



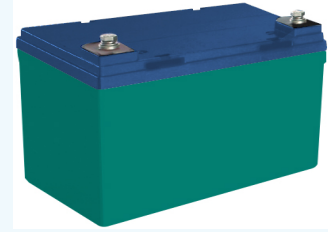
**VISION GROUP**  
Shenzhen Center Power  
Tech.Co.Ltd.,

# HFS12-150W-X

12V 33Ah

## 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;
- Flame retardant ABS(UL 94-FV0);
- 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;

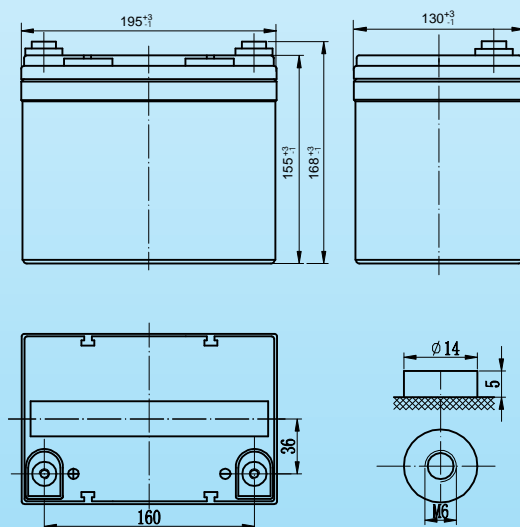
## Battery Specification

Performance Characteristics	
Nominal Voltage	12V
Number of cell	6
Design Life	12 years
Nominal Capacity 77°F(25°C)	
15 min wattage @ 1.67VPC	150W/cell
10 hour rate (3.30A,10.8V )	33 Ah
20 hour rate (1.75A,10.8V )	35 Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	≤7.0 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)	330A(5s)
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	2.40~2.45VPC
Maximum charging current	10.5A
Temperature compensation	-30mV/°C
Standby use	2.23~2.30VPC
Temperature compensation	-20mV/°C

## Dimensions and Weight

Length(mm / inch)	195/7.68
Width(mm / inch)	130/5.12
Height(mm / inch)	155/6.10
Total Height(mm / inch)	168/6.61
Approx. Weight(Kg / lbs)	11.5/25.4

\* 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	234	173	116	87	71.4	61.0	52.9	38.6	30.3
1.65V	216	162	111	83	69.3	59.1	51.3	37.7	30.1
1.67V	209	158	109	82	68.4	58.4	50.6	37.3	30.0
1.70V	194	149	104	80	66.4	57.1	49.9	36.8	29.8
1.75V	175	137	98	76	64.0	54.8	48.0	35.4	29.2
1.80V	158	124	91	71	60.0	51.2	45.0	33.9	28.1

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

End Point Volts/Cell	3min	5min	10min	15min	20min	25min	30min	45min	60min
1.60V	346	267	197	152	131	113	101	74.2	58.5
1.65V	333	261	191	151	129	111	99	73.4	58.4
1.67V	328	259	189	150	128	110	98	73.1	58.3
1.70V	317	248	183	146	126	108	94	71.9	58.1
1.75V	293	234	171	137	119	104	92	70.0	56.7
1.80V	287	224	164	131	115	100	89	67.4	54.7

(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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