



VISION GROUP
Shenzhen Center Power
Tech.Co.Ltd.,

HFS12-400W-X

12V 90Ah

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;

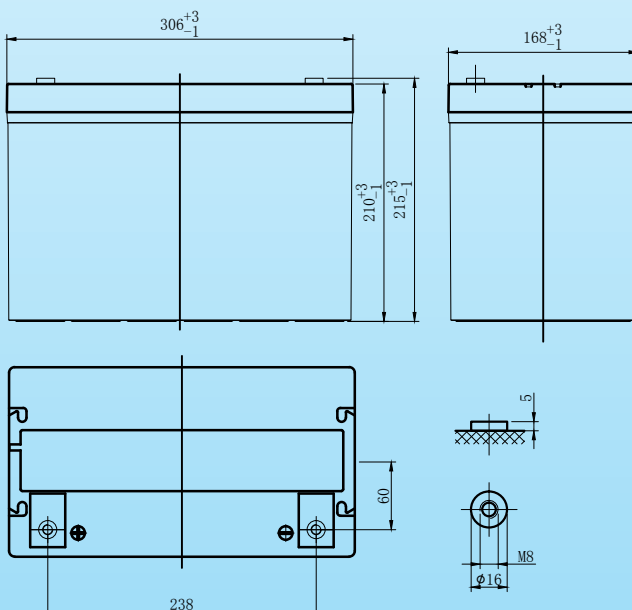
Battery Specification

Performance Characteristics	
Nominal Voltage	12V
Number of cell	6
Design Life	12 years
Nominal Capacity 77°F(25°C)	
15 min wattage @ 1.67VPC	400W/cell
10 hour rate (9.00A,10.8V)	90 Ah
20 hour rate (4.70A,10.8V)	94 Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	≤4.4 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)	810A(5s)
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	2.40-2.45VPC
Maximum charging current	28.2 A
Temperature compensation	-30mV/°C
Standby use	2.23-2.30VPC
Temperature compensation	-20mV/°C

Dimensions and Weight

Length(mm / inch)	306/12.06
Width(mm / inch)	168/6.62
Height(mm / inch)	210/8.27
Total Height(mm / inch)	215/8.47
Approx. Weight(Kg / lbs)	29.2/64.4

* 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	446	376	286	215	182	161	145	100	71.2
1.65V	441	366	270	211	180	158	139	99.5	68.7
1.67V	439	362	264	210	179	156	137	99.3	67.7
1.70V	425	352	251	200	171	148	129	86.1	65.1
1.75V	408	339	245	194	167	144	125	84.0	63.2
1.80V	397	318	236	188	156	137	120	82.6	60.5

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

End Point Volts/Cell	3min	5min	10min	15min	20min	25min	30min	45min	60min
1.60V	874	719	525	412	349	300	259	187	141
1.65V	860	686	505	403	336	289	249	182	138
1.67V	854	672	497	400	331	284	245	181	137
1.70V	821	642	487	390	321	274	235	170	132
1.75V	764	607	457	358	311	264	226	164	125
1.80V	708	567	427	344	296	258	221	159	121

(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.



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