

HFS Series

HFS12-400WR-X



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. Suitable for data centres, large UPS, telecom equipment and other scenarios.



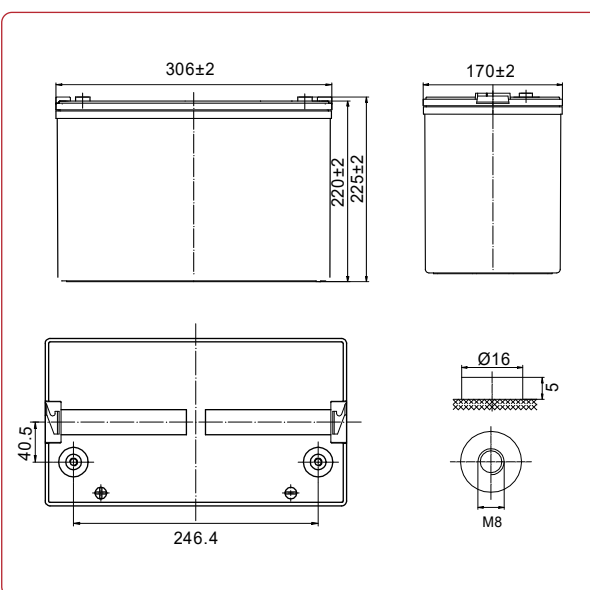
General Feature

- Sealed maintenance-free design, gas recombination efficiency up to 99%;
- Compact size, light weight, high discharge efficiency, suitable for the needs of high-precision power supply equipment;
- High tin low calcium alloy grid, high power lead paste formula, 5-15min backup power dedicated design;
- Produced by advanced automated equipment, more stable product performance;
- Low self-discharge rate, low internal resistance, strong charge acceptance ability;
- Standard and flame-retardant ABS cell covers (FR UL94-V0) available;
- Recommended for 1 hour or less backup power use, with more outstanding performance.

Standards & Certificates

- IEC 60896-21/22
- CE, UL approved
- GB/T 45001 / ISO 45001
- GB/T 24001 / ISO 14001
- GB/T 19001 / ISO 9001

Dimensions



Battery Construction

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	PbO ₂	Pb	ABS	ABS	EPDM	Cu	AGM	H ₂ SO ₄

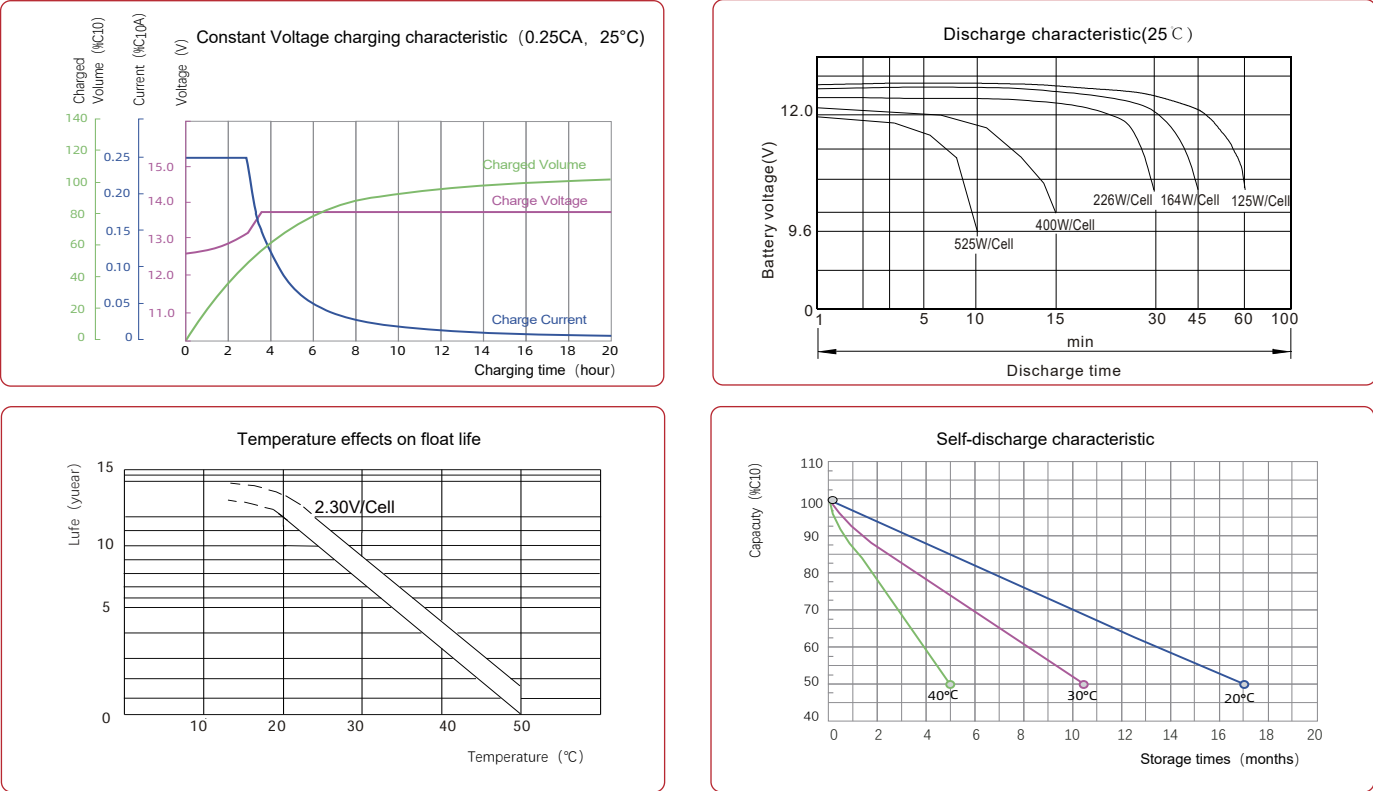
Specifications

Battery model	HFS12-400WR-X
Nominal Voltage	12V
Nominal Capacity (25℃)	90Ah (10hr, 10.8V)
Nominal Power (25℃)	400W/Cell(15min, 1.67VPC)
Weight	30.5±3%Kg
Internal Resistance	Fully Charged battery 77°F (25℃) : ≤4.4 mΩ
Dimensions (L*W*H*TH)	306*170*220*225mm
Short Circuit	2930A
Charging Voltage	Floating Charge: 2.23~2.28VPC, Temperature compensation: -3.3mV/℃/Cell Equalizing Charge: 2.30~2.40VPC, Temperature compensation: -5.0mV/℃/Cell
Maximum Charging Current	27.0A
Self-Discharge	3% of capacity declined per month at 20℃(average)
Operating Temperature Range	Discharge: -20 ~ 60℃; Charge: -10 ~ 60℃; Storage: -15~40℃
Design life (25℃)	12years
Terminal	M8

Constant Current Discharge Data (25℃,A)									
End Voltage Volts/Cell	3min	5min	10min	15min	20min	25min	30min	45min	60min
1.60	446	376	290	215	182	161	145	100	71.2
1.65	441	366	285	211	180	158	139	99.5	68.7
1.67	439	362	284	210	179	156	137	99.3	67.7
1.70	425	352	271	200	171	148	129	86.1	65.1
1.75	408	339	265	194	167	144	125	84.0	63.2
1.80	397	318	256	188	156	137	120	82.6	60.5

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

Characteristic Curve



Cautions

- Do not attempt to disassemble, disassemble or modify by yourself;
 - Carefully short-circuit the positive and negative poles of the battery or battery pack;
 - Use appropriate wires for connecting and extracting the battery pack;
 - When connecting, make sure to cut off the power supply and firmly connect the terminal bolts;
 - Do not use the battery directly as an alternating current power source;
- Do not contaminate with oil, water or other chemical solvents and chemicals;
 - During the handling process, handle the battery with care, avoid rolling or dropping it;
 - It should be stored or installed in a dry and ventilated place, away from heat sources and avoid direct sunlight;
 - Connect the battery to a matching power supply and set the charging voltage, current and other parameters as required;

