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

- 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.
- 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

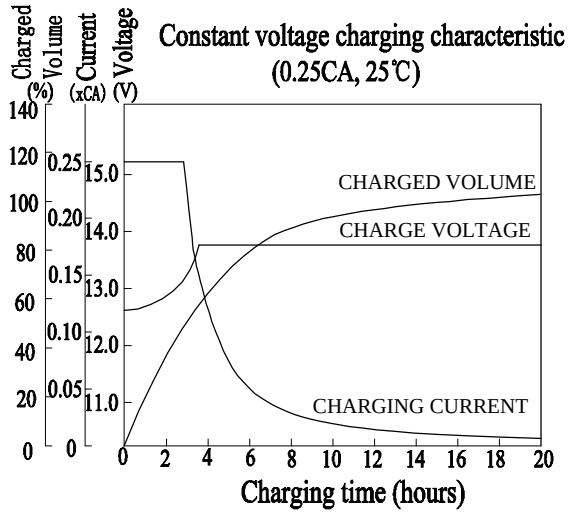
Battery model	6FM75D-X			
Nominal voltage	12V			
Number of cell	6			
Capacity (25℃)	10hR(7.5A, 10.8V)	5hR(13.4A, 10.5V)	1hR(49.5A, 9.60V)	
	75Ah	67Ah	49.5Ah	
Dimensions	Length	Width	Height	Total Height
	258±1mm	166±1mm	206±1mm	215±1mm
Approx. weight	24.0Kg(52.9lbs)			
Internal resistance	Full charged at 25℃: 5.7mOhms			
Self discharge	3% of capacity declined per month at 20℃ (average)			
Operating temperature range	Discharge	Charge	Storage	
	-20～60℃	-10～60℃	-20～60℃	
Max. discharge current (25℃)	700A (5s)			
Short circuit current	1800A			

Constant current discharge ratings-amperes at 25℃(77 °F)

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	3h	5h	10h
1.60V	228	171	133	79.8	60.5	49.5	21.6	14.2	7.67
1.65V	211	162	127	76.3	55.3	46.8	21.2	14.0	7.65
1.70V	196	152	118	75.1	53.9	46.2	20.8	13.8	7.60
1.75V	185	145	114	71.8	52.6	44.6	20.4	13.4	7.55
1.80V	171	133	109	71.3	52.2	42.8	19.6	13.2	7.50

Constant power discharge ratings-watts per cell at 25℃(77 °F)

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	392	301	239	154	118	94.3	53.4	39.8	26.7
1.65V	383	288	234	149	116	92.2	52.1	38.8	26.5
1.70V	356	278	230	141	109	88.5	50.9	38.5	25.9
1.75V	338	263	216	139	109	85.2	49.7	37.9	25.9
1.80V	324	251	206	138	104	82.9	49.0	37.6	25.7



CHARGING METHODS: Constant voltage charging at 25℃

Standby use: No charging current limit is required

Charging voltage: 13.6--13.8Volts

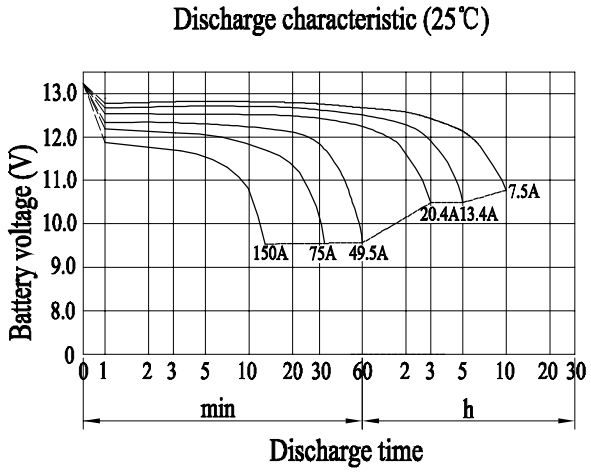
Cyclic use: Maximum charging current: 30% of rated capacity

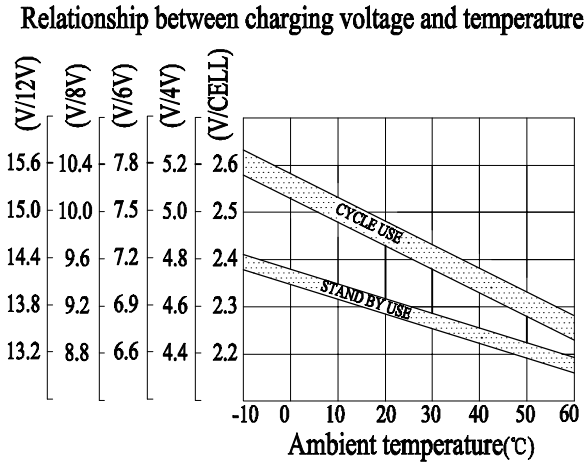
Charging voltage: 14.4--14.7Volts

Temperature compensation:

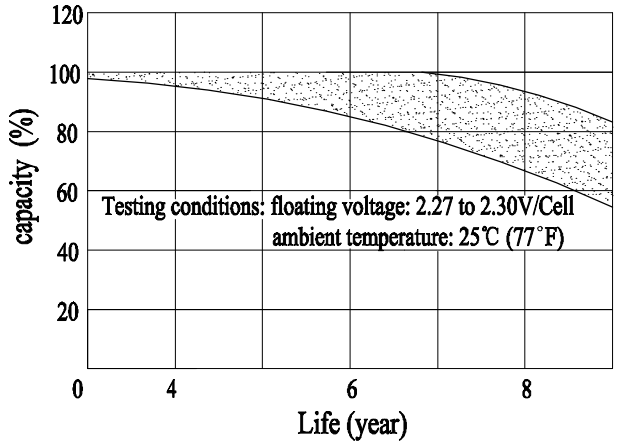
stand by -20mV/℃

cyclic use -30mV/℃.

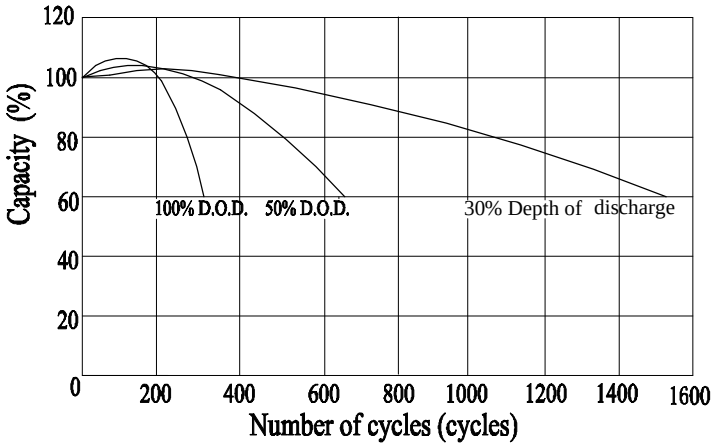




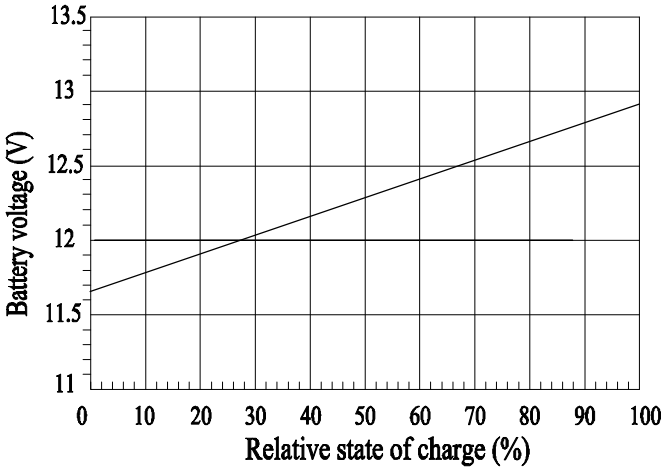
Life characteristics of standby use



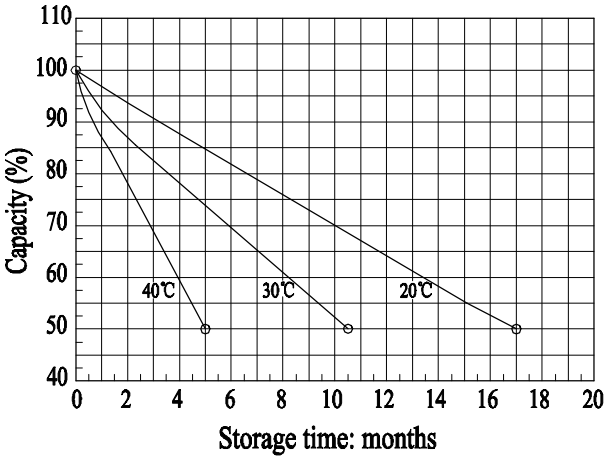
Cycle service life in relation to depth of discharge



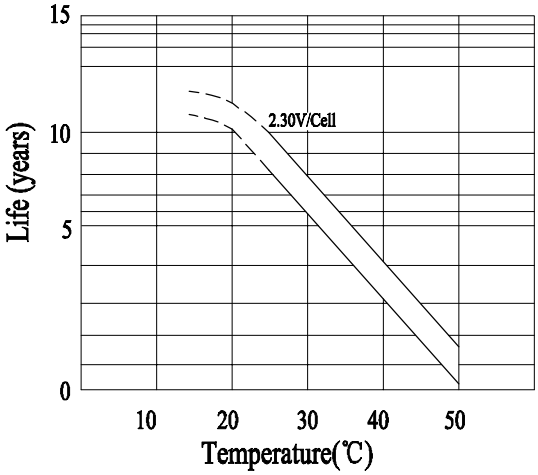
Relationship of OCV and state of charge (25℃)



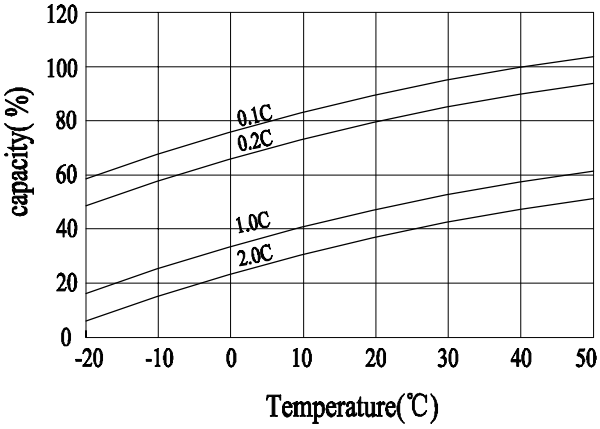
Self-discharge characteristic



Temperature effects on float life



Temperature effects on capacity



Battery and terminal dimensions