



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., 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

HF12-1010W-X 12V 210Ah

(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 1010W 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	522mm	20.6inch
Width	238mm	9.37inch
Height	218mm	8.58inch
Total Height	223mm	8.78inch
Approx. Weight	67.0Kg	148lbs



Performance Characteristics

- Nominal Voltage 12V
- Number of cell 6
- Nominal Capacity 77°F(25°C)
 - 10 min wattage @ 1.6V 1010W/cell
 - 20 hour rate (11A, 10.5V) 220Ah
- Nominal Capacity 77°F(25°C)
 - 10 hour rate (21A, 10.8V) 210Ah
- Internal Resistance
 - Fully Charged battery 77°F(25°C) $\leq 3.0\text{m}\Omega$
- 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) 1350A(5s)
- Charge Methods: Constant Voltage Charge 77°F(25°C)
 - Cycle use 2.40-2.45VPC
 - Maximum charging current 63A
 - Temperature compensation -30mV/°C
- Standby use 2.20-2.30VPC
 - Temperature compensation -20mV/°C



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HF12-1010W-X_{12V 210Ah}

Discharge Data

Constant current Discharge Data (Amperes at 25°C)											
End Voltage Volts/cell	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	60min
1.6	565	447	370	320	289	255	231	211	191	176	163
1.65	539	428	354	306	277	244	221	202	184	169	157
1.7	514	409	338	293	266	234	212	194	176	162	151
1.75	488	390	321	279	254	223	202	185	169	155	144
1.8	463	371	305	265	242	212	192	176	161	148	138

Constant Power Discharge Data (Watts per cell at 25°C)											
End Voltage Volts/cell	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	60min
1.6	1010	806	650	560	509	455	405	375	342	315	290
1.65	965	775	625	542	494	441	394	365	333	307	283
1.7	920	743	600	525	480	428	383	355	324	298	275
1.75	875	712	575	507	465	414	371	345	314	290	268
1.8	830	680	550	489	450	400	360	335	305	281	260

(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.

