

# BG-640

(6V 4.0Ah/20hr)

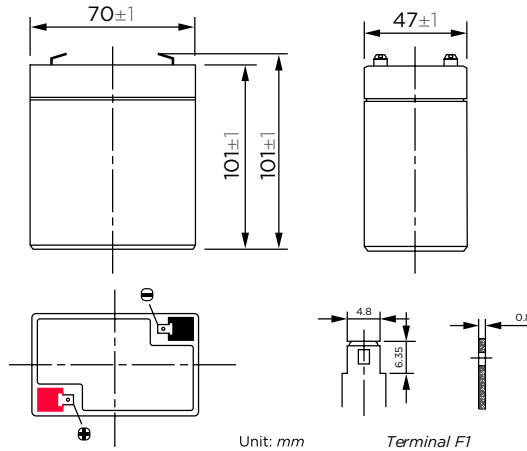
Rechargeable Sealed Lead Acid Battery



Technical Specification Sheet



These rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.



## Performance Characteristics

<b>Capacity 77°F(25°C)</b>	20 hour rate (0.2A, 5.25V)	4.0Ah
	5 hour rate (0.7A, 5.25V)	3.5Ah
	1 hour rate (2.5A, 4.8V)	2.5Ah
<b>Internal Resistance</b>	Full charged Battery 77°F(25°C)	35mΩ
<b>Capacity affected by Temperature (20 hour rate)</b>	104°F(40°C)	102%
	77°F(25°C)	100%
	32°F(10°C)	85%
	5°F(-15°C)	65%
<b>Self-Discharge 68°F(20°C)</b>	Capacity after 3 month storage	90%
	Capacity after 6 month storage	80%
	Capacity after 12 month storage	60%
<b>Max. discharge current 77°F(25°C)</b>		60 A(5 S)
<b>Charge (Constant Voltage)</b>	Float: 6.80-6.90 V/77°F/(25°C)	
	Cycle: 7.25-7.45 V/77°F/(25°C)	
	Max. Current: 1A	

## Discharge Constant Current (Amperes at 77°F 25°C)

FV/Time	5 min	10 min	15 min	30 min	1h	3h	5h	10h	20h
1.60V	14.0	8.65	7.05	4.10	2.50	1.15	0.72	0.39	0.21
1.65V	13.2	8.15	6.70	3.93	2.41	1.10	0.72	0.39	0.21
1.70V	12.4	7.72	6.39	3.75	2.32	1.05	0.71	0.38	0.20
1.75V	11.6	7.31	6.10	4.56	2.25	1.00	0.70	0.38	0.20
1.80V	10.9	6.95	5.79	3.39	2.14	0.95	0.68	0.37	0.19

## Discharge Constant Power (Watts at 77° F25°C)

FV/Time	5 min	10 min	15 min	30 min	1h	3h	5h	10h	20h
1.60V	26.8	16.7	13.3	8.33	4.83	1.86	1.22	0.80	0.45
1.65V	25.1	15.7	12.6	7.92	4.63	1.82	1.20	0.79	0.43
1.70V	23.5	14.7	11.9	7.49	4.42	1.77	1.18	0.78	0.42
1.75V	21.8	13.8	11.2	7.05	4.20	1.71	1.16	0.77	0.41
1.80V	20.2	12.8	10.4	6.62	3.97	1.66	1.13	0.76	0.39

## Battery Construction

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

## SPECIFICATION

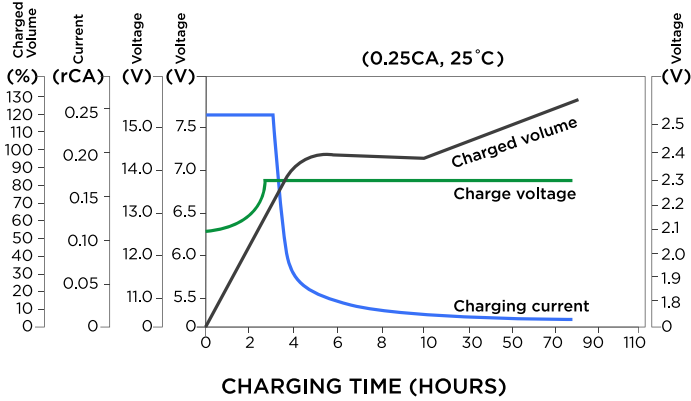
Nominal voltage	6V
Number of cells	3
Design life	5 years
Length (mm/inch)	70/2.76
Width (mm/inch)	47/1.85
Height (mm/inch)	101/3.98
Total Height	107/4.21
Approx. Weight	0.65/1.43

## General Features

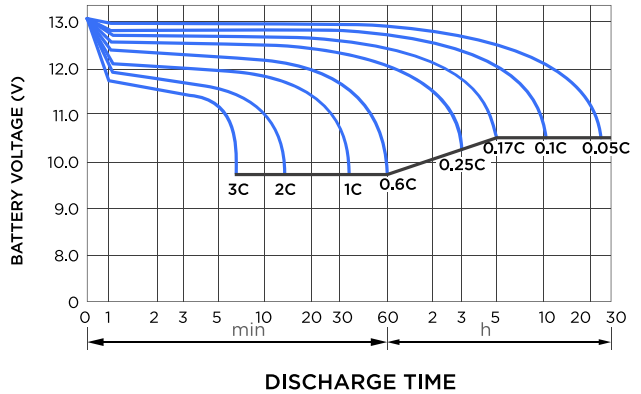
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.



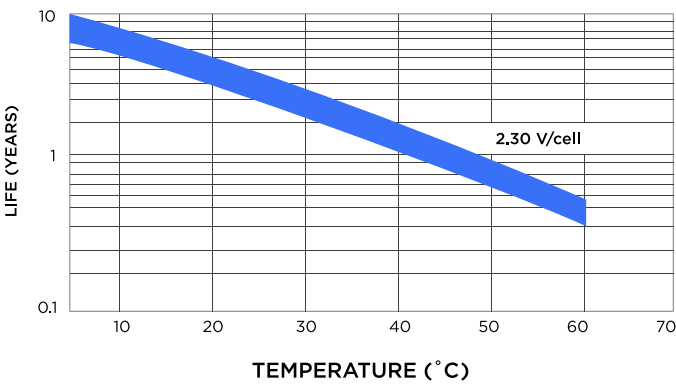
### Charge characteristic curve



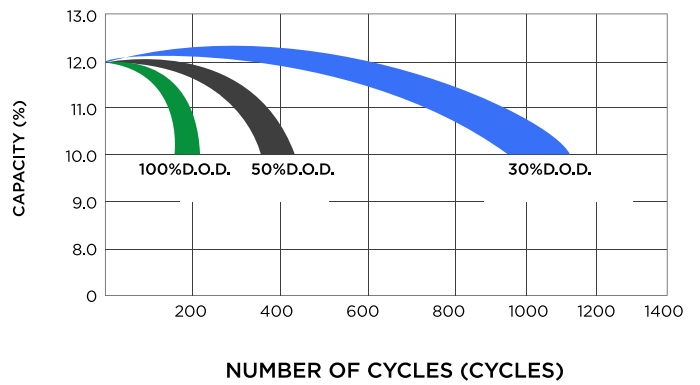
### Discharge characteristic (25°C)



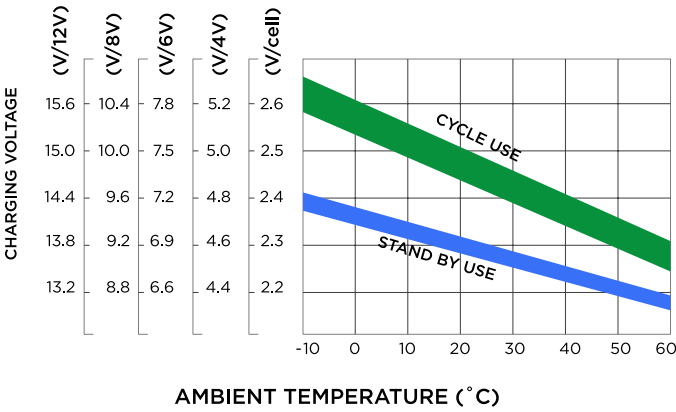
### Temperature effects on float life



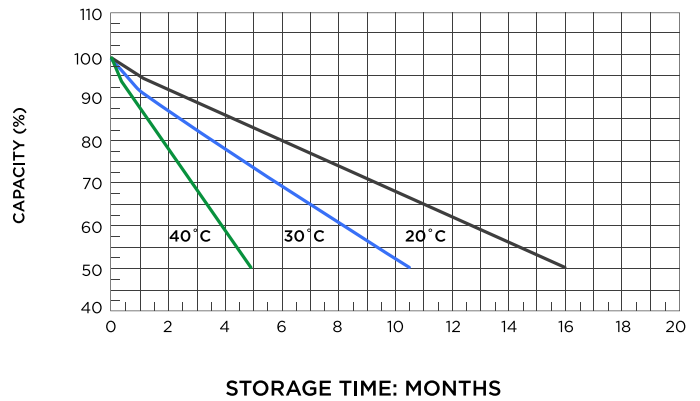
### Cycle service life in relation to depth of discharge



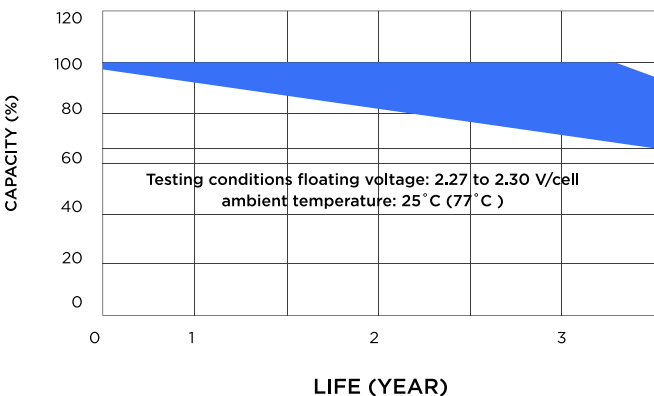
### Relationship between charging voltage and temperature



### Self-discharge characteristic



### Life characteristics of standby use



### Temperature effects on capacity

