



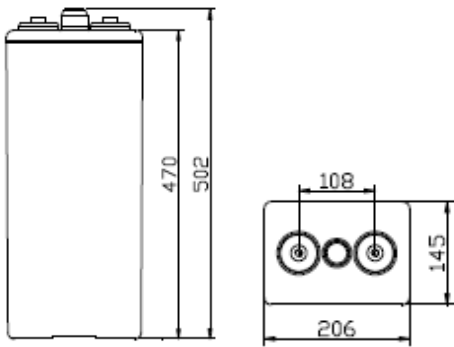
Application

- Solar energy, wind energy
- Electric power, nuclear power
- Communication
- Ship, maritime affairs
- UPS, medical facilities and emergency lighting
- Situation with high environmental protection and energy-saving

Features of performance application

- Designed service life of 20 years
- High cycle service life
- Better temperature resistance performance
- Excellent deep cycle performance
- Superior low current discharge performance
- Stronger constant power discharge capability
- Better charge acceptability
- Better safety performance and reliability
- Modular and personified installation design
- High Performance price/ratio and low yearly operating cost
- Eco-friendly, cycle applicatio

Terminal Dimensions



Standards & Certifications

Execution standard:

IEC60896-21/22 DIN40742
BS EN 61427-2002
YD/T 1360-2005
Q/321284KCC 03-2006

Authentication and certificate:

Certificate of Qualification on Perfecting Measurement & Measuring System

GB/T19022-2003
ISO10012:2003DIDT

Quality Management System Authentication

GB/T19001-2000

NO.03006010002R0M-2

Environmental Management System Authentication

ISO 14001:2004

NO.010607E2024R1M-2

Occupational Health Management System

Authentication

GB/T28001-2001

NO.010607S10147R0M-2

Product authentication:

YD/T1360-2005

NO.030074640567R1M

CE authentication

EN 61000-6-3:2001+A11:2004

EN 61000-6-1:2001

National Industrial Product Production License

XK06-044-00012

Product Quality Test Free Certificate

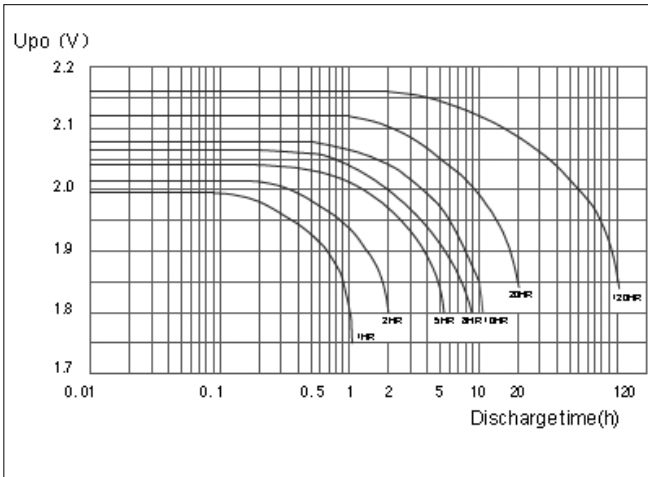
(2006)GM(321630488)

Export product quality license

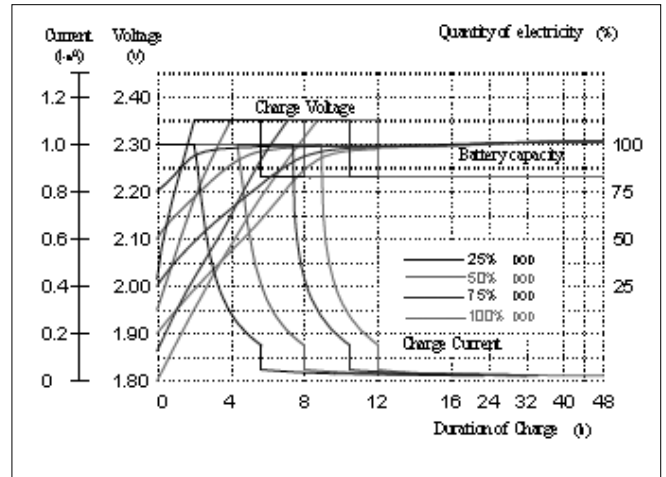
- Electrolyte: primary material adopts Germany gas silicon dioxide, the material will be the thin collosol state when it's injected initially, and it can fill the whole plate space of battery, and each part of plate can react evenly. The flooded electrolyte design can avoid dry up of battery when it's in high temperature and over charged, the thermal capacity is big and heat-elimination is fine, accordingly, thermal runaway can be avoided. The electrolyte is in the gel state in finished battery without flowing, accordingly, leakage and lamination can be avoided.
- Plate: positive plate adopts tubular type plate which can effectively prevent active substance falling, the positive plate frame is molded with multi-component alloy, the crystal particle of alloy structure is tiny and dense, the corrosion-resisting performance is fine and service life is long. Negative plate adopts pasted plate, the grid adopts radiated structure which enhances utilization ratio of active substance and discharge capability of strong current, and the charge reception capability is strong.
- Battery case: it's made of ABS material, corrosion prevention is fine, strength is high, and appearance is beautiful, it can be sealed with lid reliably which can prevent potential leakage risk.
- Separator: adopt special micro-pore PVC-SiO₂ separator from Europe AMER-SIL Company, the porosity of separator is big and resistance is low. It has bigger electrolyte storage space.
- Terminal sealing: the built-in copper core lead-base terminal post has stronger current carrying capacity and corrosion resistance. The unique double sealing structure of terminal post can effectively avoid leakage, guarantee reliability of terminal post sealing.
- Safety valve: adopt Germany technology, constant opening and closing valve, high reliability, the accumulator case expansion, damage and electrolyte dry up can be avoided.

| Battery Model | 6 OPzV 420 |
|------------------------|---|
| Rated voltage | 2V |
| Capacity(25 °C) | 420Ah @ 10hr to 1.80V per cell |
| Weight | 34kg (75.91 lb) |
| Reference internal | 0.38m0hm@ 25°C(77°F) |
| Resistance (charged) | 5395A (0.1S reference value) |
| Short circuit current | |
| Max discharge current | 1260A (5sec) |
| Self-discharge | <20% 180 days@ 25°C (77°F) |
| Temperature range | Application: -20°C~50°C(-4°F~122°F) Storage: 0°C~20°C(32°F~68°F) Recommendation: 20°C~25°C(68°F ~ 77°F) |
| Max charge current | 84A |
| Charge voltage @ 25 °C | Float charge: 2.23V, average charge: 2.35V Temperature compensation factor: -3 mV/°C |
| Terminal output | M10 copper terminal (HPb59-1) |
| Recharge time | See figure 2 |

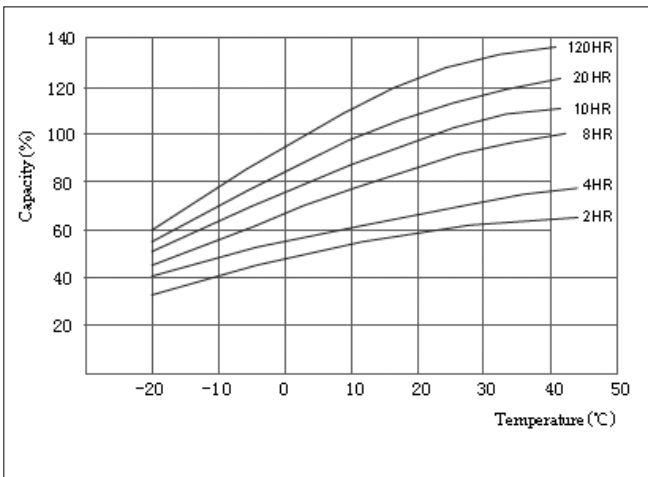
Discharge Characteristic



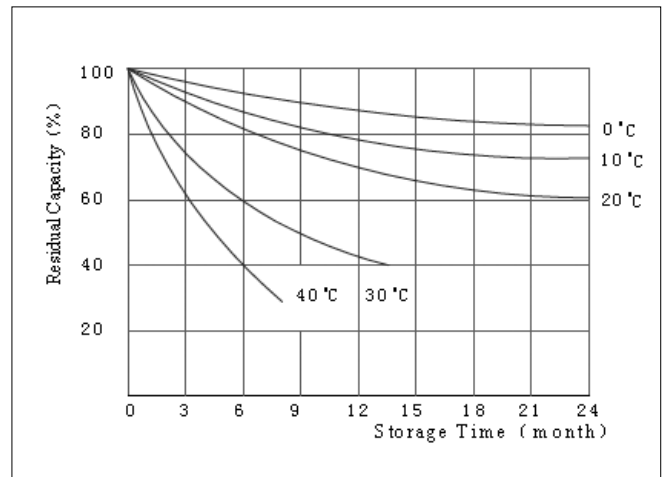
Constant voltage charge



Relationship of Capacity and Temperature



Relationship of Residual and Storage



Constant current discharge ratings-amperes at 25 °C

| | 5MIN | 10MIN | 15MIN | 30MIN | 45MIN | 1HR | 1,5HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR | 100HR | 120HR |
|-------|------|-------|-------|-------|-------|-----|-------|-----|-----|-----|-----|-----|------|-------|-------|-------|
| 1.90V | 363 | 313 | 250 | 234 | 210 | 174 | 130 | 117 | 91 | 75 | 64 | 47 | 39 | 19,67 | 5,13 | 4,35 |
| 1.85V | 420 | 368 | 303 | 260 | 223 | 191 | 143 | 128 | 97 | 80 | 68 | 49 | 41 | 21,63 | 5,4 | 4,58 |
| 1.80V | 432 | 412 | 384 | 318 | 245 | 222 | 181 | 141 | 105 | 86 | 74 | 52 | 43 | 22,71 | 5,61 | 4,76 |
| 1.75V | 450 | 445 | 442 | 348 | 258 | 236 | 199 | 146 | 109 | 89 | 76 | 53 | 45 | 23,61 | 5,78 | 4,90 |

Constant power discharge ratings-watts at 25 °C

| | 5MIN | 10MIN | 15MIN | 30MIN | 45MIN | 1HR | 1,5HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR | 100HR | 120HR |
|-------|------|-------|-------|-------|-------|-----|-------|-----|-----|-----|-----|-----|------|-------|-------|-------|
| 1.90V | 718 | 612 | 393 | 358 | 317 | 275 | 246 | 217 | 171 | 142 | 122 | 89 | 77 | 39,34 | 10,26 | 8,70 |
| 1.85V | 749 | 638 | 429 | 382 | 348 | 313 | 278 | 242 | 190 | 157 | 135 | 96 | 83 | 42,83 | 10,69 | 9,07 |
| 1.80V | 787 | 750 | 626 | 539 | 480 | 420 | 353 | 286 | 223 | 183 | 154 | 108 | 90 | 45,51 | 11,00 | 9,33 |
| 1.75V | 814 | 806 | 715 | 599 | 534 | 469 | 389 | 308 | 234 | 191 | 159 | 110 | 93 | 47,57 | 11,16 | 9,46 |