

PR121500 is a general purpose battery with 5 years life in standby service, or more than 260 cycles at 100% D.O.D by cyclic use. As with all PROSTAR batteries, all PR models are rechargeable, highly efficient, leak proof and maintenance free.



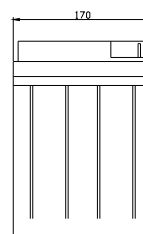
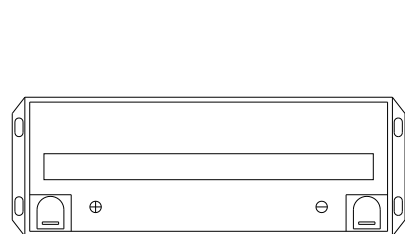
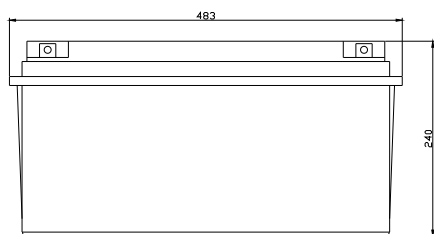
## Specification

|   |  |
|---|--|
| <b>Cells Per Unit</b>                             | 6  |
| <b>Voltage Per Unit</b>                           | 12   |
| <b>Capacity</b>                                   | 150Ah@10hr-rate to 1.75V per cell @25°C  |
| <b>Weight</b>                                     | Approx. 44.5 Kg  |
| <b>Max. Discharge Current</b>                     | 1500A (5 sec)  |
| <b>Internal Resistance</b>                        | Approx. 4 m  |
| <b>Operating Temperature Range</b>                | Discharge: -20 °C~60°C<br>Charge: 0C~50°C<br>Storage: -20C~60°C  |
| <b>Normal Operating Temperature Range</b>         | 25°C ± 5C  |
| <b>Float charging Voltage</b>                     | 13.6 to 13.8 VDC/unit Average at 25°C  |
| <b>Recommended Maximum Charging Current Limit</b> | 45A  |
| <b>Equalization and Cycle Service</b>             | 14.6 to 14.8 VDC/unit Average at 25°C  |
| <b>Self Discharge</b>                             | PROSTAR batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using. |
| <b>Terminal</b>                                   | Terminal F5/F12  |
| <b>Container Material</b>                         | A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.  |

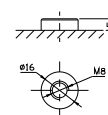


## Dimensions

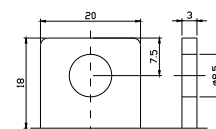
**Unit: mm** Dimension: 483(L) × 170(W) × 240 (H)



Terminal F12



Terminal F5



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

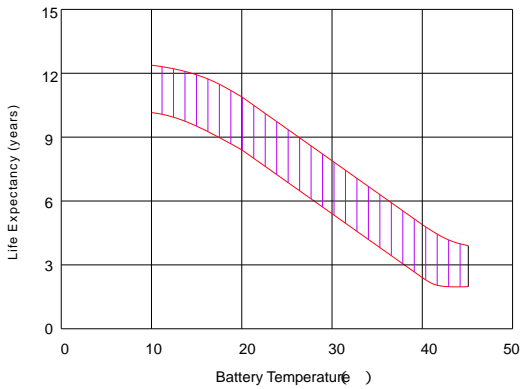
| F.V/Time | 5MIN   | 10MIN  | 15MIN  | 30MIN  | 1HR    | 2HR    | 3HR    | 4HR    | 5HR    | 8HR    | 10HR   | 20HR   |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 9.60V    | 522.40 | 385.92 | 280.80 | 172.50 | 97.500 | 54.464 | 39.150 | 32.400 | 26.520 | 18.633 | 15.754 | 8.3317 |
| 10.0V    | 508.44 | 367.20 | 275.04 | 169.65 | 97.050 | 54.054 | 39.000 | 32.250 | 26.364 | 18.481 | 15.603 | 8.1802 |
| 10.2V    | 479.10 | 354.24 | 270.72 | 168.15 | 96.150 | 53.645 | 38.700 | 32.100 | 26.208 | 18.330 | 15.451 | 8.0287 |
| 10.5V    | 430.21 | 326.88 | 257.76 | 163.95 | 95.250 | 53.235 | 38.550 | 31.800 | 25.896 | 18.178 | 15.300 | 7.8772 |
| 10.8V    | 400.32 | 298.08 | 237.60 | 156.75 | 93.000 | 52.280 | 37.500 | 31.050 | 25.428 | 17.875 | 15.149 | 7.7257 |
| 11.1V    | 348.48 | 266.40 | 213.12 | 146.85 | 88.350 | 49.959 | 35.850 | 29.550 | 24.336 | 17.118 | 14.694 | 7.2713 |

### Constant Power Discharge Characteristics: W(25°C)

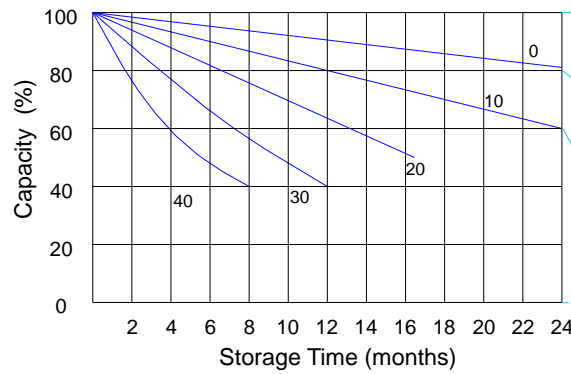
| F.V/Time | 5MIN   | 10MIN  | 15MIN  | 30MIN  | 1HR    | 2HR    | 3HR    | 4HR    | 5HR    | 8HR    | 10HR   | 20HR   |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 9.6V     | 4975.4 | 3750.8 | 2761.7 | 1946.7 | 1115.1 | 626.54 | 451.80 | 374.40 | 307.01 | 216.21 | 177.15 | 93.571 |
| 10.0V    | 4873.8 | 3582.5 | 2704.3 | 1922.4 | 1109.7 | 624.08 | 450.90 | 373.50 | 305.14 | 215.31 | 175.33 | 92.663 |
| 10.2V    | 4600.7 | 3463.2 | 2667.6 | 1899.9 | 1101.6 | 618.35 | 448.20 | 371.70 | 304.20 | 213.49 | 174.42 | 91.754 |
| 10.5V    | 4142.9 | 3200.0 | 2543.6 | 1856.7 | 1090.8 | 612.61 | 445.50 | 369.00 | 301.39 | 211.67 | 172.61 | 90.846 |
| 10.8V    | 3841.8 | 2905.5 | 2337.1 | 1772.1 | 1063.8 | 603.60 | 434.70 | 359.10 | 296.71 | 207.13 | 170.79 | 89.938 |
| 11.1V    | 3316.3 | 2580.3 | 2086.9 | 1660.5 | 1008.0 | 575.76 | 413.10 | 342.00 | 281.74 | 199.86 | 165.34 | 86.304 |

All mentioned values are average values.

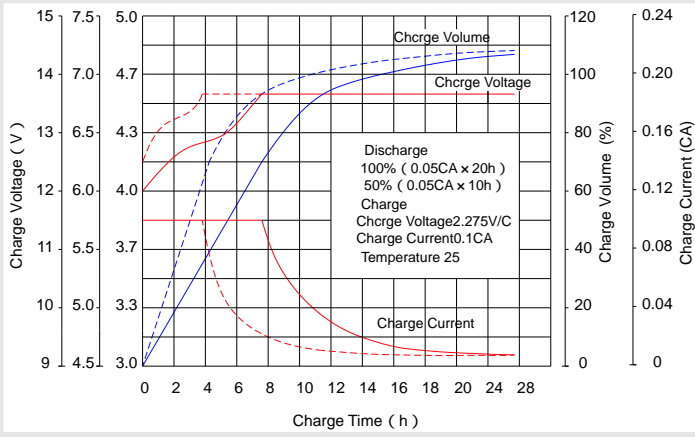
### Effect of temperature on long term float life



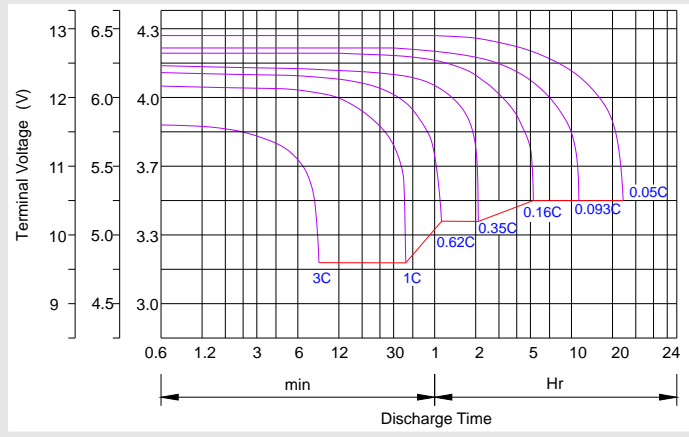
### Storage characteristic



### Charge characteristic Curve for standby use



### Discharge characteristic Curve



### Capacity Factors With Different Temperature

| Battery Type |        | -20 | -10 | 0   | 5   | 10  | 20  | 25   | 30   | 40   | 45   |
|--------------|--------|-----|-----|-----|-----|-----|-----|------|------|------|------|
| GEL Battery  | 6V&12V | 50% | 70% | 83% | 85% | 90% | 98% | 100% | 102% | 104% | 105% |
|              | 2V     | 60% | 75% | 85% | 88% | 92% | 99% | 100% | 103% | 105% | 106% |
| AGM Battery  | 6V&12V | 46% | 66% | 76% | 83% | 90% | 98% | 100% | 103% | 107% | 109% |
|              | 2V     | 55% | 70% | 80% | 85% | 92% | 99% | 100% | 104% | 108% | 110% |

### Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/cell | 1.75V      | 1.70V               | 1.60V      |
|--------------------------------|------------|---------------------|------------|
| Discharge Current (A)          | ( A ) 0.2C | 0.2C < ( A ) < 1.0C | ( A ) 1.0C |

**Charge the batteries at least once every six months, if they are stored at 25C°**

Charging Method:

|                  |   |
|------------------|---|
| Constant Voltage | -0.2Cx2h+2.4-2.45V/cellx24h, Max. Current 0.3CA |
| Constant Current | -0.2Cx2h+0.1CAx12h                              |
| Fast             | -0.2Cx2h+0.3CAx4.0h                             |

### Maintenance & Cautions

|   |
|---|
| <b>Float Service:</b>   |
| Every month, recommend inspection every battery voltage.  |
| Every three months, recommend equalization charge for one time.   |
| Equalization charge method:   |
| Discharge: 100% rate capacity discharge.  |
| Charge: Max. current 0.3CA, constant voltage 2.4-2.45V/Cell charge 24h.   |
| Effect of temperature on float charge voltage: -3mV/ /Cell.   |
| Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage. |