



VISION Rechargeable Products  
Sealed Lead Acid Battery

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

## HP&HF Series

### High Rate Discharge

The new VISION HP/HF series batteries are specially designed for applications where need high power output. By optimum design of battery grids and platepaste formula, the HP/HF series can deliver up to 40% more power than VISION standard CP/FM series.

Shenzhen Center power tech co., ltd has more than 15 year's experience in the manufacturing of VRLA batteries. SZCPT is one of the biggest manufacturers of SLA (or VRLA) batteries in the world, the biggest one in Mainland China and the first in China to develop and commercialize the sealed lead-acid battery with brand name VISION and has been at the forefront of battery technology from day one.

SZCPT leads the world in innovative battery technology. Our global network of sales and service engineers, backed in turn by our agents and distributors, means that we are currently active in more than 100 countries.

Shenzhen Center Power Tech. Co., Ltd

## HF12-560W-X 12V 120Ah

(Edition June 2004)

### General Features

- Positive and negative plates in lead-calcium tin alloy
- Superior energy density
- Operates at a low internal pressure.
- Gas Recombination
- Usable in any orientation
- A recognized component of UL
- Very high power output
- Application specific designs
- A couple Range from 13W to 890W per cell for 10' @ 1.60Vpc
- Six months shelf life at 20°C
- Design life 10 years



### Dimensions and Weight

	SI Units	English Units
Length	410mm	16.1inch
Width	176mm	6.93inch
Height	227mm	8.94inch
Total Height	227mm	8.94inch
Approx. Weight	37.7Kg	83.1lbs

### Performance Characteristics

- Nominal Voltage 12V
- Number of cell 6
- Nominal Capacity 68°F(20°C)
  - 10 min wattage @ 1.6V560W/cell
  - 20 hour rate (6.57A, 10.5V) 131Ah
- Nominal Capacity 77°F(25°C)
  - 10 hour rate (12.0A, 10.8V) 120Ah
- Internal Resistance
  - Fully Charged battery 68°F(20°C) 3.3mOhms
- 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 68°F(20°C) 950A(5s)
- Charge Methods: Constant Voltage Charge 68°F(20°C)
  - Cycle use 14.5-14.7V
  - Maximum charging current 36A
  - Temperature compensation -30mV/°C
- Standby use 13.6-13.8V
  - Temperature compensation -20mV/°C



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# HF12-560W-X 12V 120Ah

## Discharge Data

Constant Current Discharge Data ( Amperes at 20°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		314	260	212	184	165	144	129	117	107	98.4	91.6	65.4	52.2	44.3	39.1	30.1	24.8	21.1	18.4	16.4	14.9	13.6	11.8	6.19
1.65		297	246	201	175	157	137	122	111	101	93.8	87.4	62.4	49.9	42.4	37.4	28.9	23.7	20.2	17.7	15.8	14.3	13.1	11.4	5.98
1.70		280	233	190	165	148	130	116	105	96.3	89.2	83.2	59.5	47.6	40.5	35.8	27.6	22.7	19.4	17.0	15.1	13.7	12.6	11.0	5.77
1.75		263	219	179	156	140	122	110	99.5	91.3	84.6	79.0	56.5	45.3	38.6	34.1	26.4	21.7	18.5	16.2	14.5	13.2	12.1	10.6	5.56
1.80		253	211	174	151	136	119	107	97.1	89.1	82.6	77.2	55.3	44.4	37.8	33.4	25.9	21.3	18.2	15.9	14.3	13.0	11.9	10.4	5.49

Constant Power Discharge Data ( Watts per cell at 20°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		560	460	376	326	292	258	232	212	195	181	169	120	95.2	80.5	70.6	55.6	46.6	40.3	35.8	32.4	29.8	27.7	24.0	12.8
1.65		539	444	363	315	283	250	225	206	189	176	164	117	92.7	78.4	68.9	54.3	45.5	39.4	35.0	31.7	29.2	27.1	23.6	12.6
1.70		518	428	351	304	273	242	218	200	184	170	160	113	90.2	76.4	67.1	53.0	44.5	38.5	34.3	31.1	28.6	26.6	23.2	12.4
1.75		497	412	338	293	264	233	211	193	178	165	155	110	87.7	74.3	65.4	51.7	43.4	37.6	33.5	30.4	28.0	26.0	22.7	12.2
1.80		476	396	325	282	254	225	204	187	172	160	150	107	85.2	72.2	63.6	50.4	42.4	36.8	32.7	29.7	27.4	25.5	22.3	12.0

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

## Performance drawings

