



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.

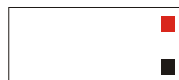
Shenzhen Center Power Tech. Co., Ltd

HF12-890WS-X 12V 200Ah

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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	522mm	20.6inch
Width	238mm	9.37inch
Height	218mm	8.58inch
Total Height	223mm	8.78inch
Approx. Weight	67.5Kg	149lbs

Performance Characteristics

- Nominal Voltage 12V
- Number of cell 6
- Nominal Capacity 68°F(20°C)
 - 10 min wattage @ 1.6V 890W/cell
 - 20 hour rate (10.8A, 10.5V) 216Ah
- Nominal Capacity 77°F(25°C)
 - 10 hour rate (20.0A, 10.8V) 200Ah
- Internal Resistance
 - Fully Charged battery 68°F(20°C) 2.2mOhms
- 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) 1300A(5s)
- Charge Methods: Constant Voltage Charge 68°F(20°C)
 - Cycle use 14.5-14.7V
 - Maximum charging current 60A
 - Temperature compensation -30mV/°C
- Standby use 13.6-13.8V
 - Temperature compensation -20mV/°C



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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	523	431	357	312	283	250	226	207	188	174	161	113	89.4	75.1	65.5	50.9	42.1	35.7	31.1	27.6	25.0	22.8	19.9	10.0
1.65	494	408	338	296	268	238	215	197	179	165	154	108	85.5	71.8	62.7	48.8	40.4	34.3	29.9	26.6	24.0	22.0	19.2	9.69
1.70	466	386	320	280	254	225	203	187	170	157	146	103	81.5	68.6	59.9	46.7	38.7	32.8	28.6	25.5	23.0	21.1	18.5	9.36
1.75	437	364	301	264	239	212	192	176	161	149	139	98	77.6	65.3	57.1	44.5	37.0	31.4	27.4	24.4	22.1	20.2	17.8	9.02
1.80	421	351	292	257	233	207	187	172	158	146	136	95.9	76.0	64.0	56.0	43.7	36.3	30.8	26.9	24.0	21.7	19.9	17.5	8.90

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	890	733	608	533	483	426	383	350	322	299	280	202	162	139	123	97.2	81.7	69.6	61.0	54.5	49.5	45.5	39.4	20.4
1.65	857	707	587	515	467	413	372	340	313	291	272	196	158	135	120	94.9	79.8	68.1	59.7	53.4	48.5	44.6	38.7	20.1
1.70	824	681	567	498	452	399	360	329	303	282	265	191	154	132	117	92.6	78.0	66.6	58.4	52.3	47.5	43.7	38.0	19.8
1.75	790	656	546	480	436	386	348	319	294	274	257	185	150	128	114	90.3	76.1	65.0	57.1	51.1	46.5	42.8	37.3	19.4
1.80	757	630	525	462	420	372	336	308	284	265	249	180	146	125	111	88.1	74.3	63.5	55.8	50.0	45.5	41.9	36.6	19.1

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

