

### 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

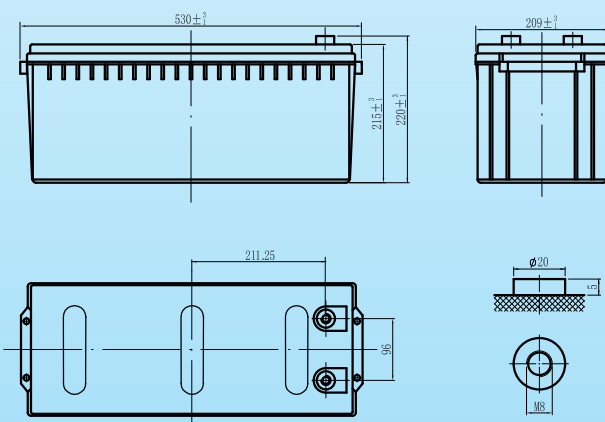
### General Features

- 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;

### Dimensions and Weight

Length(mm / inch)	530/20.8
Width(mm / inch)	209/8.2
Height(mm / inch)	215/8.5
Total Height(mm / inch)	220/8.7
Approx. Weight(Kg / lbs)	57.0/126

\* Weight deviation: ± 5%



### 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	710W/cell
10 hour rate (19.2A,10.8V)	192Ah
20 hour rate (10.0A,10.8V)	200Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	≤3.0 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)	1000A(5s)
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	2.40-2.45VPC
Maximum charging current	60 A
Temperature compensation	-30mV/°C
Standby use	2.23-2.30VPC
Temperature compensation	-20mV/°C

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

End Voltage Volts/Cell	3min	5min	10min	15min	20min	25min	30min	45min	60min
1.60V	943	714	492	362	330	294	265	207	162
1.65V	939	711	489	360	329	293	263	205	160
1.67V	929	702	483	356	327	290	259	198	155
1.70V	913	687	464	350	320	281	254	192	150
1.75V	899	669	454	342	314	277	248	184	143
1.80V	884	655	434	334	304	268	240	176	138

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

End Point Volts/Cell	3min	5min	10min	15min	20min	25min	30min	45min	60min
1.60V	1356	1134	864	730	620	545	485	355	277
1.65V	1341	1115	852	716	608	535	472	344	270
1.67V	1335	1107	847	710	604	531	466	340	267
1.70V	1304	994	817	700	584	513	447	329	257
1.75V	1264	976	804	678	559	491	431	315	247
1.80V	1227	956	789	643	544	479	412	302	236

(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**  
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# HFS12-710W-X

12V 192Ah

