

DEEP CYCLE AGM VRLA Battery

CL2-400

CSPower CL series batteries are designed to have a large amount of stored current discharged between charging sessions, with very heavy non-porous battery plates to withstand repeated major discharging and charging cycle (deep cycle). The CSPower deep cycle AGM battery uses a different chemistry for the plates active paste material, and a slightly stronger electrolyte than normal battery electrolyte, thus the CL range features 30% higher cyclic life with 12-15 years of float life when compared to the standard Duration range.

2V
Voltage

400Ah
Capacity

AGM
Technology

VRLA
Battery



COMPLIED STANDARDS



GENERAL FEATURES

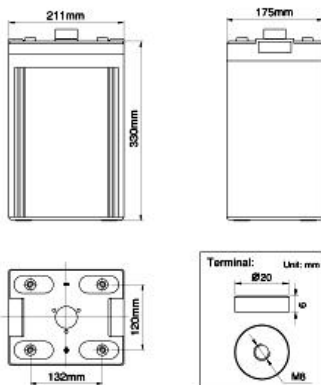
- 30% more cyclic life through innovation at the PAM additives
- Long life expectancy of 10-15 years in floating condition
- Thick flat plate with high Tin low Calcium alloy
- Excellent deep discharge recovery capability
- Deep cycle performance: up to 2000 cycles @30% DOD

APPLICATIONS

- Telecom Control Equipments
- UPS systems, Inverter
- Power Equipments
- Solar&Wind
- Emergency Power Systems

DIMENSIONS & WEIGHT

| | |
|-----------------------|-----------|
| Length(mm/inch) | 211/8.31 |
| Width(mm/inch) | 175/6.9 |
| Height(mm/inch) | 330/13 |
| Total Height(mm/inch) | 366/14.4 |
| Weight(kg/lbs) | 26.2/57.8 |



TECHNICAL SPECIFICATIONS

| | | |
|--|---------------------------|--|
| Nominal Voltage | | 2V(1 cell per unit) |
| Design Floating Life @25°C | | 12 Years |
| Nominal Capacity @25°C (10 hour rate@40.0A,1.8V) | | 400Ah |
| Capacity @25°C | 20hour rate (21.2A,1.8V) | 424Ah |
| | 5 hour rate (71A, 1.75V) | 355Ah |
| | 1 hour rate (242A, 1.6V) | 242Ah |
| Internal Resistance | Full Charged Battery@25°C | ≤0.39mΩ |
| Ambient Temperature | Discharge | -15°C~45°C |
| | Charge | -15°C~45°C |
| | Storage | -15°C~45°C |
| Max.Discharge Current@25°C | | 800A(5s) |
| Capacity affected by Temperature (10 hour) | 40°C | 105% |
| | 25°C | 100% |
| | 0°C | 85% |
| | -15°C | 65% |
| Self-Discharge@25°C per Month | | 3% |
| Charge (Constant Voltage) @25°C | Standby Use | Initial Charging Current Less than 60A Voltage 2.23-2.27V |
| | Cycle Use | Initial Charging Current Less than 60A Voltage 2.33-2.37V |

BATTERY DISCHARGE TABEL

Discharge Constant Current per Cell (Amperes at 25°C)

| F.V/Time | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-----|-----|-----|----|----|------|------|
| 1.60V | 598 | 396 | 295 | 242 | 154 | 110 | 75 | 49 | 44.0 | 23.3 |
| 1.65V | 588 | 389 | 289 | 238 | 151 | 108 | 73 | 48 | 43.2 | 22.9 |
| 1.70V | 577 | 382 | 284 | 233 | 148 | 106 | 72 | 47 | 42.4 | 22.5 |
| 1.75V | 566 | 374 | 279 | 229 | 146 | 104 | 71 | 47 | 41.6 | 22.0 |
| 1.80V | 544 | 360 | 268 | 220 | 140 | 100 | 68 | 45 | 40.0 | 21.2 |

Discharge Constant Power per Cell (Watts at 25°C)

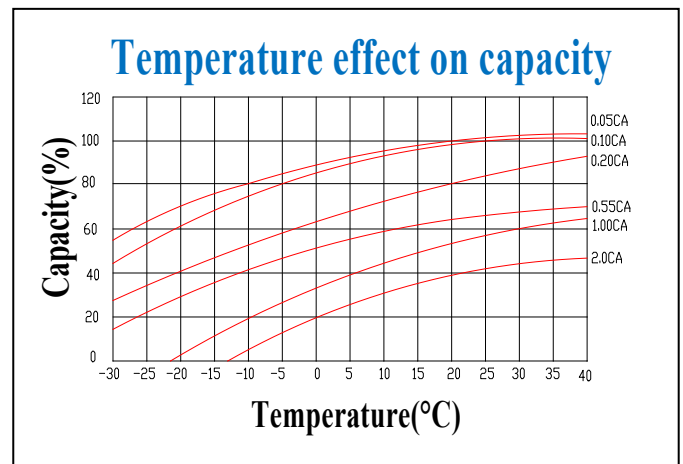
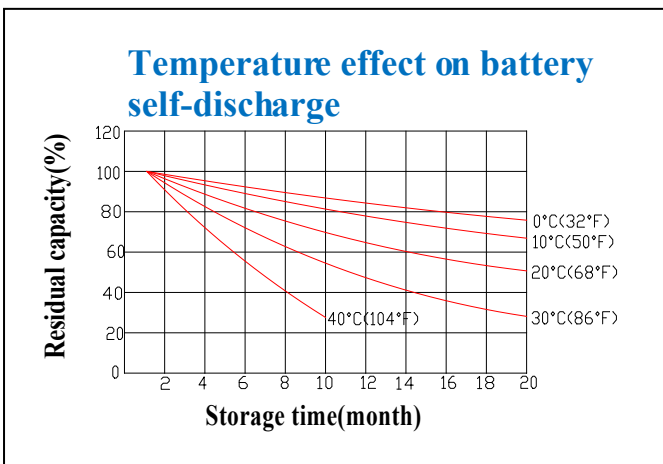
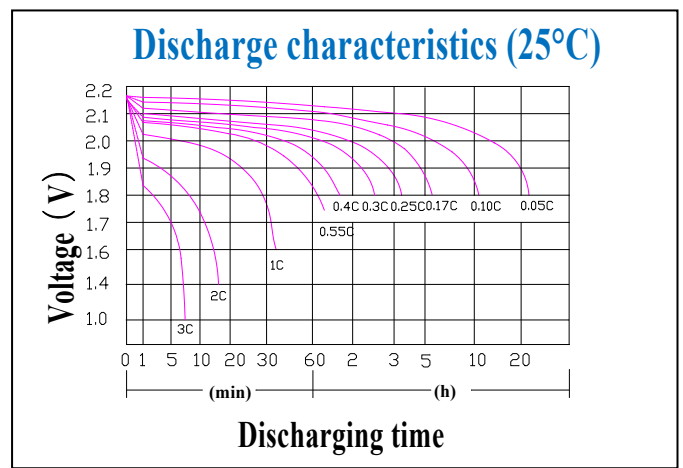
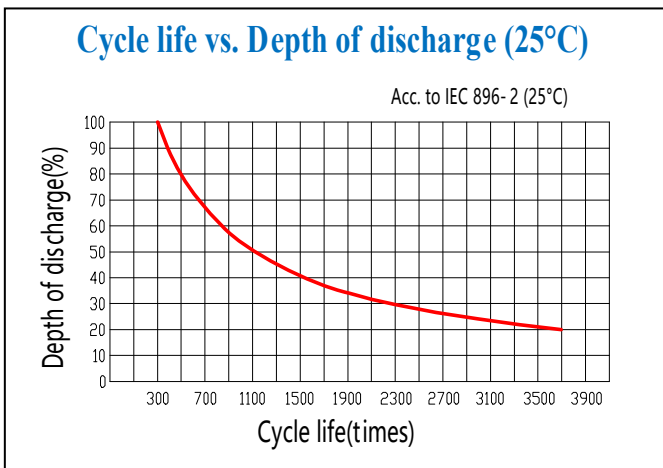
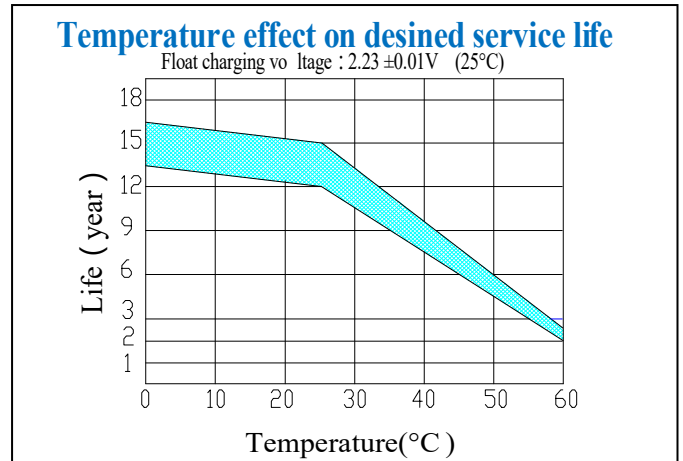
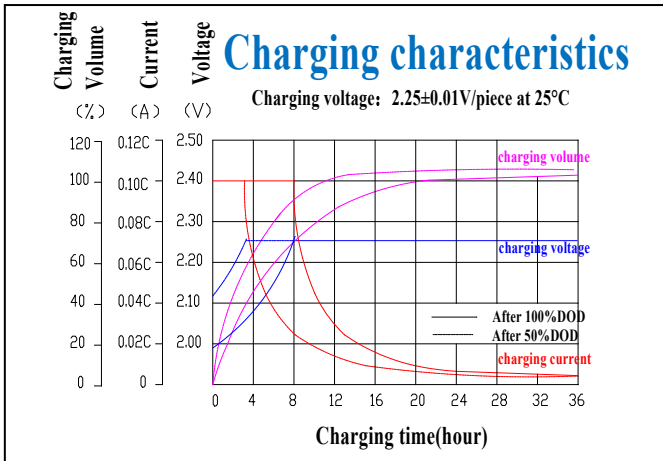
| F.V/Time | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-----|-----|-----|-----|----|------|------|
| 1.60V | 1152 | 762 | 567 | 466 | 296 | 212 | 144 | 95 | 84.7 | 44.9 |
| 1.65V | 1131 | 748 | 557 | 457 | 291 | 208 | 141 | 93 | 83.2 | 44.1 |
| 1.70V | 1110 | 735 | 547 | 449 | 286 | 204 | 139 | 91 | 81.6 | 43.3 |
| 1.75V | 1089 | 721 | 537 | 440 | 280 | 200 | 136 | 90 | 80.1 | 42.4 |
| 1.80V | 1047 | 693 | 516 | 424 | 270 | 193 | 131 | 86 | 77.0 | 40.8 |

Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact CSPower for the latest information.

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PERFORMANCE CHARACTERISTICS



BATTERY CONSTRUCTION

| Component | Positive plate | Negative plate | Container & Cover | Safety valve | Terminal | Separator | Electrolyte | Pillar seal |
|-----------|--|---|-------------------------------|--------------------------------------|-------------------------|--|----------------------------------|-----------------------------|
| Features | Thick high Sn low Ca grid with special paste | Balanced Pb-Ca grid for improved recombination efficiency | Fire resistance ABS (UL94-V0) | Flame Si-Rubber and aging resistance | Female Copper Insert M8 | Advanced AGM separator for high pressure cell design | Dilute high purity sulfuric acid | Two layers epoxy resin seal |