



VISION Rechargeable Products
Sealed Lead Acid Battery

www.vision-batt.com

HFS Series

High Rate Discharge

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.

Shenzhen Center Power Tech Co., Ltd has more than 20 year's experience in the manufacturing of VRLA batteries.

SZCPT is one of the largest manufacturers of SLA (or VRLA) batteries in the world, the largest one in Mainland China and the first in China to develop and commercialize the sealed lead-acid battery with brand name VISION and has been at the forefront of battery technology from day one.

SZCPT leads the world in innovative battery technology. Our global network of sales and service engineers, backed in turn by our agents and distributors, means that we are currently active in more than 100 countries.

Shenzhen Center Power Tech. Co., Ltd

HFS12-400W-X 12V 400W

General Features

- Positive and negative plates in lead-calcium tin alloy.
- Superior energy density.
- Operates 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.
- Special design to avoid thermal runaway.
- A covered range from 90W to 850W per cell for 15' @ 1.67Vpc.
- Six months shelf life at 20°C.
- Design life 12+ years at 25°C.
- Recommended loading 1h and below.

Dimensions and Weight

	Metric Units	English Units
Length	306mm	12.06inch
Width	168mm	6.62inch
Height	210mm	8.27inch
Total Height	215mm	8.47inch
Approx. Weight	29.2Kg	64.4lbs



Performance Characteristics

- Nominal Voltage 12V
- Number of cell 6
- Nominal Capacity 77°F(25°C)
 - 15 min wattage @1.67VPC 400W/cell
 - 10 hour rate (9 .0A, 10.8V) 90Ah
 - 20 hour rate (4.70A, 10.8V) 94Ah
- Torque setting:12.4NM
- 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 14.4V-14.7V
 - Maximum charging current 28.2A
 - Temperature compensation -30mV/°C
- Standby use 13.38V-13.8V
 - Temperature compensation -20mV/°C



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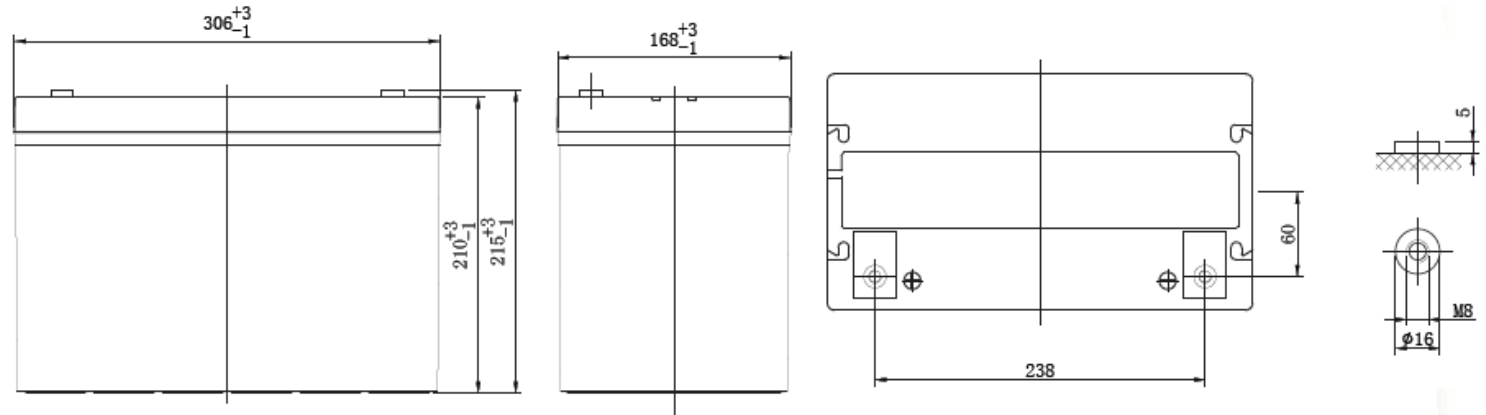
Discharge Data

Constant Current Discharge Date(Ampre at 25°C)									
End Voltage Volts/Cell	3min	5min	10min	15min	20min	25min	30min	45min	60min
1.60	446	376	286	215	182	161	145	100	71.2
1.65	441	366	270	211	180	158	139	99.5	68.7
1.67	439	362	264	210	179	156	137	99.3	67.7
1.70	425	352	251	200	171	148	129	86.1	65.1
1.75	408	339	245	194	167	144	125	84.0	63.2
1.80	397	318	236	188	156	137	120	82.6	60.5

Constant Power Discharge Date (Ampere at 25°C)									
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

(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.

Performance drawings



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