

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 power tech 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

### HF12-155W-X 12V28Ah

#### **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



Vorv	high	nowar	output
very	IIIQII	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	165mm	6.50inch						
Width	125mm	4.92inch						
Height	175mm	6.89inch						
TotalHeight	175mm	6.89inch						
Approx. Weight	9.60Kg	21.2lbs						

#### Performance Characteristics

- Nominal Voltage 12V
- Number of cell 6
- Nominal Capacity 77°F(25°C)
  10 min wattage @1.6V 155W/cell
  20 hour rate (1.40A, 10.5V) 28.0Ah
- Nominal Capacity 77°F(25°C)
  10 hour rate (2.70A, 10.8V) 27.0Ah
- Internal Resistance
  - Fully Charged battery 77°F(25°C)  $\leq$  8.0mOhms
- Self-Discharge

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



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Operating Temperature Range

Standby use 2.20-2.30VPC

Discharge -20~60°C

Charge -10~60°C

Storage -20~60°C

Max. Discharge Current 77°F(25°C) 310A(5s)

Maximum charging current 8.4A

Cycle use 2.40-2.45VPC

Charge Methods: Constant Voltage Charge 77°F(25°C)

Temperature compensation - 30mV/°C

Temperature compensation -20mV/°C



### HF12-155W-X 12V 28Ah

(Edition Jan 2014)

## Discharge Data

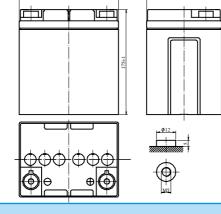
Constant Current Discharge Data ( Amperes at 25°C)												
End voltage volts/cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	60min
1.60	125	87.5	67.3	54.5	46.8	41.7	36.5	32.6	29.6	27.2	25.2	23.5
1.65	117	82.7	63.8	51.7	44.4	39.6	34.7	31.0	28.1	25.9	24.0	22.4
1.70	110	78.0	60.3	48.9	42.0	37.4	32.8	29.4	26.7	24.6	22.8	21.4
1.75	103	73.2	56.8	46.1	39.6	35.3	31.0	27.8	25.3	23.3	21.6	20.3
1.80	98.2	70.5	54.8	44.6	38.5	34.4	30.2	27.1	24.7	22.7	21.1	19.8

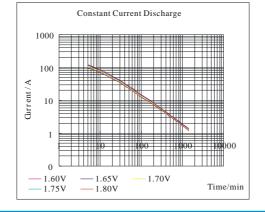
Constant Power Discharge Data (Watts per cell at 25°C)												
End voltage volts/cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	60min
1.60	229	155	118	95.3	81.7	72.6	64.6	58.6	53.9	49.7	46.3	43.5
1.65	219	149	114	92.1	79.0	70.3	62.6	56.8	52.3	48.3	45.0	42.3
1.70	210	144	110	89.0	76.3	67.9	60.5	55.0	50.7	46.8	43.7	41.1
1.75	200	138	106	85.8	73.6	65.6	58.5	53.2	49.0	45.4	42.4	39.9
1.80	190	132	102	82.6	71.0	63.2	56.4	51.4	47.4	43.9	41.1	38.7

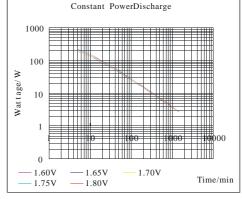
(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

All data shall be changed without notice, Vision reserves the right to explain and update the information contained hereinto.

Performance Drawings









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