

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 purpose application

LUXURY FM series are designed for general purpose applications, such as UPS, telecom, electrical utilities.

With 10 years design life, the batteries comply to the most popular international standards, such as IEC896-2, BS6290-4, Eurobat Guide.

The battery container and cover are available both in V0 class flame retardant ABS or HBO ABS plastics.

LUXURY SYSTEM Co., Ltd. has come to obtain wide recognition from customers all over the world. This is not only due to the fact that our products are featured by reliable stability in quality, but also because we attach great importance to our communication with customers and our perfect understanding of customers' requirements as well.

## 6FM90T-X 12V 90Ah

(Edition 2014-1)

### General Features

- Positive and negative plates in lead-calcium-tin alloy
- Stable Quality & High Reliability
- Sealed Construction
- Long Service Life
- Maintenance-Free Operation
- Low Pressure Venting System
- Low Self Discharge
- U. L. Component Recognition
- Six months shelf life at 20°C
- Design life 10 years



### Dimensions and Weight

	SI Units	English Units
Length	306mm	12.0inch
Width	169mm	6.65inch
Height	210mm	8.27inch
Total Height	215mm	8.46inch
Approx. Weight	28.0Kg	61.7lbs

### Performance Characteristics

- Nominal Voltage 12V
- Number of cell 6
- Nominal Capacity 77°F(25°C)
  - 10 hour rate (9.00A, 10.8V) 90.0Ah
  - 5 hour rate (16.2A, 10.5V) 81.0Ah
  - 1 hour rate (62.0A, 9.60V) 62.0Ah
- Internal Resistance
  - Fully Charged battery 77°F(25°C)  $\leq 5.9$  mOhms
- Self-Discharge
  - 3% of capacity declined per month at 20°C(average)
- Operating Temperature Range
  - Discharge -20~60°C
  - Charge -10~60°C
  - Storage -20~60°C
- Max. Discharge Current 77°F(25°C) 800A(5s)
- Short Circuit Current 2000A
- Charge Methods: Constant Voltage Charge 77°F(25°C)
  - Cycle use 2.40-2.45VPC
  - Maximum charging current 27A
  - Temperature compensation -30mV/°C
- Standby use 2.20-2.30VPC
  - Temperature compensation -20mV/°C

### Battery 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

## Discharge Data

Constant Current Discharge Data ( Amperes at 25°C )																									
End Voltage Per cell / V		10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	1h	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60		218	173	137	115	100	89.2	81.0	74.7	69.6	65.5	62.0	44.5	35.8	30.5	27.0	20.9	17.2	14.6	12.7	11.3	10.2	9.30	7.91	4.26
1.65		208	162	129	108	95.0	84.9	77.4	71.5	65.5	60.7	56.6	41.3	33.7	29.1	26.0	20.4	17.0	14.4	12.6	11.2	10.1	9.25	7.87	4.24
1.70		186	153	121	103	90.0	80.5	73.4	67.9	63.1	59.2	56.0	40.5	32.8	28.1	25.0	19.8	16.7	14.2	12.4	11.1	10.0	9.18	7.81	4.20
1.75		175	142	114	98.2	87.3	78.0	71.0	65.5	61.1	57.6	54.6	39.4	31.8	27.2	24.2	19.2	16.2	13.8	12.1	10.9	9.89	9.10	7.74	4.17
1.80		163	132	108	93.8	84.2	75.1	68.3	63.0	58.8	55.3	52.4	37.8	30.4	26.0	23.1	18.5	15.7	13.5	11.9	10.7	9.74	9.00	7.65	4.12

Constant Power Discharge Data ( Watts per cell at 25°C )																									
End Voltage Per cell / V		10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	1h	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60		373	308	249	213	189	170	156	145	134	125	117	82.8	65.5	55.2	48.3	38.3	32.3	27.6	24.2	21.7	19.7	18.1	15.4	8.28
1.65		364	303	241	205	180	162	149	139	128	119	112	80.1	64.1	54.6	48.2	38.0	31.9	27.2	23.8	21.3	19.3	17.7	15.1	8.13
1.70		345	284	227	194	171	153	140	129	120	113	107	76.9	61.8	52.8	46.8	37.2	31.5	26.8	23.4	20.9	19.0	17.4	14.8	7.99
1.75		343	281	224	190	167	150	138	128	118	110	103	74.2	59.8	51.2	45.4	36.2	30.7	26.2	22.9	20.5	18.6	17.1	14.6	7.84
1.80		314	267	215	184	163	147	134	125	115	107	101	73.1	59.1	50.8	45.2	35.9	30.3	25.8	22.5	20.1	18.2	16.7	14.2	7.66

(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values. All data shall be changed without notice, LUXURY reserves the right to explain and update the information contained hereinto.



