

6FM36(FR) 12V 36Ah (20hr) Sealed Lead Acid (SLA) Battery

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.



Battery Construction

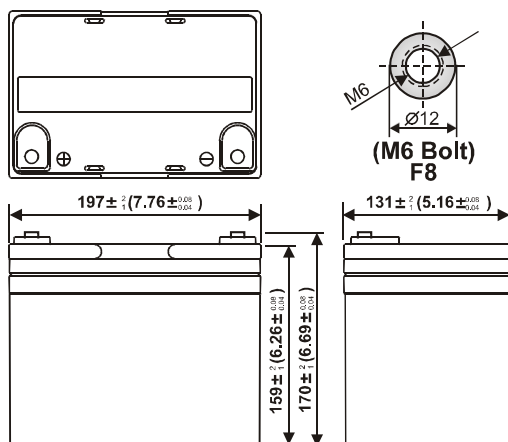
Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

General Features

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Positive and negative plates in lead-calcium-tin alloy
- Stable quality & high reliability
- Sealed construction
- Maintenance-free operation
- UL-recognized component.
- Low pressure venting system
- Low self discharge
- High rate discharge
- Valve Regulated Lead Acid (VRLA) battery
- V0 Class Flame-Retardant ABS (UL94V-0) container and cover
- Six months shelf life at 25°C
- Design life 3-5 years depend on temperature, float charging*

Dimensions and Weight

Length(mm / inch)	197 / 7.76
Width(mm / inch)	131 / 5.16
Height(mm / inch)	159 / 6.26
Total Height(mm / inch)	170 / 6.69
Approx. Weight(Kg / lbs)	10.7 / 23.54



Performance Characteristics

Nominal Voltage	12V
Number of cell	6
Design Life	3-5 years*
Nominal Capacity 77°F(25°C)	
20 hour rate (1.8A, 10.5V)	36Ah
10 hour rate (3.42A, 10.5V)	34.2Ah
5 hour rate (6.12A, 10.2V)	30.6Ah
1 hour rate (36A, 9.6V)	20.4Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	8mOhms
Self-Discharge	
3% of capacity declined per month at 25°C (average)	
Operating Temperature Range	
Discharge	-20~60°C
Charge	-10~60°C
Storage	-20~60°C
Max. Discharge Current 77°F(25°C)	960A(5s)
Short Circuit Current	540A
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	14.4-14.8V
Maximum charging current	10.8A
Temperature compensation	-30mV/°C
Standby use	13.5-13.8V
Temperature compensation	-20mV/°C

Discharge Rates in Watts to Various End Voltage at 25°C(77°F)

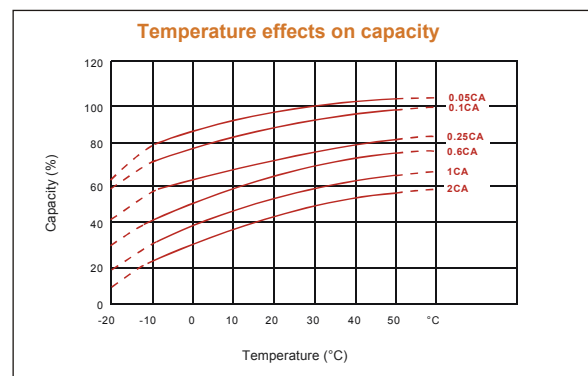
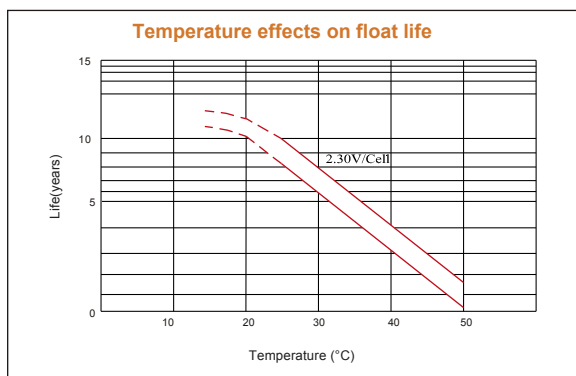
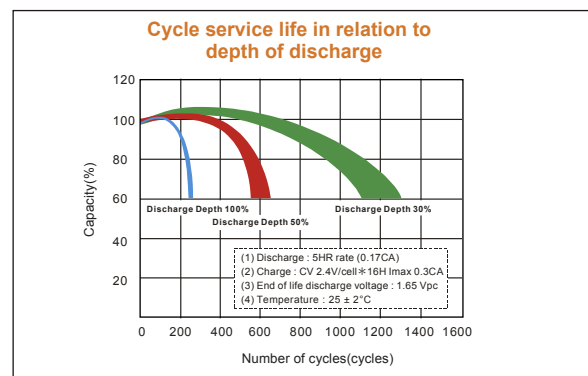
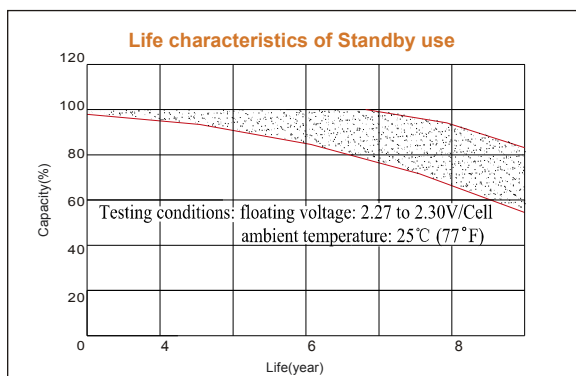
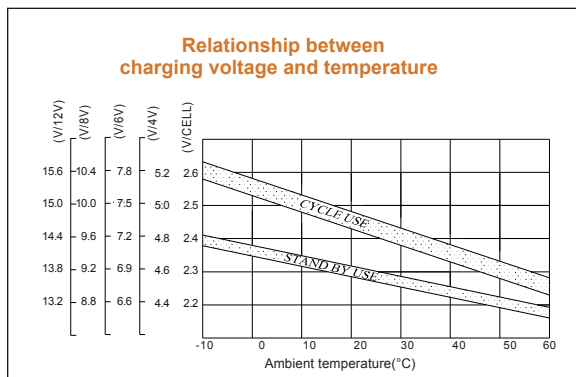
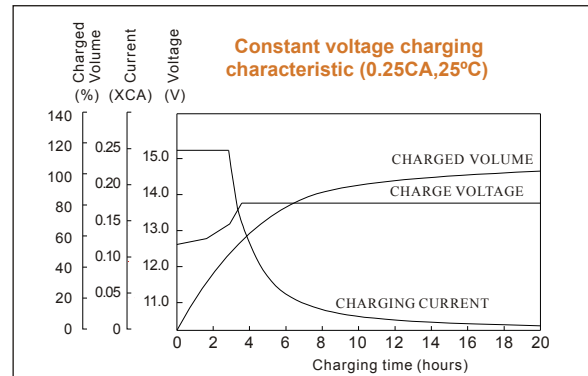
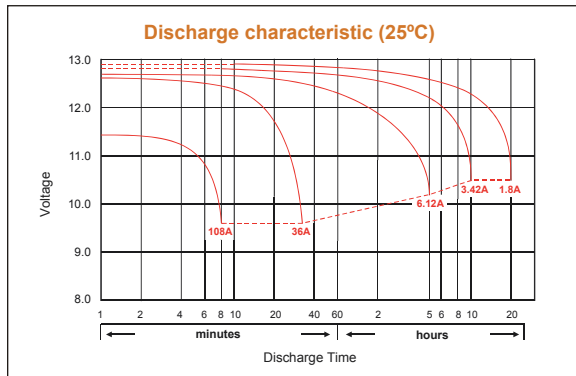
End Voltage	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
10 min	142	150	158	163	167	174
15 min	123	127	131	133	136	139
30 min	76.2	77.7	79.0	79.7	80.5	81.8
60 min	45.7	46.7	47.5	47.8	48.2	48.7
120 min	25.5	26.3	27.0	27.2	27.5	27.8
180 min	19.3	20.0	20.5	20.7	20.8	21.0
300 min	12.5	12.7	12.9	13.0	13.0	13.1
600 min	7.25	7.37	7.48	7.60	7.67	7.75
1200 min	3.75	3.83	3.92	3.95	3.98	4.03

Discharge Rates in Amperes to Various End Voltage at 25°C(77°F)

End Voltage	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
10 min	74.3	79.4	84.2	86.7	89.4	93.9
15 min	63.7	64.9	66.0	66.4	66.9	67.6
30 min	38.9	39.8	40.6	41.1	41.4	42.1
60 min	21.7	22.6	23.4	23.7	24.1	24.5
120 min	12.3	12.8	13.2	13.3	13.5	13.7
180 min	9.21	9.42	9.61	9.68	9.75	9.83
300 min	6.38	6.43	6.48	6.50	6.52	6.55
600 min	3.59	3.64	3.68	3.69	3.71	3.73
1200 min	1.88	1.93	1.96	1.97	1.98	1.99

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

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