



VISION Rechargeable Products  
Sealed Lead Acid Battery

[www.vision-batt.com](http://www.vision-batt.com)

## FM Series

### General purpose application

VISION 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.

Shenzhen Center Power Tech 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.

Shenzhen Center Power Tech. Co., Ltd

# 6FM45-X 12V 45Ah

(Edition June 2004)

## 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	197mm	7.76inch
Width	165mm	6.50inch
Height	170mm	6.69inch
Total Height	170mm	6.69inch
Approx. Weight	13.8Kg	30.4lbs

## Performance Characteristics

- Nominal Voltage 12V
- Number of cell 6
- Nominal Capacity 77°F(25°C)
  - 20 hour rate (23.7A, 10.5V) 47.4 Ah
  - 10 hour rate (4.50A, 10.8V) 45.0Ah
  - 5 hour rate (7.38A, 10.5V) 36.9Ah
  - 1 hour rate (28.0A, 9.60V) 28.0Ah
- Internal Resistance
  - Fully Charged battery 77°F(25°C) 7.5mOhms
- 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) 450A(5s)
- Short Circuit Current 1050A
- Charge Methods: Constant Voltage Charge 77°F(25°C)
  - Cycle use 14.4-14.7V
  - Maximum charging current 13.5A
  - Temperature compensation -30mV/°C
- Standby use 13.6-13.8V
  - Temperature compensation -20mV/°C



Center Power Industrial Park, Tongfu Industrial District Dapeng Town, 518120 Shenzhen, China  
Tel: 86 755 84318088 Fax: 86 755 84318038 E-mail: [sales@vision-batt.com](mailto:sales@vision-batt.com)  
Website: <http://www.vision-batt.com>

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## Discharge Data

Constant Current Discharge Data ( Amperes at 25°C )

End Voltage Per cell / V	5min	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	149	100	77.8	61.8	52.1	45.7	41.1	37.7	35.0	32.2	29.9	28.0	19.9	15.9	13.4	11.8	9.30	7.80	6.73	5.96	5.39	4.94	4.58	3.89	2.04
1.65	136	95.0	74.3	59.9	51.3	45.5	40.8	37.2	34.4	31.7	29.5	27.6	19.6	15.6	13.2	11.6	9.14	7.66	6.63	5.89	5.34	4.90	4.54	3.86	2.02
1.70	134	90.0	73.0	58.4	49.7	43.9	38.7	34.9	31.9	30.0	28.5	27.2	19.3	15.3	12.9	11.3	8.94	7.52	6.53	5.82	5.29	4.87	4.53	3.85	2.02
1.75	118	85.0	69.0	54.5	45.7	39.9	36.2	33.4	31.2	29.5	28.1	26.9	19.0	15.1	12.7	11.1	8.78	7.38	6.34	5.59	5.04	4.60	4.51	3.83	2.01
1.80	114	80.0	66.0	52.5	44.4	39.0	35.4	32.6	30.5	28.9	27.6	26.5	18.7	14.8	12.5	10.9	8.66	7.30	6.27	5.54	4.99	4.56	4.50	3.83	2.01

Constant Power Discharge Data ( Watts per cell at 25°C )

End Voltage Per cell / V	5min	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	263	187	147	123	108	98.6	88.3	80.6	74.6	68.4	63.4	59.2	41.9	33.2	28.0	24.5	19.1	15.8	13.5	11.9	10.7	9.77	9.02	7.69	4.14
1.65	246	174	140	113	97.5	86.9	78.6	72.4	67.6	62.5	58.3	54.8	38.8	30.8	26.0	22.8	17.8	14.8	12.8	11.4	10.3	9.48	8.81	7.49	4.04
1.70	232	166	135	109	94.0	83.8	75.9	69.9	65.3	60.8	57.1	54.0	38.3	30.4	25.7	22.5	17.6	14.7	12.7	11.2	10.1	9.30	8.63	7.34	3.95
1.75	212	156	127	104	90.9	81.8	74.2	68.6	64.1	59.7	56.1	53.1	37.7	30.0	25.4	22.3	17.4	14.5	12.5	11.0	9.96	9.11	8.44	7.17	3.86
1.80	203	153	126	103	89.2	80.0	72.7	67.3	63.0	58.7	55.2	52.3	37.2	29.6	25.0	22.0	17.1	14.2	12.2	10.8	9.73	8.90	8.24	7.01	3.77

## Performance drawings

