capacity (10 hour rate)	210Ah	
Dimensions	Length	522±2mm(20.55inch)
	Width	240±2mm(9.45inch)
	Height	216±2mm(8.5inch)
	Total Height	240±2mm(9.45inch)
Approx. Weight	60kg(132.2lbs)±3%	



### Outer dimensions (mm)



### Terminal Type (mm)



### Characteristics

Capacity (25°C)	10HR(10.8V)	210Ah
	3HR(10.8V)	157.5Ah
	1HR(10.5V)	119Ah
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 3.5m Ω
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3month	Remaining Capacity:91%
	6month	Remaining Capacity:82%
	12month	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)	13.50 to 13.80V	Temperature compensation: -18mV/°C
Cyclic charging voltage(25°C)	14.50 to 15.00V	Temperature compensation: -30mV/°C
Maximum charging current	63A	
Terminal material	Copper	
Maximum discharge current	1470A(5 sec.)	
Designed floating life(20°C)	10years	

### Construction

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

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

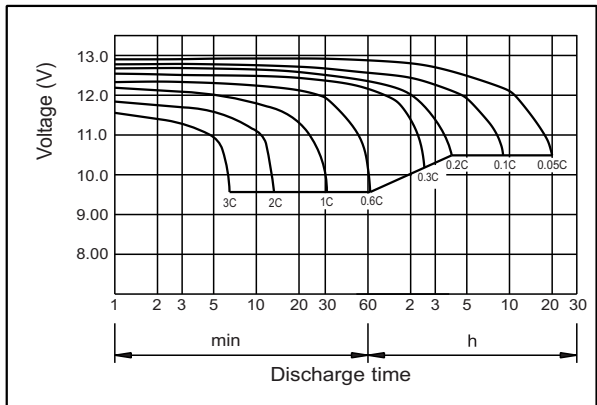
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	346	215	128	77.5	55.0	43.8	37.4	32.7	25.7	21.5	11.7
9.90V	338	211	126	77.0	54.7	43.6	37.2	32.5	25.5	21.4	11.6
10.2V	326	205	123	76.4	54.4	43.3	37.0	32.3	25.4	21.3	11.5
10.5V	315	200	119	75.3	54.0	43.0	36.8	32.1	25.2	21.1	11.3
10.8V	309	193	115	73.5	52.5	42.0	35.7	31.2	24.6	21.0	11.2

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

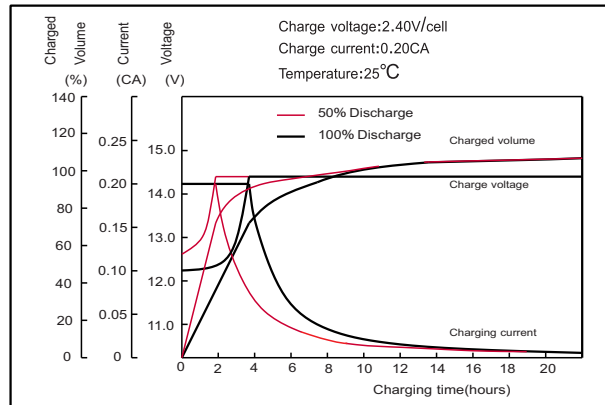
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	3848	2355	1471	886	650	516	445	387	307	272	143
9.90V	3760	2310	1450	881	646	513	443	385	306	270	141
10.2V	3627	2242	1417	874	642	512	440	382	304	268	139
10.5V	3509	2191	1374	861	636	509	437	380	301	266	138
10.8V	3332	2114	1332	840	618	494	425	369	293	264	136

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

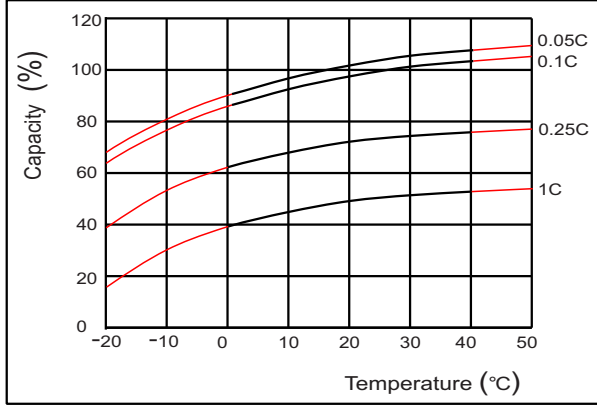
● Discharge characteristics(25°C)



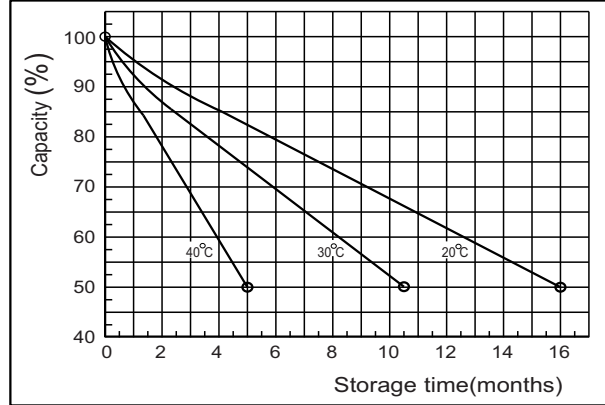
● Charging characteristics (25°C)



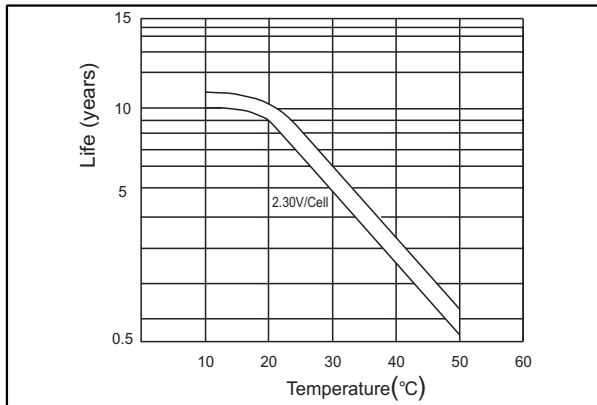
● Temperature effects on Capacity



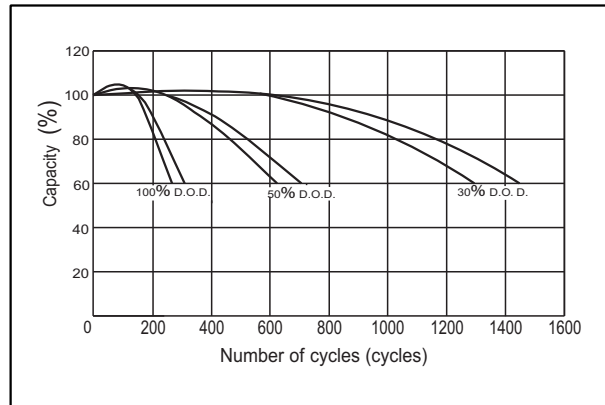
● Self-discharge characteristics



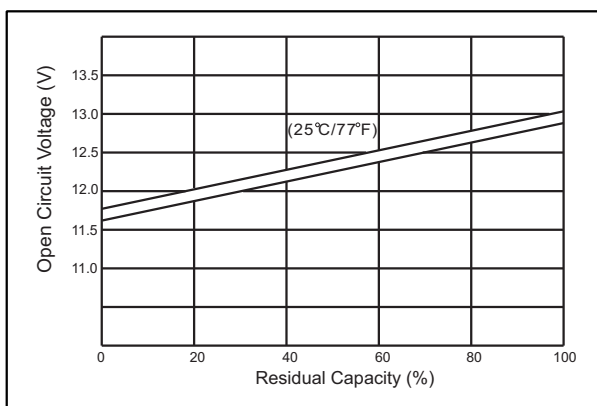
● Floating life on Temperature



● Cycle life on D.O.D (25°C)



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



● The relationship for Charging voltage and Temperature

