

HZB12-200 Valve Regulated Lead Acid battery.

12 year design life for stand by power applications.

12 Volts 200 Ah

#### **Innovative Features**

- Completely maintenance free, sealed construction eliminates the need for watering
- Fully tank formed plates
- Analytical Grade electrolyte
- Spill proof / leak proof
- Valve regulated Max internal pressure 2.5 psi
- Multi-position usage
- ABS Case and cover V0 on request
- Low self discharge
- FAA and IATA approved as non-hazardous
- Built to comply with IEC 896-2, DIN 43534, BS 6290 Pt4, Eurobat.



#### **Specifications**

Nominal Voltage 12 Volts

Nominal Capacity 200Ah (C20 @ 20 °C)

Design Life 12 Years
Operating Temperature -20 °C to 50 °C

Grid alloy Calcium / Tin lead alloy

Plates Flat Pasted

Separator Absorbant Glass Mat
Active material Very high purity lead
Case and cover ABS (VO on request)

Charge Voltage Float 2.25 - 2.30 VPC @25 °C Cycliing 2.35 @25 °C

Max. 2.4 VPC Max ripple 0.05C (A)

Electrolyte Sulphuric acid Analytical grade purity

Venting Valve EPDM Rubber 1.5 to 2 psi (10.5 - 14 KPa) release pressure. Resealing at 1

psi (7 KPa)

Terminal Insert 12mm Dia M5 thread. Epoxy sealed by extended mechanical paths

Torque setting The recommended torque value for all types is 5-7 Nm Cables Connectors, cables, terminal covers on request.





Haze Battery Company keenly encourages environmental awareness; PLEASE follow guidelines for the recycling /disposal of lead.

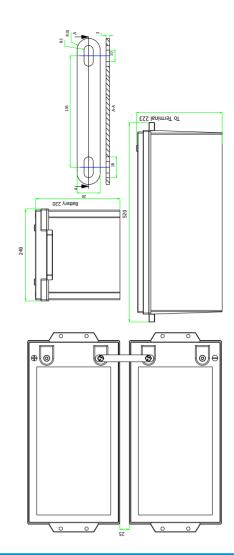
Website: www.hazebattery.com E mail: sales@hazebattery.com

**Specifications** 

| Nominal    | Voltage          | 12V    |              |
|------------|------------------|--------|--------------|
| Nominal    | Capacity         | 200 Ah |              |
|            | Total Height     | 220 mm | 8.66 inches  |
|            | (Inc. terminals) | n/a mm | n/a inches   |
| Dimensions | Length           | 520 mm | 20.47 inches |
|            | Width            | 240 mm | 9.45 inches  |
|            | Weight           | 66 Kg  | 145.86 lbs   |

#### Characteristics

| <u>Characteristics</u>                            |                                   |                            |                        |         |  |  |  |
|---|-----------------------------------|----------------------------|------------------------|---------|--|--|--|
|   | 20 hour                           | 19                         | 9.2 Ah                 |         |  |  |  |
|   | 10 hour                           | 17                         | 7.8 Ah                 |         |  |  |  |
| Capacity  | 5 hour r                          | ate                        | 16                     | 60.6 Ah |  |  |  |
| 20 °C (68 °F)                                     | 1 hour r                          | 13                         | 9.5 Ah                 |         |  |  |  |
| To 1.7 volts                                      | 15 min ı                          | 15 min rate                |                        |         |  |  |  |
|   | Internal Res                      | sistance                   | <2                     | mOhms   |  |  |  |
|   | Impeda                            |                            | S                      |         |  |  |  |
| Compails a compation for                          | 40                                | °C (104 °F)                |                        | 102%    |  |  |  |
| Capacity correction for<br>Temperature Variations | 20                                |                            | 100%                   |         |  |  |  |
| (C20)   | 0                                 | 85%                        |                        |         |  |  |  |
| (* 1)   | -1                                | 65%                        |                        |         |  |  |  |
| Self-Discharge                                    | Capacity after 1 months storage 9 |                            |                        |         |  |  |  |
| 20 °C (68 °F)                                     | Capacity aft                      | age                        | 94%                    |         |  |  |  |
| 20 0 (00 1)                                       | Capacity aft                      | age                        | 86%                    |         |  |  |  |
| Short Circuit Current                             | 5400                              |                            |                        |         |  |  |  |
| 20 °C (68 °F)                                     |                                   |                            |                        |         |  |  |  |
| Terminal  | Standard                          | insert M6 t                |                        |         |  |  |  |
|   | Optional                          | Cu/Lead F                  | l Flag - J Type - Auto |         |  |  |  |
| Charging  | Cyclic                            | 2.35 - 2.40 VPC (20-25 °C) |                        |         |  |  |  |
| (Constant Voltage)                                | Float                             | 0 VPC (15                  | C (15-25 °C)           |         |  |  |  |



### Constant Power Discharge - Watts per Cell @20 °C

| End V per<br>Cell | 5M  | 10M | 15M | 20M | 25M | 30M | 35M | 40M | 45M | 60M | 90M | 2 hr | 3 hr | 4 hr |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| 1.85              | 606 | 530 | 461 | 409 | 369 | 343 | 318 | 296 | 275 | 229 | 165 | 130  | 91.9 | 72.0 |
| 1.80              | 749 | 616 | 511 | 458 | 407 | 374 | 346 | 324 | 302 | 255 | 180 | 139  | 96.7 | 75.4 |
| 1.75              | 805 | 667 | 561 | 494 | 440 | 396 | 364 | 336 | 314 | 262 | 181 | 140  | 97.0 | 75.6 |
| 1.70              | 826 | 683 | 572 | 510 | 456 | 408 | 369 | 340 | 316 | 264 | 183 | 141  | 98.2 | 75.9 |
| 1.65              | 848 | 700 | 596 | 525 | 464 | 410 | 372 | 342 | 322 | 268 | 187 | 143  | 98.9 | -    |
| 1.60              | 893 | 719 | 603 | 534 | 472 | 416 | 377 | 348 | 327 | 272 | 191 | 146  | 99.4 | -    |

## Constant Amps Discharge - Amps @20 °C

|                   |     |     |     | _   |     |     |     |     |     |     |      |      |      |      |      |      |       |       |       |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|-------|-------|-------|
| End V per<br>Cell | 5M  | 10M | 15M | 20M | 25M | 30M | 35M | 40M | 45M | 60M | 90M  | 2 hr | 3 hr | 4 hr | 5 hr | 8 hr | 10 hr | 12 hr | 20 hr |
| 1.85              | 325 | 284 | 246 | 217 | 196 | 181 | 168 | 156 | 144 | 119 | 85.6 | 67.0 | 47.1 | 36.7 | 30.0 | 20.0 | 16.6  | 14.2  | 9.3   |
| 1.80              | 408 | 335 | 277 | 246 | 218 | 200 | 184 | 172 | 159 | 134 | 93.9 | 72.0 | 49.8 | 38.7 | 31.2 | 20.7 | 17.2  | 14.7  | 9.6   |
| 1.75              | 444 | 366 | 306 | 268 | 237 | 213 | 194 | 179 | 167 | 138 | 94.7 | 72.8 | 50.2 | 38.9 | 31.6 | 20.8 | 17.3  | 14.8  | 9.7   |
| 1.70              | 460 | 378 | 315 | 279 | 248 | 221 | 198 | 182 | 168 | 140 | 96.3 | 73.7 | 50.9 | 39.2 | 32.1 | 21.3 | 17.8  | 15.2  | 10.0  |
| 1.65              | 474 | 389 | 329 | 288 | 253 | 222 | 201 | 183 | 172 | 142 | 98.4 | 74.9 | 51.3 | -    | -    | -    | -     | -     | -     |
| 1.60              | 501 | 401 | 333 | 293 | 258 | 226 | 204 | 187 | 175 | 144 | 100  | 76.3 | 51.7 | -    | -    | -    | -     | -     | -     |

# Ampere Hour @20 °C

| p G: G :          |      | <u> </u> | _    |      |      |       |       |       |
|-------------------|------|----------|------|------|------|-------|-------|-------|
| End V per<br>Cell | 2 hr | 3 hr     | 4 hr | 5 hr | 8 hr | 10 hr | 12 hr | 20 hr |
| 1.85              | 134  | 141      | 147  | 150  | 160  | 166   | 170   | 186   |
| 1.80              | 144  | 149      | 155  | 156  | 165  | 172   | 177   | 193   |
| 1.75              | 146  | 151      | 156  | 158  | 167  | 173   | 177   | 193   |
| 1.70              | 147  | 153      | 157  | 161  | 170  | 178   | 183   | 199   |
| 1.65              | 150  | 154      | -    | -    | -    | -     | -     | -     |
| 1.60              | 153  | 155      | -    | -    | -    | -     | -     | -     |



