6FM75 12V 75Ah (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

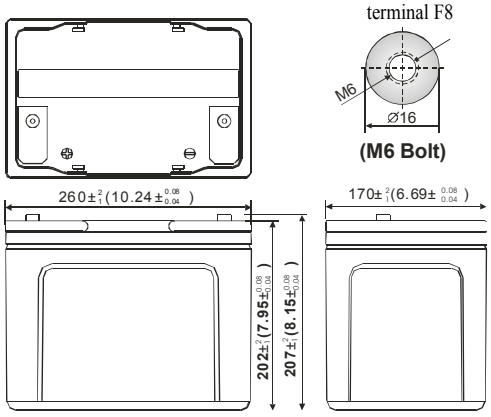
Component	Positive plate	Negative plate	Container&Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS UL94 HB	Rubber	Copper	Fiberglass	Sulfuric acid

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
- 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 is optional
- Six months shelf life at 25ºC
- Design life 8-10 years depend on temperature, float charging*

Dimensions and Weight

Length(mm / inch)	260 / 10.24
Width(mm / inch)	170 / 6.69
Height(mm / inch)	202 / 7.95
Total Height(mm / inch	207 / 8.15
Approx. Weight(Kg / lbs)	24.2 / 53.24



Performance Characteristics

Nominal Voltage	12V
Number of cell	6
Design Life	8-10 years
Nominal Capacity 77ºF(25°C)	
10 hour rate (7.5A, 10.8V)	75Ah
5 hour rate (12.75A, 10.2V)	63.75Ah
1 hour rate (45A, 9.6V)	45Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	5mOhms
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)	900A(5s)
Short Circuit Current	1,800A
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	14.4-14.8V
Maximum charging current	24A
Temperature compensation	-30mV/°C
Standby use	13.5-13.8V
Temperature compensation	-20mV/°C

Discharge Rates in Watts to Various End Voltage at 25ºC(77ºF)

End Voltage	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
10 min	294	336	357	368	378	388
15 min	225	240	274	280	287	294
30 min	149	155	159	160	162	165
60 min	85.3	87.8	89.8	90.5	91.3	92.3
120 min	49.8	51.3	52.7	53.2	53.7	54.3
180 min	35.8	36.8	37.7	38.0	38.3	38.8
300 min	25.3	25.7	26.0	26.2	26.3	26.5
600 min	15.2	15.3	15.5	15.5	15.6	15.6
1200 min	7.97	8.07	8.15	8.20	8.23	8.28

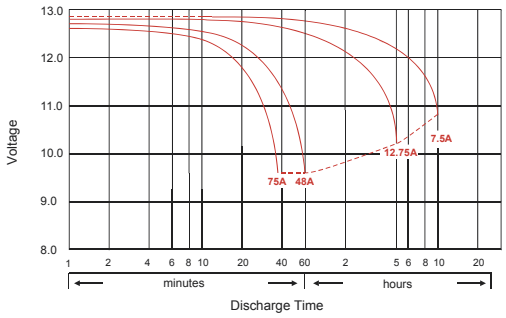
Discharge Rates in Amperes to Various End Voltage at 25ºC(77ºF)

End Voltage	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
10 min	143	167	186	192	199	207
15 min	109	124	138	141	145	150
30 min	72.6	79.4	84.5	85.6	87.2	89.0
60 min	41.5	43.3	44.8	45.3	45.9	46.7
120 min	22.4	23.9	25.0	25.4	25.8	26.3
180 min	17.4	18.4	19.3	19.6	20.0	20.4
300 min	12.6	13.1	13.4	13.6	13.8	14.1
600 min	7.62	7.69	7.74	7.76	7.81	7.85
1200 min	3.93	3.98	4.02	4.03	4.05	4.08

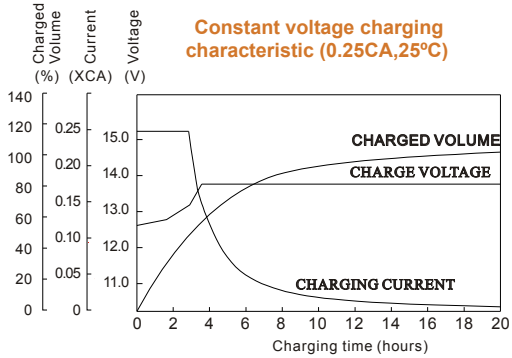
(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.

6FM75 12V 75Ah (20hr) Sealed Lead Acid (SLA) Battery

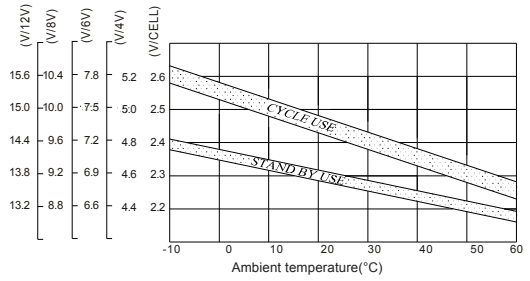
Discharge characteristic (25ºC)



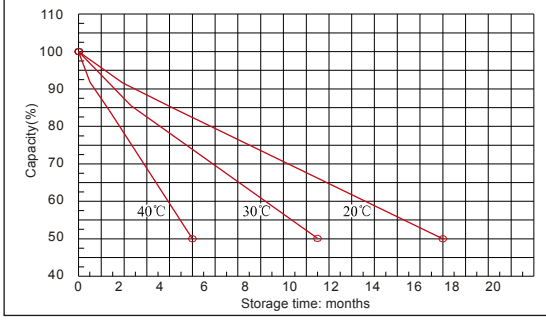
Constant voltage charging characteristic (0.25CA,25ºC)



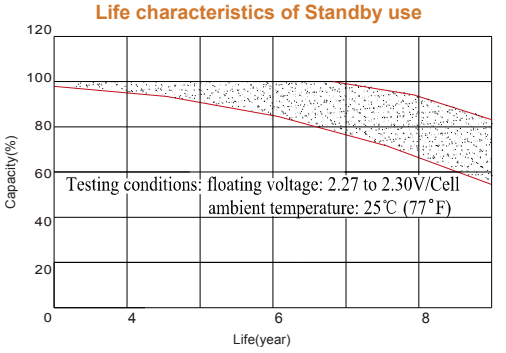
Relationship between charging voltage and temperature



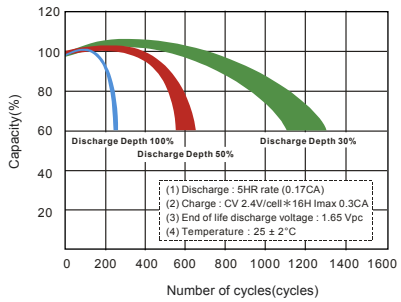
Self-discharge characteristic



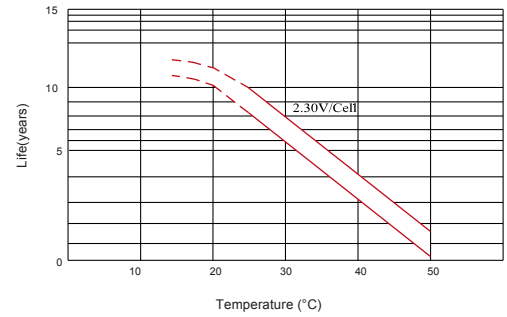
Life characteristics of Standby use



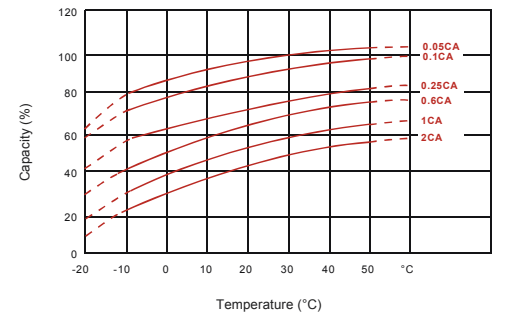
Cycle service life in relation to depth of discharge



Temperature effects on float life



Temperature effects on capacity



DENA ENGINEERING CO.,LTD.

185/1 Wongsawang Road, Wongsawang, Bangsue, Bangkok 10800 THAILAND

Tel. 02-587-7780, 02-910-9600 e-mail: dena@dena.co.th www.dena.co.th