

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates 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.

GENERAL FEATURES

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

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 |

TECHNOLOGY PARAMETER

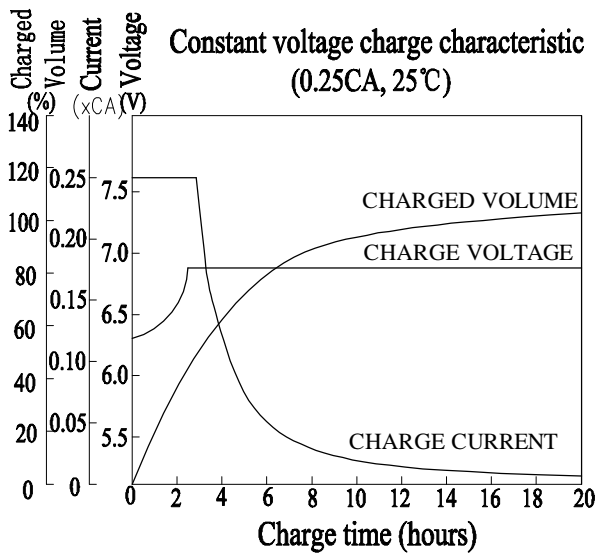
| | | | | |
|-------------------------------|---|--------------------|-------------------|------------------|
| Battery model | CP690 | | | |
| Nominal voltage | 6V | | | |
| Number of cell | 3 | | | |
| Capacity (25°C) | 20hR(0.45A, 5.25V) | 10hR(0.84A, 5.25V) | 5hR(1.54A, 5.25V) | 1hR(6.3A, 4.80V) |
| | 9Ah | 8.4Ah | 7.7Ah | 6.3Ah |
| Dimensions | Length | Width | Height | Total Height |
| | 151±1mm | 34±1mm | 94±1mm | 100±1mm |
| Approx. weight | 1.43Kg (3.15 lbs) | | | |
| Internal resistance | Full charged at 25°C: 12mOhms | | | |
| Self discharge | 3% of capacity declined per month at 20°C (average) | | | |
| Operating temperature range | Discharge | Charge | Storage | |
| | -20~60°C | -10~60°C | -20~60°C | |
| Max. discharge current (25°C) | 135A (5s) | | | |
| Short circuit current | 450A | | | |

Constant current discharge rating-amperes at 25°C(77°F)

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|----------------------|------|-------|-------|-------|------|------|------|------|------|
| 1.60V | 34.3 | 22.0 | 17.5 | 10.0 | 6.30 | 2.57 | 1.67 | 0.89 | 0.47 |
| 1.65V | 32.5 | 20.9 | 16.7 | 9.60 | 6.07 | 2.49 | 1.63 | 0.88 | 0.46 |
| 1.70V | 30.7 | 19.9 | 15.9 | 9.18 | 5.83 | 2.40 | 1.59 | 0.86 | 0.46 |
| 1.75V | 28.8 | 18.7 | 15.1 | 8.74 | 5.57 | 2.30 | 1.54 | 0.84 | 0.45 |
| 1.80V | 26.8 | 17.6 | 14.3 | 8.28 | 5.31 | 2.20 | 1.49 | 0.82 | 0.44 |

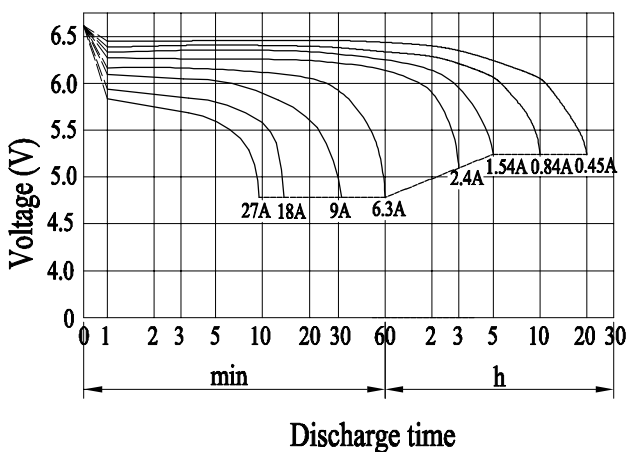
Constant power discharge rating-watts per cell at 25°C(77°F)

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h |
|----------------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60V | 65.8 | 42.0 | 34.4 | 19.7 | 14.8 | 11.6 | 6.65 | 5.11 | 3.28 |
| 1.65V | 61.7 | 39.6 | 32.6 | 18.7 | 14.2 | 11.1 | 6.45 | 4.98 | 3.22 |
| 1.70V | 57.6 | 37.1 | 30.7 | 17.7 | 13.4 | 10.6 | 6.23 | 4.85 | 3.16 |
| 1.75V | 53.6 | 34.7 | 28.8 | 16.7 | 12.7 | 10.0 | 5.98 | 4.70 | 3.09 |
| 1.80V | 49.6 | 32.2 | 26.9 | 15.6 | 12.0 | 9.49 | 5.73 | 4.54 | 3.02 |

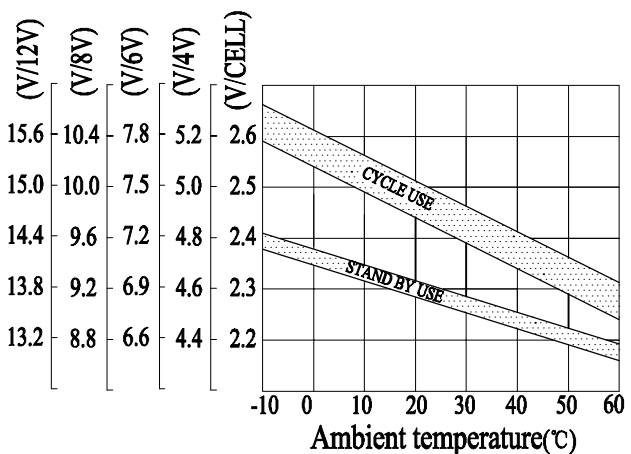


CHARGE METHODS: Constant voltage charging at 25°C
 Standby use: No charge current limit is required
 Charge voltage: 6.8--6.9Volts
 Cyclic use: Maximum charge current: 40% of rated capacity
 Charge voltage: 7.25--7.45Volts
 Temperature compensation :
 Standby use: -10mV/°C; Cyclic use: -15mV/°C.

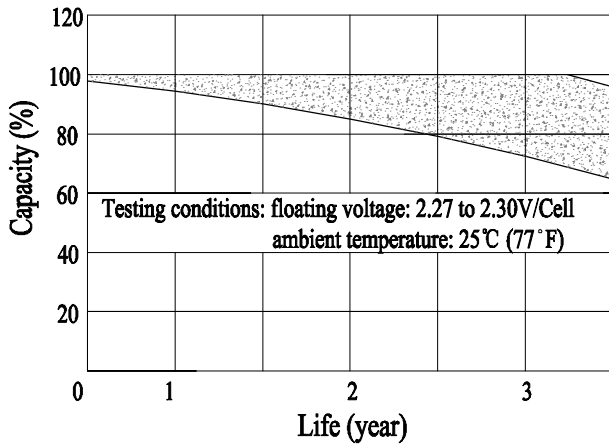
Discharge characteristic (25°C)



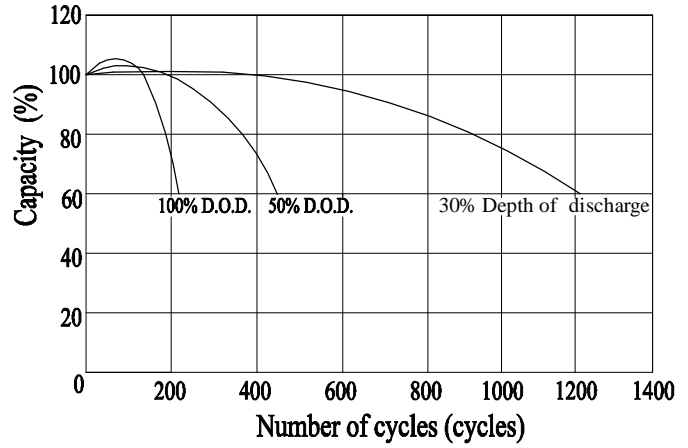
Relationship between charge voltage and temperature



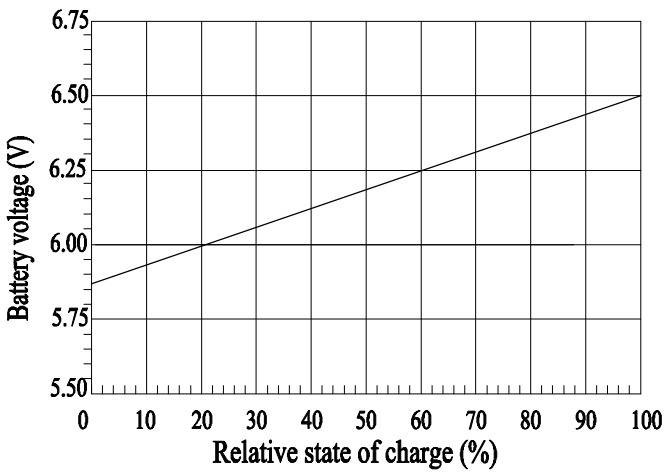
Life characteristics of standby use



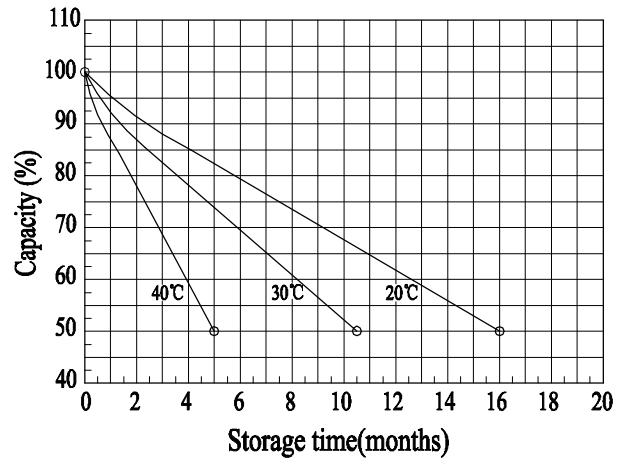
Cycle service life in relation to depth of discharge



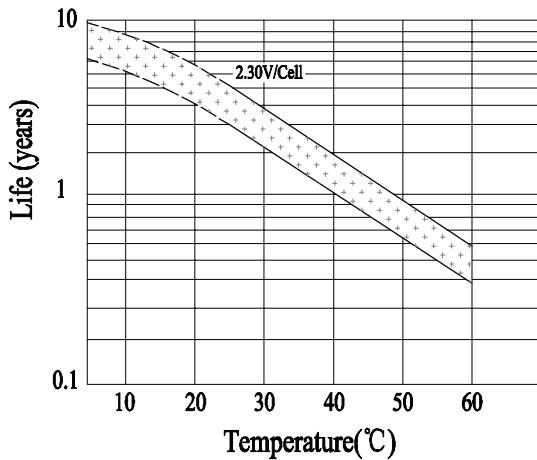
Relationship of OCV and state of charge (25°C)



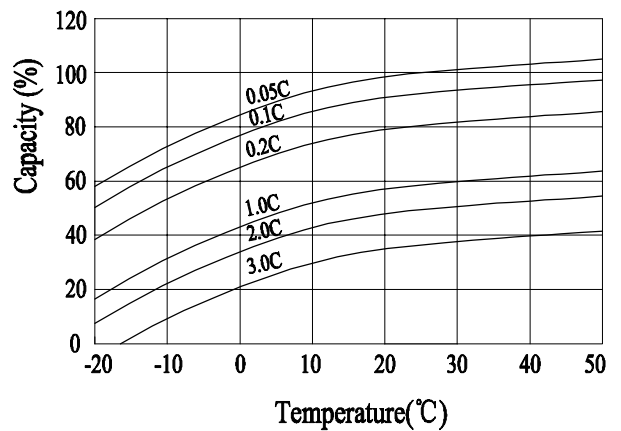
Self-discharge characteristic



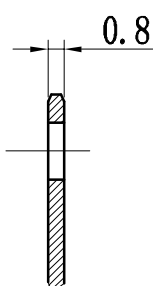
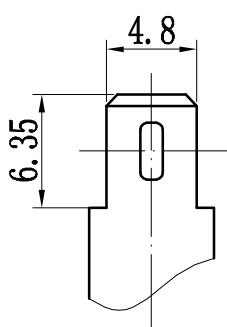
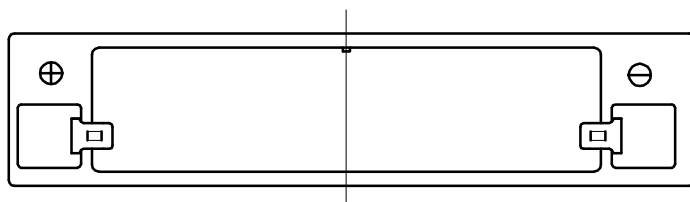
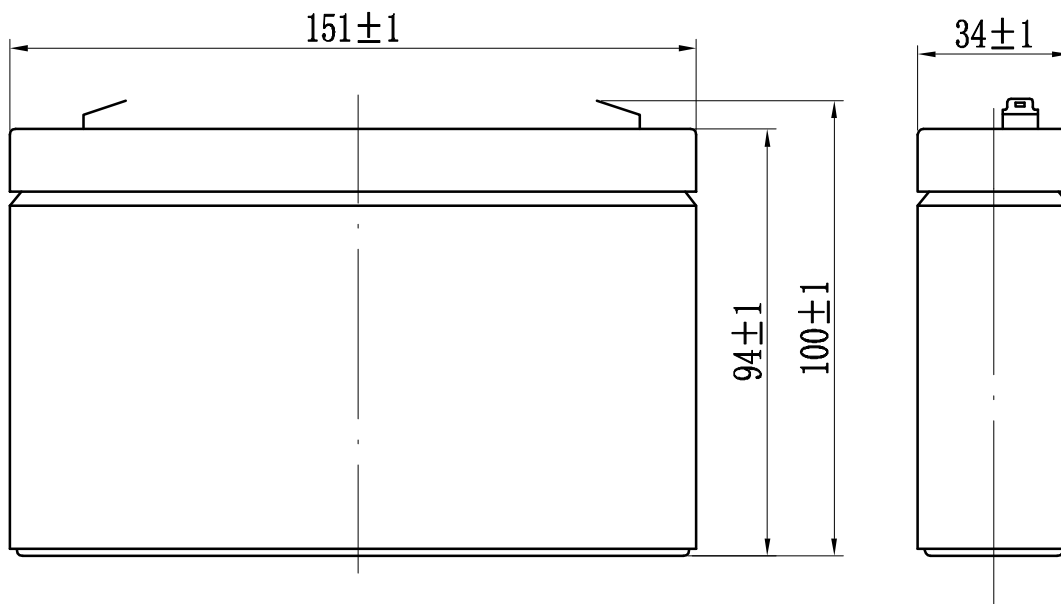
Temperature effects on float life



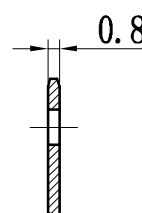
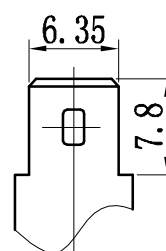
Temperature effects on capacity



Battery and terminal dimensions



terminal
F1 (0.187)



terminal (optional)
F2 (0.250)