



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

HFS12-420WR-X

12V 100Ah

Overview

The new High Rate series of VLRA 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 |

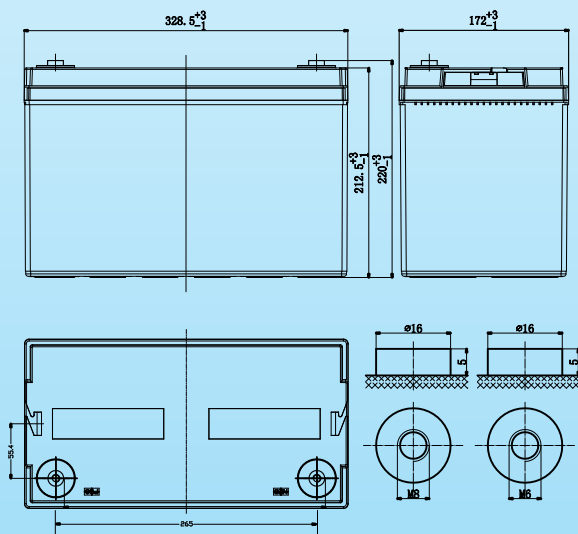
General Features

- Positive and negative plates in lead-calcium-tin alloy;
- Superior energy density;
- Operate at a low internal pressure;
- Gas recombination up to 99%;
- Special separator technology;
- A recognized component of UL, EC, 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 25 °C;
- Recommended loading 1h and below;

Dimensions and Weight

| | |
|--------------------------|-------------|
| Length(mm / inch) | 328.5/12.94 |
| Width(mm / inch) | 172/6.78 |
| Height(mm / inch) | 212.5/8.37 |
| Total Height(mm / inch) | 220/8.67 |
| Approx. Weight(Kg / lbs) | 32.3/71.2 |

* Weight deviation: ± 5%



Battery Specification

Performance Characteristics

| | |
|--|--------------|
| Nominal Voltage | 12V |
| Number of cell | 6 |
| Design Life | 12 years |
| Nominal Capacity 77°F(25°C) | |
| 3 hour rate (26A, 10.8V) | 78Ah |
| 5 hour rate (18A, 10.8V) | 90Ah |
| 10 hour rate (10A, 10.8V) | 100Ah |
| Internal Resistance | |
| Fully Charged battery 77°F(25°C) | ≤ 3 mOhms |
| Short - circuit Current | 3560A |
| Self-Discharge | |
| 2% of capacity declined per month at 25°C(average) | |
| Operating Temperature Range | |
| Discharge | -20~60°C |
| Charge | -20~60°C |
| Storage | -20~60°C |
| Max. Discharge Current 77°F(25°C) | 820A(5s) |
| Charge Methods: Constant Voltage Charge 77°F(25°C) | |
| Cycle use | 2.35~2.45VPC |
| Maximum charging current | 33 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 | 467 | 388 | 322 | 240 | 208 | 176 | 153 | 103 | 76.7 |
| 1. 65V | 453 | 376 | 314 | 229 | 193 | 164 | 144 | 101 | 74.4 |
| 1. 67V | 448 | 372 | 306 | 225 | 187 | 160 | 141 | 100 | 73.5 |
| 1. 70V | 434 | 358 | 294 | 210 | 175 | 151 | 132 | 93.5 | 71.4 |
| 1. 75V | 419 | 342 | 284 | 200 | 170 | 145 | 126 | 88.2 | 69.3 |
| 1. 80V | 405 | 328 | 263 | 191 | 164 | 141 | 121 | 86.1 | 67.2 |

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

| End Point Volts/Cell | 3min | 5min | 10min | 15min | 20min | 25min | 30min | 45min | 60min |
|-------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1. 60V | 886 | 746 | 572 | 437 | 365 | 315 | 267 | 191 | 144 |
| 1. 65V | 870 | 729 | 558 | 425 | 364 | 306 | 256 | 188 | 142 |
| 1. 67V | 864 | 723 | 553 | 420 | 360 | 302 | 252 | 187 | 141 |
| 1. 70V | 849 | 697 | 512 | 395 | 339 | 289 | 251 | 182 | 137 |
| 1. 75V | 832 | 664 | 482 | 372 | 323 | 273 | 238 | 172 | 132 |
| 1. 80V | 818 | 645 | 465 | 349 | 305 | 261 | 228 | 162 | 125 |

(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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