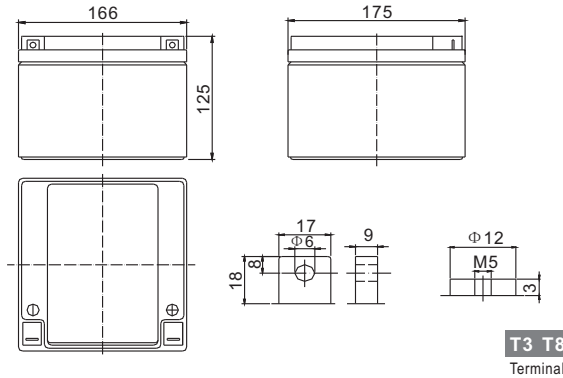


# Standard Series FP12280 12V28Ah

**FirstPower®**

## Dimension(mm)



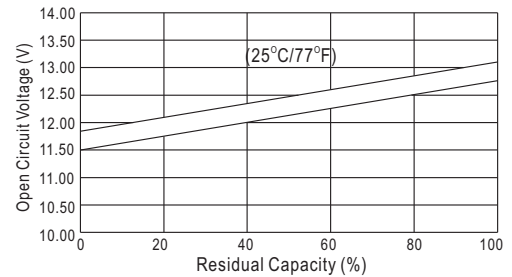
## Specification

|                      |                     |                                 |
|----------------------|---------------------|---------------------------------|
| Nominal Voltage      |                     | 12 V                            |
| Capacity(20HR, 25°C) |                     | 28Ah                            |
| Dimension            | Length              | 166mm (6.54inch)                |
|                      | Width               | 175mm (6.89inch)                |
|                      | Height              | 125mm (4.92inch)                |
|                      | Total Height(T3/T8) | 125mm(4.92inch)/125mm(4.92inch) |
| Approx. Weight       |                     | 8.8kg (19.4lbs)                 |

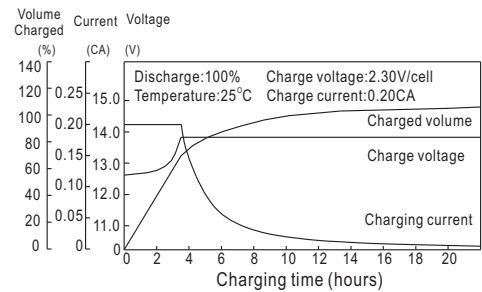
## Characteristics

|  |              |                         |
|--|--------------|-------------------------|
| Capacity 20°C<br>(68°F) To<br>1.70V/Cell         | 20 hour rate | 28Ah                    |
|  | 10 hour rate | 26.2Ah                  |
|  | 5 hour rate  | 24Ah                    |
|  | 1 hour rate  | 18.2Ah                  |
|  | 15 min rate  | 12Ah                    |
| Internal resistance(Fully charged, 25°C)         |              | Approx. 10mΩ            |
| Capacity<br>affected by<br>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                      |              | -15°C~50°C(5°F~122°F)   |
| Float charging voltage(25°C)                     |              | 13.60 to 13.80V         |
| Cyclic charging voltage(25°C)                    |              | 14.50 to 14.90V         |
| Maximum charging current                         |              | 8.4A                    |
| Terminal material                                |              | Copper                  |
| Maximum discharge current                        |              | 420A(5 Sec.)            |

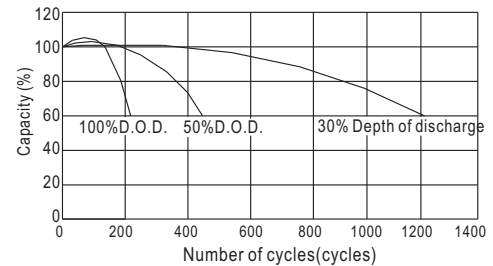
## The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



## Charging Characteristics(25°C)



## Cycle Life(25°C)



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

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 3h   | 5h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|
| 9.60V    | 108  | 68.0  | 50.0  | 29.5  | 19.0  | 7.11 | 4.87 | 2.64 | 1.42 |
| 10.2V    | 103  | 64.6  | 48.0  | 28.3  | 18.2  | 7.00 | 4.80 | 2.62 | 1.41 |
| 10.8V    | 96.4 | 60.7  | 45.6  | 26.9  | 17.3  | 6.86 | 4.70 | 2.60 | 1.40 |

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

| 5min | 10min | 15min | 30min | 60min | 3h   | 5h   | 10h  | 20h  |
|------|-------|-------|-------|-------|------|------|------|------|
| 1205 | 767   | 570   | 338   | 220   | 84.4 | 58.2 | 31.7 | 17.1 |
| 1145 | 729   | 547   | 325   | 211   | 83.2 | 57.3 | 31.4 | 16.9 |
| 1076 | 685   | 520   | 308   | 201   | 81.5 | 56.2 | 31.4 | 16.8 |