LUXURY
SUMMIT OF TECHNOLOGY

**LUXURY Rechargeable Products**
**Sealed Lead Acid Battery**

www.luxury-system.com

# HP&HF Series

## High Rate Discharge

The new LUXURY 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 LUXURY standard CP/FM series.

Luxury system 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 LUXURY 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

**LUXURY SYSTEM .**

# HF12-370W-X 12V 76Ah

(Edition Jan 2014)

## 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 | 350mm | 13.8inch |
| Width | 167mm | 6.57inch |
| Height | 179mm | 7.05inch |
| Total Height | 179mm | 7.05inch |
| Approx. Weight | 26.2Kg | 57.8lbs |

## Performance Characteristics

- Nominal Voltage 12V
- Number of cell 6
- Nominal Capacity 77 °F(25°C)
  - 10 min wattage @1.6V 370W/cell
  - 20 hour rate (4.00A, 10.5V) 80.0Ah
- Nominal Capacity 77°F(25°C)
  - 10 hour rate (7.60A, 10.8V) 76.0Ah
- Internal Resistance
  - Fully Charged battery 77°F(25°C) ≦4.7mOhms
- 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) 750A(5s)
- Charge Methods: Constant Voltage Charge 77°F(25°C)
  - Cycle use 2.40-2.45VPC
  - Maximum charging current 24A
  - Temperature compensation -30mV/°C
- Standby use 2.20-2.30VPC
  - Temperature compensation -20mV/°C

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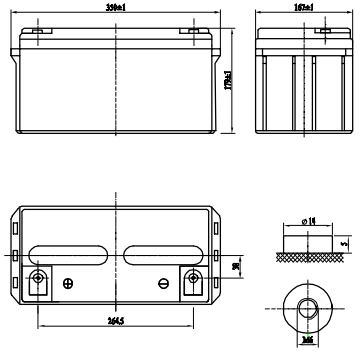
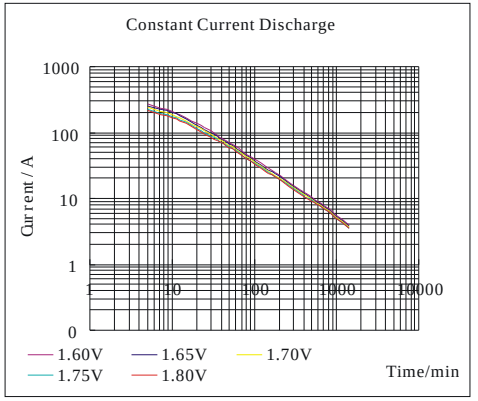
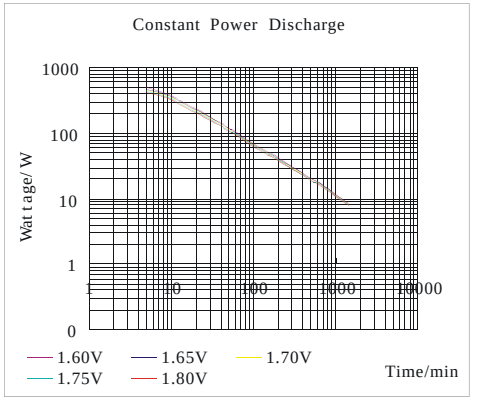
## Discharge Data

| Constant Current Discharge Data ( Amperes at 25ºC ) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| End Voltage Per cell / V | 5min | 10min | 15min | 20min | 25min | 30min | 35min | 40min | 45min | 50min | 55min | 60min |
| 1.60 | 269 | 208 | 167 | 136 | 117 | 104 | 92.0 | 82.8 | 75.6 | 70.2 | 65.8 | 62.1 |
| 1.65 | 253 | 197 | 159 | 129 | 111 | 99.0 | 87.4 | 78.7 | 71.9 | 66.8 | 62.7 | 59.2 |
| 1.70 | 237 | 186 | 150 | 122 | 105 | 93.7 | 82.8 | 74.6 | 68.2 | 63.5 | 59.6 | 56.4 |
| 1.75 | 221 | 174 | 141 | 115 | 98.9 | 88.3 | 78.1 | 70.5 | 64.6 | 60.1 | 56.5 | 53.5 |
| 1.80 | 212 | 168 | 136 | 111 | 96.0 | 86.0 | 76.1 | 68.8 | 63.0 | 58.7 | 55.2 | 52.3 |

| Constant Power Discharge Data ( Watts per cell at 25ºC ) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| End Voltage Per cell / V | 5min | 10min | 15min | 20min | 25min | 30min | 35min | 40min | 45min | 50min | 55min | 60min |
| 1.60 | 498 | 370 | 287 | 233 | 200 | 178 | 159 | 144 | 133 | 122 | 114 | 106 |
| 1.65 | 477 | 356 | 277 | 225 | 193 | 172 | 154 | 140 | 129 | 119 | 110 | 103 |
| 1.70 | 456 | 343 | 267 | 217 | 187 | 167 | 149 | 135 | 125 | 115 | 107 | 100 |
| 1.75 | 434 | 329 | 257 | 209 | 180 | 161 | 144 | 131 | 121 | 112 | 104 | 97.4 |
| 1.80 | 413 | 315 | 247 | 201 | 173 | 155 | 139 | 127 | 117 | 108 | 101 | 94.5 |

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

## Performance drawings