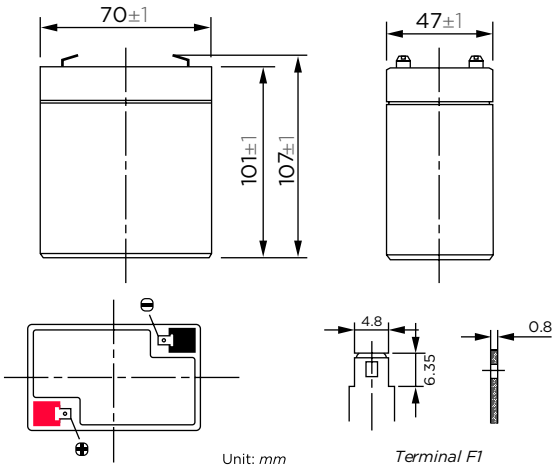
BatteryCenter™
Your Replacement Battery Source

BC-645F1

Rechargeable Sealed Lead Acid Battery

(6V 4.5Ah/20hr)





Unit: *mm*

Terminal F1

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.

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
Length (mm/inch) 70/2.76
Width (mm/inch) 47/1.85
Height(mm/inch).....101/3.98
Total Height (mm/inch).....107/4.21
Approx.Weight (kg/lbs).....0.75/1.65

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.

Performance Characteristics

Capacity 77°F(25°C)	20 hour rate (0.2A, 5.25V)	4.5Ah
	5 hour rate (0.7A, 5.25V)	3.9Ah
	1 hour rate (2.5A, 4.8V)	2.8Ah
Internal Resistance	Full charged Battery77°F(25°C):30mΩ	
Capacity affected by Temperature (20 hour rate)	104°F(40°C)	102%
	77°F(25°C)	100%
	32°F(10°C)	85%
	5°F(-15°C)	65%
Self-Discharge 68°F(20°C)	Capacity after 3 month storage	90%
	Capacity after 6 month storage	80%
	Capacity after 12month storage	60%
Max. discharge current 77°F(25°C): 67.5A(5S)		
Charge (Constant Voltage)	Float: 6.80~6.90 V/77°F/(25°C)	
	Cycle: 7.25~7.45 V/77°F/(25°C) Max. Current: 1.13A	

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

End Points Volts/Cell	5 min	10 min	15 min	30 min	1h	3h	5h	10h	20h
1.60V	15.8	11.0	8.90	4.80	2.80	1.25	0.87	0.46	0.23
1.65V	15.0	10.5	8.52	4.62	2.70	1.20	0.84	0.45	0.23
1.70V	14.1	10.1	8.10	4.40	2.60	1.15	0.81	0.44	0.23
1.75V	13.3	9.58	7.65	4.23	2.50	1.10	0.78	0.43	0.22
1.80V	12.4	9.00	7.20	3.95	2.40	1.05	0.75	0.42	0.22

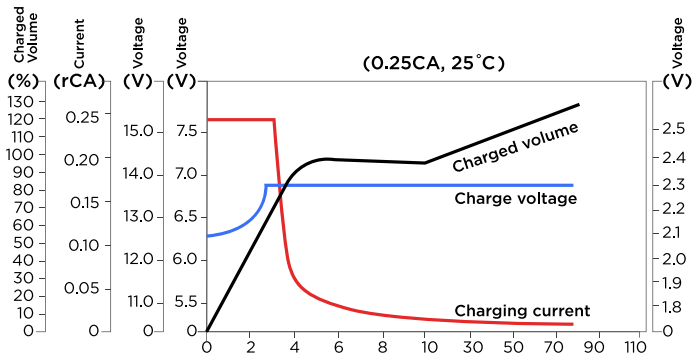
Discharge Constant Power (Watts at 77°F 25°C)

End Points Volts/Cell	5 min	10 min	15 min	30 min	1h	3h	5h	10h	20h
1.60V	31.7	22.2	17.6	9.50	5.33	2.45	1.56	0.90	0.52
1.65V	29.7	20.9	16.6	9.03	5.11	2.39	1.54	0.89	0.49
1.70V	27.7	19.6	15.7	8.54	4.87	2.33	1.51	0.88	0.48
1.75V	25.8	18.3	14.7	8.04	4.63	2.26	1.47	0.87	0.46
1.80V	23.9	17.1	13.7	7.54	4.38	2.18	1.44	0.86	0.44

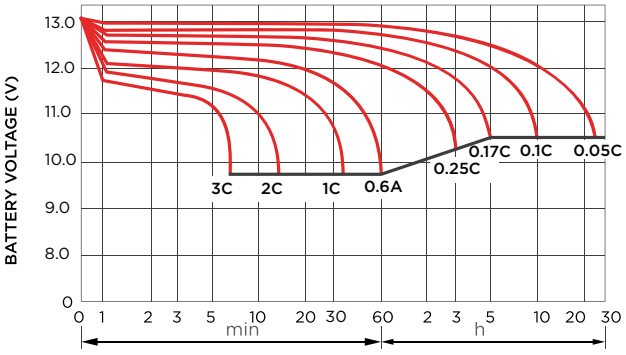
(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

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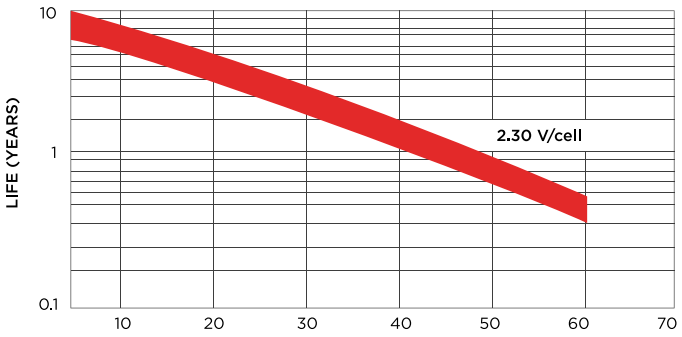
Charge characteristic curve



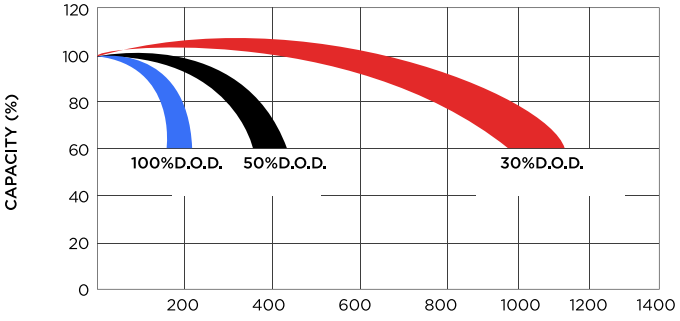
Discharge characteristic (25°C)



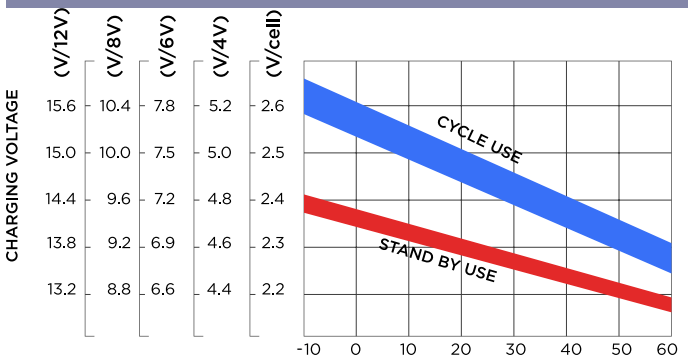
Temperature effects on float life



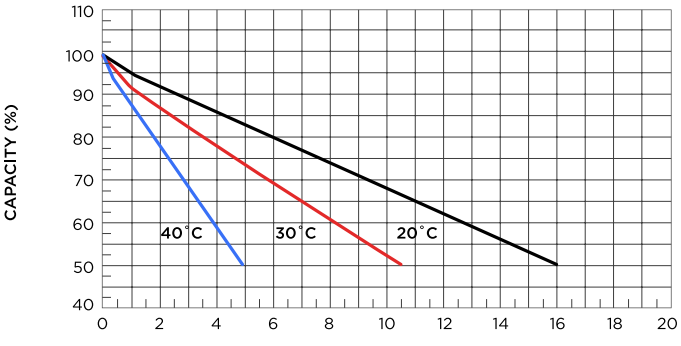
Cycle service life in relation to depth of discharge



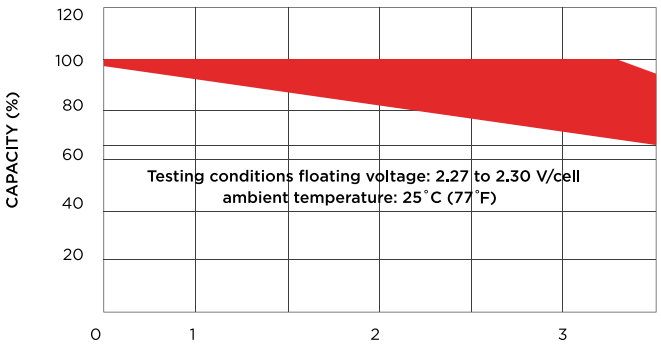
Relationship between charging voltage and temperature



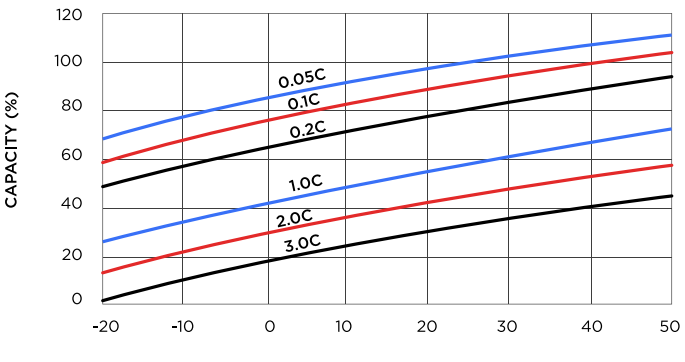
Self-discharge characteristic



Life characteristics of standby use



Temperature effects on capacity



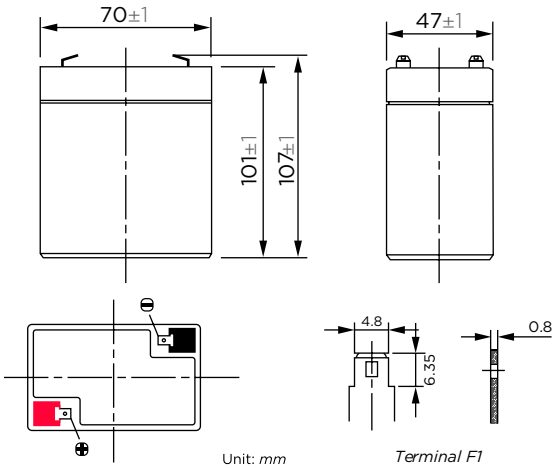
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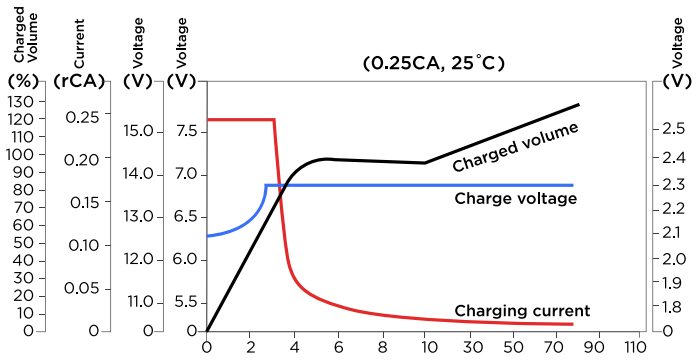
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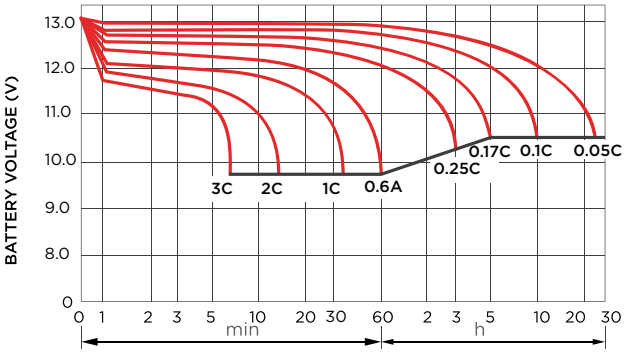
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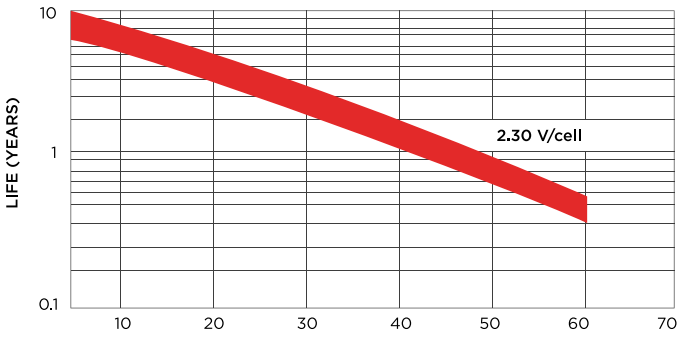
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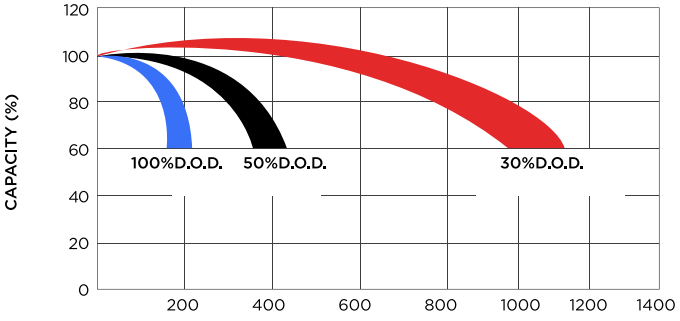
Discharge characteristic (25°C)



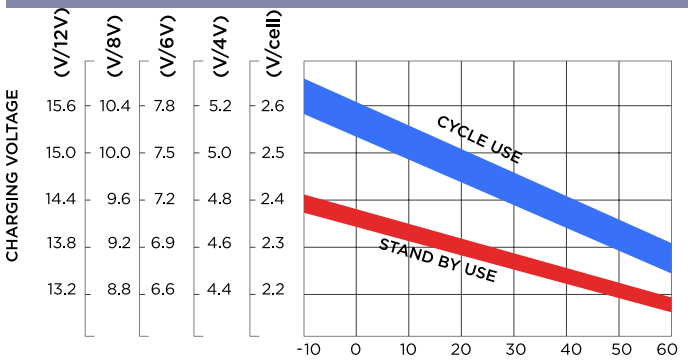
Temperature effects on float life



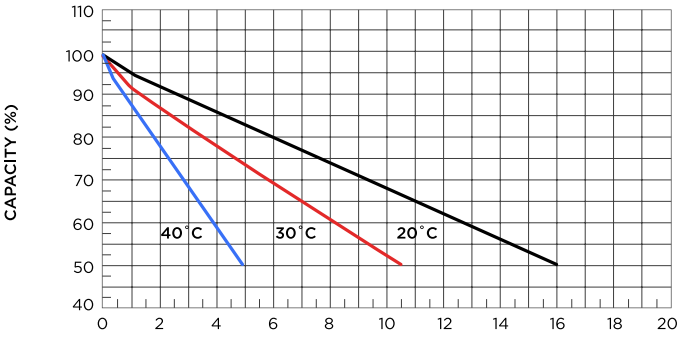
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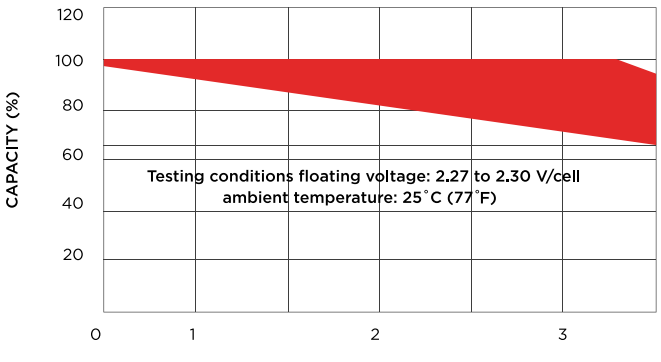
Relationship between charging voltage and temperature



Self-discharge characteristic



Life characteristics of standby use



Temperature effects on capacity

