

**VISION** Rechargeable Products Sealed Lead Acid Battery

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 plate paste formula, the HP/HF series can deliver up to 40% more power than VISION standard CP/FM series.

Shenzhen Center powertech co., Itd 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

## HF12-135W-X 12V24Ah

Very high power output

Design life 10 years

Application specific designs

Six months shelf life at 20°C

#### **General Features**

- Positive and negative plates in lead-calcium tinalloy
- Superior energy density
- Operates at a low internal pressure.
- Gas Recombination
- Usable in any orientation
- A recognized component of UL

Dimensions and Weight								
	SI Units	English Units						
Length	166mm	6.54inch						
Width	175mm	6.89inch						
Height	125mm	4.92inch						
Total Height	125mm	4.92inch						
Approx. Weight	8.6Kg	19.0lbs						

A couple Range from 13W to 890W per cell for 10' @ 1.60Vpc

#### **Performance Characteristics**

- Nominal Voltage 12V
- Number of cell 6
- Nominal Capacity 68°F(20°C) 10 min wattage @1.6V135W/cell 20 hour rate (1.23A, 10.5V) 24.6Ah
- Nominal Capacity 77°F(25°C) 10 hour rate (2.40A, 10.8V) 24.0Ah
- Internal Resistance
  - Fully Charged battery 68°F(20°C) 12mOhms
- Self-Discharge

3% of capacity declined permonth at 20°C (average)



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Operating Temperature Range

Standby use 2.23-2.27VPC

Discharge -20~60°C

Charge -10~60°C

Storage -20~60°C

Max. Discharge Current 68°F(20°C) 300A(5s)

Maximum charging current 7.2A

Cycle use 2.30-2.35VPC

Charge Methods: Constant Voltage Charge 68°F(20°C)

Temperature compensation -30mV/°C

Temperature compensation -20mV/°C



### HF12-135W-X 12V 24Ah

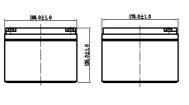
### Discharge Data

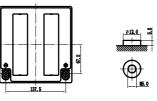
Constant Current Discharge Data (Amperes at 20°C)												
End Voltage Per cell / V	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	60min
1.60	113	79.2	61.0	48.4	40.8	35.8	31.3	27.9	25.2	23.0	21.1	19.6
1.65	106	74.9	57.8	45.9	38.7	34.0	29.7	26.5	24.0	21.9	20.1	18.7
1.70	99.6	70.6	54.6	43.4	36.6	32.1	28.1	25.1	22.7	20.8	19.1	17.8
1.75	92.9	66.3	51.5	40.9	34.5	30.3	26.5	23.7	21.5	19.7	18.1	16.9
1.80	88.9	63.8	49.7	39.6	33.5	29.5	25.9	23.1	21.0	19.2	17.7	16.5

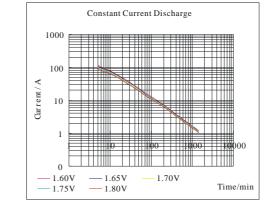
Constant Power Discharge Data (Watts per cell at 20°C)												
End Voltage Per cell / V	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	60min
1.60	195	135	104	82.9	70.2	61.7	54.5	49.1	44.9	41.2	38.1	35.6
1.65	186	130	100	80.0	67.8	59.7	52.8	47.6	43.6	40.0	37.1	34.6
1.70	178	125	96.7	77.2	65.5	57.7	51.1	46.1	42.2	38.8	36.0	33.7
1.75	169	120	93.1	74.4	63.2	55.7	49.3	44.6	40.9	37.6	34.9	32.7
1.80	161	115	89.4	71.6	60.8	53.7	47.6	43.1	39.5	36.4	33.8	31.7

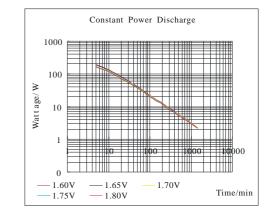
(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.

### Performance Drawings











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