

### Overview

The new VISION HFS series batteries are designed for UPS Standby Power Applications requiring high power output. Computer designed grids and optimized plate paste formula produce high energy density and long lasting uninterrupted power for critical systems.



### Battery Construction

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

### General Features

- Positive and negative plates in lead-calcium-tin alloy;
- Superior energy density;
- Operate at a low internal pressure;
- Gas recombination;
- Special separator technology;
- A recognized component of UL, IEC, TLC. etc;
- Container Material ABS(UL 94-HB);
- Very high power output for 5 to 15 minutes supply
- A covered range from 90W to 850W per cell for 15min @ 1.67Vpc;
- Six months shelf life at 20 °C;
- Design life :12+ years at 20 °C;
- Recommended loading 1h and below;

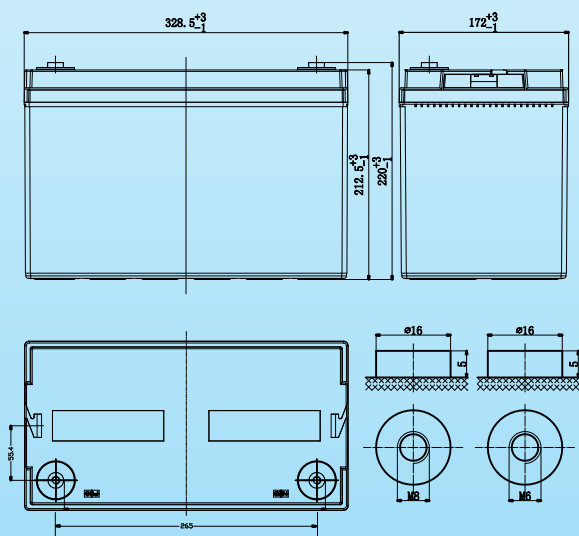
### Battery Specification

Performance Characteristics	
Nominal Voltage	12V
Number of cell	6
Design Life	12 years
Nominal Capacity 77°F(25°C)	
15 min wattage @ 1.67VPC	420W/cell
10 hour rate (10.0A,10.8V)	100Ah
20 hour rate (5.50A,10.8V)	110Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	≤4.2 mOhms
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)	820A(5s)
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	2.40~2.45VPC
Maximum charging current	33 A
Temperature compensation	-30mV/°C
Standby use	2.23~2.30VPC
Temperature compensation	-20mV/°C

### Dimensions and Weight

Length(mm / inch)	328.5/12.94
Width(mm / inch)	172/6.78
Height(mm / inch)	212.5/8.37
Total Height(mm / inch)	220/8.67
Approx. Weight(Kg / lbs)	32.3/71.2

\* Weight deviation: ± 5%



### Discharge Constant Current (Amperes at 77°F25°C)

End Voltage Volts/Cell	3min	5min	10min	15min	20min	25min	30min	45min	60min
1.60V	467	388	322	240	208	176	153	103	76.7
1.65V	453	376	314	229	193	164	144	101	74.4
1.67V	448	372	306	225	187	160	141	100	73.5
1.70V	434	358	294	210	175	151	132	93.5	71.4
1.75V	419	342	284	200	170	145	126	88.2	69.3
1.80V	405	328	263	191	164	141	121	86.1	67.2

### Discharge Constant Power (Watts at 77°F25°C)

End Point Volts/Cell	3min	5min	10min	15min	20min	25min	30min	45min	60min
1.60V	886	746	572	437	365	315	267	191	144
1.65V	870	729	558	425	364	306	256	188	142
1.67V	864	723	553	420	360	302	252	187	141
1.70V	849	697	512	395	339	289	251	182	137
1.75V	832	664	482	372	323	273	238	172	132
1.80V	818	645	465	349	305	261	228	162	125

(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.



**VISION GROUP**  
Shenzhen Center Power  
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# HFS12-420W-X

12V 100Ah

