

# FP12200(12V20Ah)

## Specifications

|  |              |  |
|--|--------------|--|
| Nominal Voltage                              |              | 12 V   |
| Capacity<br>(25°C)                           | 20HR(10.5V)  | 20 Ah  |
|  | 10HR(10.5V)  | 18.6Ah   |
|  | 1HR(9.60V)   | 13Ah   |
| Dimension                                    | Length       | 181 ± 2mm (7.13inch)                                     |
|  | Width        | 77 ± 1mm (3.03inch)                                      |
|  | Height       | 167 ± 2mm (6.57inch)                                     |
|  | Total Height | 167 ± 2mm (6.57inch)                                     |
| Approx. Weight                               |              | 5.6kg (12.4lbs) ± 4%                                     |
| Terminal type                                |              | T3/T8  |
| Internal resistance<br>(Fully charged, 25°C) |              | Approx. 12m Ω  |
| Capacity affected by temperature<br>(20HR)   | 40°C         | 102%   |
|  | 25°C         | 100%   |
|  | 0°C          | 85%  |
|  | -15°C        | 65%  |
| Self-discharge<br>(25°C)                     | 3 month      | Remaining Capacity: 91%                                  |
|  | 6 month      | Remaining Capacity: 82%                                  |
|  | 12 month     | Remaining Capacity: 65%                                  |
| Nominal operating temperature                |              | 25°C ± 3°C (77°F ± 5°F)                                  |
| Operating temperature range                  | Discharge    | -15°C ~ 50°C (5°F ~ 122°F)                               |
|  | Charge       | -10°C ~ 50°C (14°F ~ 122°F)                              |
|  | Storage      | -20°C ~ 50°C (-4°F ~ 122°F)                              |
| Float charging voltage(25°C)                 |              | 13.60 to 13.80V<br>Temperature compensation:<br>-18mV/°C |
| Cyclic charging voltage(25°C)                |              | 14.50 to 14.90V<br>Temperature compensation:<br>-30mV/°C |
| Maximum charging current                     |              | 6A   |
| Terminal material                            |              | Copper   |
| Maximum discharge current                    |              | 300A(5 sec.)   |
| Designed floating life(20°C)                 |              | 10years  |

- ◆ Absorbent glass mat technology;
- ◆ Recognized by UL & CE;
- ◆ ABS container.

## Constant Current Discharge Characteristics (A, 25°C)

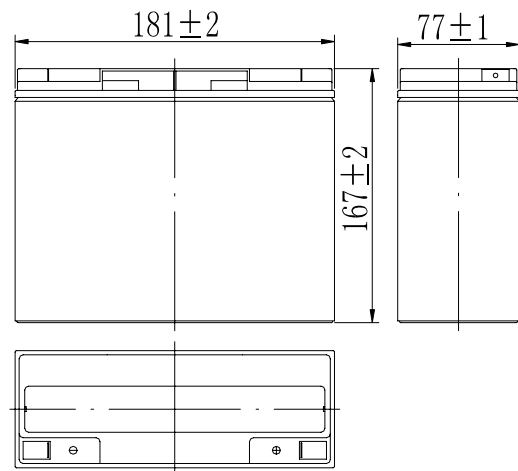
| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 9.60V    | 71.6 | 48.0  | 38.0  | 21.2  | 13.0  | 7.11 | 5.10 | 4.08 | 3.47 | 2.24 | 1.89 | 1.02 |
| 9.90V    | 69.3 | 46.6  | 37.1  | 20.8  | 12.8  | 7.06 | 5.07 | 4.06 | 3.45 | 2.23 | 1.88 | 1.01 |
| 10.2V    | 66.5 | 44.6  | 35.7  | 20.1  | 12.5  | 7.00 | 5.04 | 4.03 | 3.42 | 2.22 | 1.87 | 1.01 |
| 10.5V    | 63.6 | 42.7  | 34.5  | 19.7  | 12.2  | 6.90 | 5.00 | 4.00 | 3.40 | 2.20 | 1.86 | 1.00 |
| 10.8V    | 59.3 | 40.3  | 32.7  | 18.9  | 11.9  | 6.72 | 4.85 | 3.88 | 3.30 | 2.13 | 1.82 | 0.98 |

## Constant Power Discharge Characteristics (Watt, 25°C)

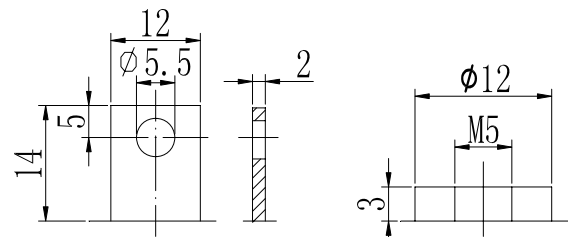
| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 9.60V    | 799  | 541   | 433   | 243   | 151   | 83.1 | 60.6 | 48.6 | 41.4 | 26.9 | 22.7 | 12.2 |
| 9.90V    | 774  | 525   | 423   | 238   | 148   | 82.6 | 60.2 | 48.3 | 41.2 | 26.8 | 22.6 | 12.1 |
| 10.2V    | 742  | 504   | 407   | 231   | 145   | 81.9 | 59.8 | 48.0 | 40.9 | 26.6 | 22.5 | 12.1 |
| 10.5V    | 710  | 482   | 393   | 225   | 142   | 80.7 | 59.4 | 47.6 | 40.6 | 26.4 | 22.3 | 12.0 |
| 10.8V    | 662  | 455   | 373   | 217   | 137   | 78.6 | 57.6 | 46.2 | 39.4 | 25.6 | 21.9 | 11.8 |

Note: The above characteristics data can be obtained within three charge/discharge cycles.

## Dimensions



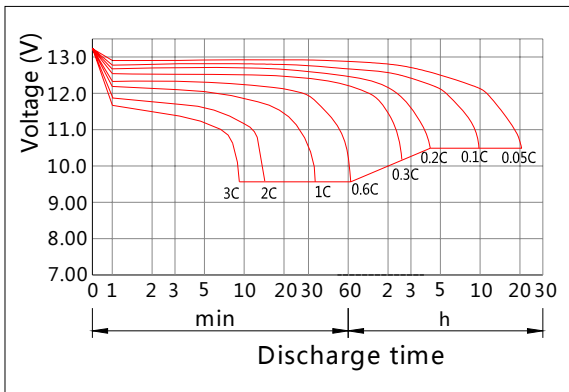
## Terminal



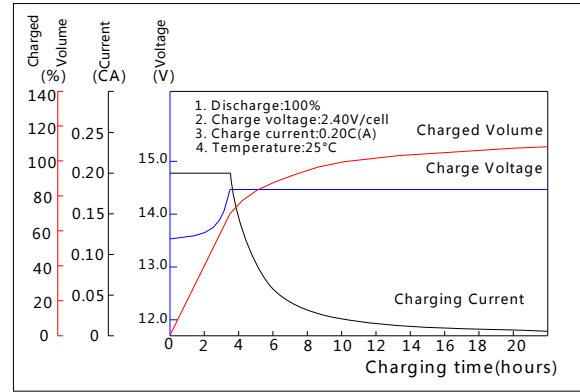
Terminal T3

Terminal T8

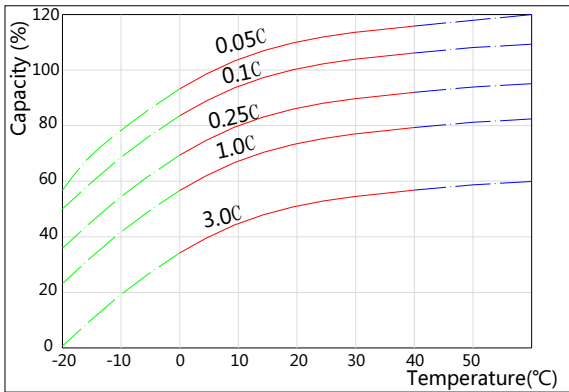
**Discharge Characteristics(25°C)**



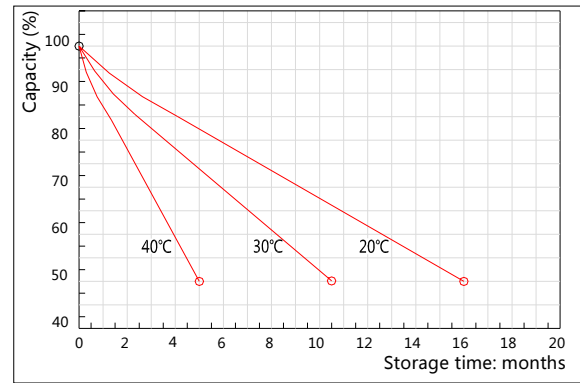
**Charging Characteristics(25°C)**



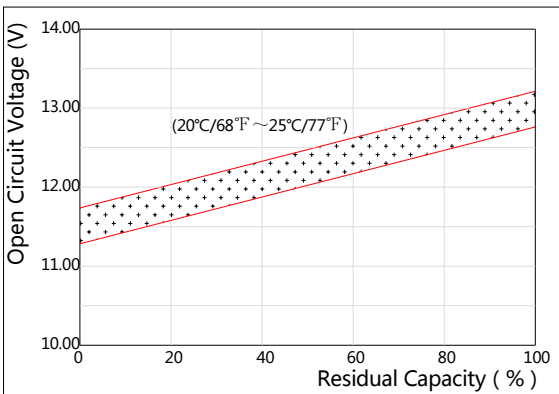
**Effect of Temperature on Capacity**



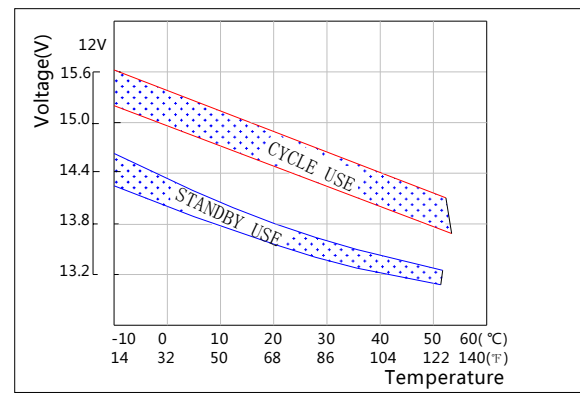
**Self-discharge Characteristics**



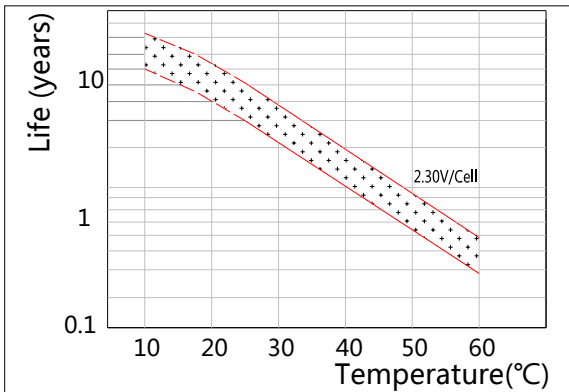
**The Relationship for Open Circuit Voltage and Residual Capacity (25°C)**



**The Relationship for Charging Voltage and Temperature**



**Floating Life on Temperature**



**Cycle Life on D.O.D(25°C)**

