

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	Pb	Fiberglass	Sulfuric acid

**TECHNOLOGY PARAMETER**

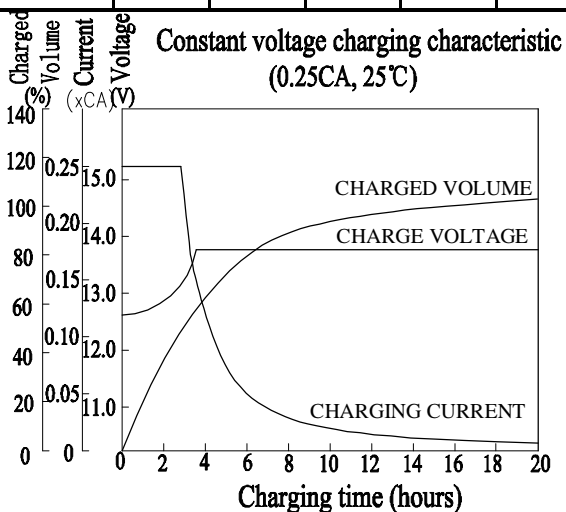
Battery model	6FM75T-X			
Nominal voltage	12V			
Number of cell	6			
Capacity (25°C)	20hR(3.90A, 10.5V)	10hR(7.50A, 10.8V)	5hR(13.6A, 10.5V)	1hR(51.2A, 9.60V)
	78Ah	75.0Ah	68.0Ah	51.2Ah
Dimensions	Length	Width	Height	Total Height
	258±1mm	166±1mm	206±1mm	211±1mm
Approx. weight	24.0Kg(52.9lbs)			
Internal resistance	Full charged at 25°C: 5.7mOhms			
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)	700A (5s)			
Short circuit current	1800A			

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

End Voltage/ volt per cell	5min	10min	15min	30min	35min	45min	50min	1h	3h	5h	8h	10h
1.60	245	182	140	83.4	74.7	62.9	58.2	51.2	22.1	14.4	9.38	7.67
1.65	226	172	134	79.9	70.3	57.5	53.9	48.5	21.7	14.2	9.31	7.65
1.70	210	161	124	78.5	69.0	56.1	52.8	47.8	21.3	14.0	9.23	7.60
1.75	199	154	119	75.1	67.2	54.8	51.3	46.2	20.9	13.6	9.09	7.55
1.80	184	142	114	74.6	65.9	54.4	50.3	44.3	20.1	13.4	8.99	7.50

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

End Voltage/ volt per cell	5min	10min	15min	30min	35min	45min	50min	1h	3h	5h	8h	10h
1.60	421	320	251	161	145	122	112.2	97.6	41.0	27.3	18.4	15.4
1.65	411	306	246	156	141	120	110.2	95.5	40.0	27.1	18.1	15.0
1.70	383	296	242	148	134	113	105.1	91.6	39.7	26.5	17.6	14.7
1.75	363	279	227	145	132	113	103.0	88.2	39.1	26.5	17.5	14.5
1.80	348	266	216	144	129	108	99.5	85.9	38.8	26.3	17.1	14.1



CHARGING METHODS: Constant voltage charging at 25°C

Standby use: No charging current limit is required

Charging voltage: 13.6–13.8Volts

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

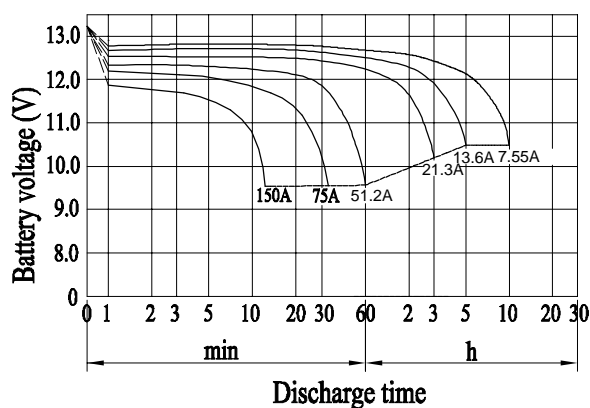
Charging voltage: 14.4–14.7Volts

Temperature compensation:

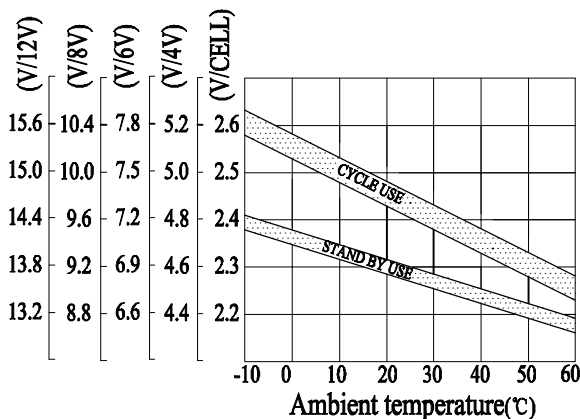
stand by -20mV/°C

cyclic use -30mV/°C.

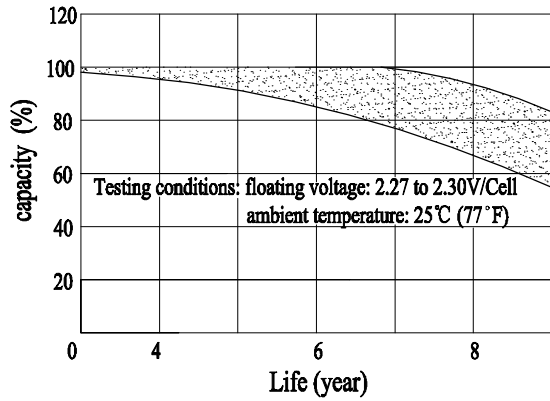
Discharge characteristic (25°C)



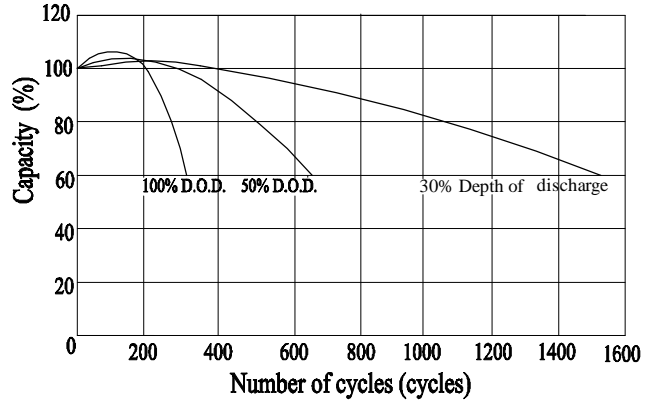
Relationship between charging voltage and temperature



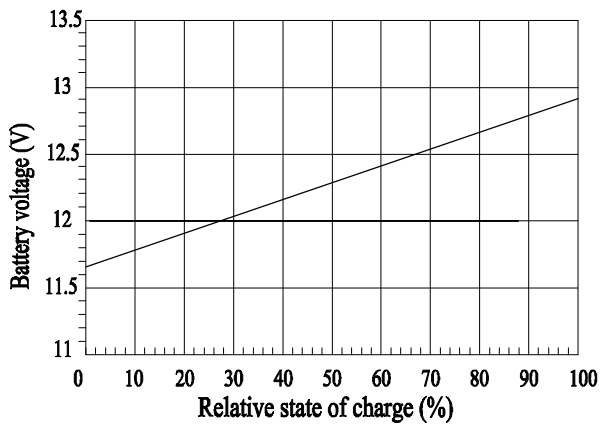
Life characteristics of standby use



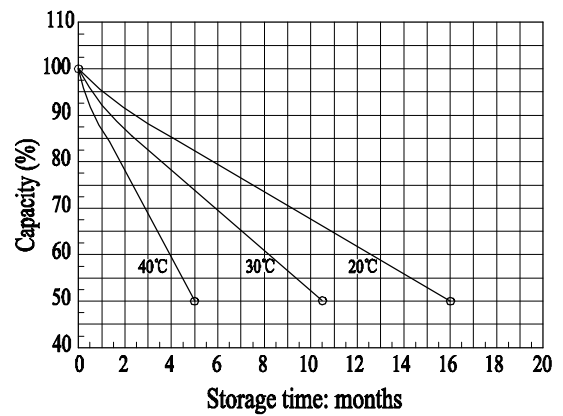
Cycle service life in relation to depth of discharge



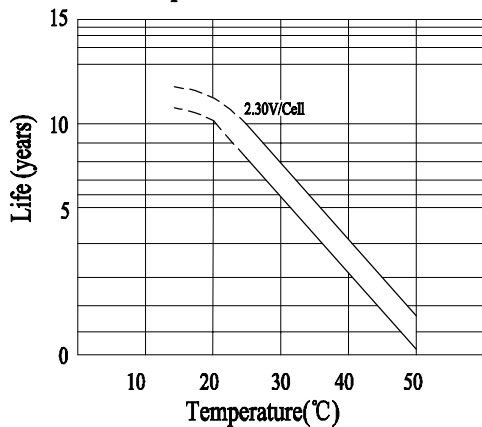
Relationship of OCV and state of charge (25°C)



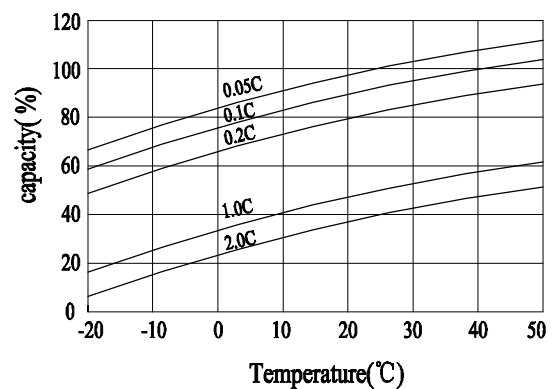
Self-discharge characteristic



Temperature effects on float life



Temperature effects on capacity



### Battery and terminal dimensions

