



Pr1290 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.

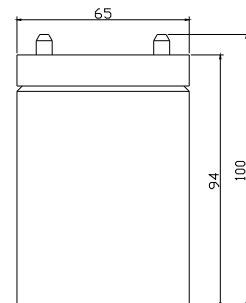
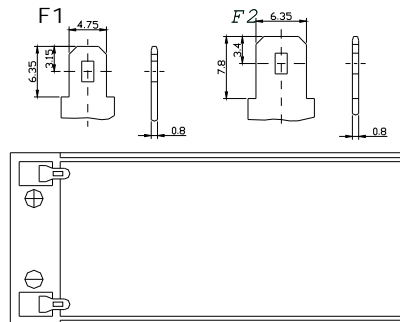
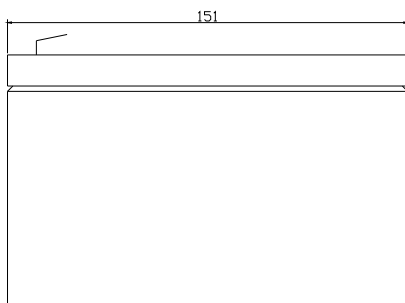
## Specification

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12
<b>Capacity</b>	9.0Ah@20hr-rate to 1.75V per cell @25?
<b>Weight</b>	Approx. 2.55Kg
<b>Max. Discharge Current</b>	90 A (5 sec)
<b>Internal Resistance</b>	Approx. 18 m
<b>Operating Temperature Range</b>	Discharge: -20? ~60? Charge: 0? ~50? Storage: -20? ~60?
<b>Normal Operating Temperature Range</b>	25? ± 5?
<b>Float charging Voltage</b>	13.7 to 13.9 VDC/unit Average at 25?
<b>Recommended Maximum Charging Current Limit</b>	2.7 A
<b>Equalization and Cycle Service</b>	14.6 to 14.8 VDC/unit Average at 25C
<b>Self Discharge</b>	PROSTAR batteries can be stored for more than 6 months at 25? . Self-discharge ratio less than 3% per month at 25? . Please charge batteries before using.
<b>Terminal</b>	Faston Tab 187(F1)/Faston tab 250(F2)
<b>Constainer Material</b>	A.B.S. (UL94-HB) , Flammability resistance of UL94-V2 can be available upon request.



## Dimensions

**Unit: mm** Dimension: 151(L) × 65(W) × 100(H)



### Constant Current Discharge Characteristics : A(25? )

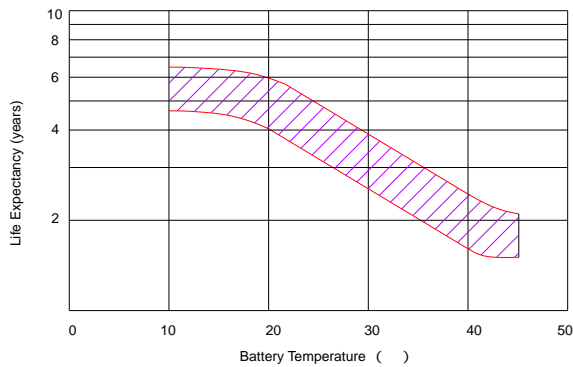
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	35.550	23.760	18.270	10.557	6.2460	3.2557	2.3040	1.8900	1.5666	1.0391	0.8996	0.5049
10.0V	34.266	22.835	17.684	10.395	6.2100	3.2322	2.2950	1.8810	1.5574	1.0350	0.8905	0.4865
10.2V	32.414	22.129	17.278	10.314	6.1650	3.2243	2.2860	1.8720	1.5481	1.0309	0.8813	0.4774
10.5V	29.282	20.709	16.379	10.080	6.0750	3.1852	2.2770	1.8630	1.5388	1.0267	0.8721	0.4590
10.8V	26.151	19.298	15.470	9.8370	5.9850	3.1304	2.2590	1.8540	1.5296	1.0226	0.8537	0.4406
11.1V	23.047	17.878	14.571	9.5940	5.9040	3.0835	2.2410	1.8450	1.5203	1.0184	0.8446	0.4315

### Constant Power Discharge Characteristics : W(25? )

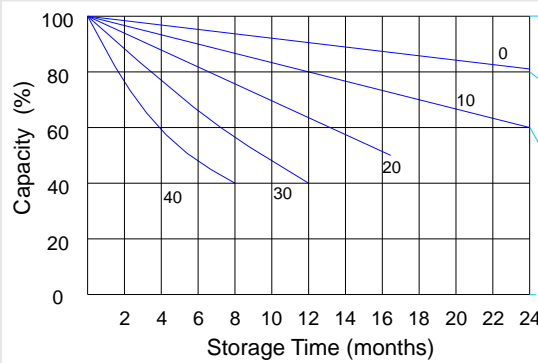
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	388.80	252.72	205.36	126.68	74.898	39.021	27.594	22.572	22.081	12.494	10.635	5.9449
10.0V	378.68	252.45	202.41	124.63	74.682	38.786	27.540	22.518	21.914	12.394	10.526	5.7267
10.2V	371.10	244.88	197.77	123.82	74.520	38.692	27.486	22.518	21.859	12.377	10.417	5.6176
10.5V	335.35	234.78	187.47	120.85	73.278	38.082	27.324	22.356	21.803	12.343	10.308	5.3995
10.8V	299.56	219.63	177.12	117.99	72.036	37.565	27.108	22.194	21.747	12.293	10.144	5.2358
11.1V	263.81	204.48	166.82	115.13	70.794	37.002	26.892	22.032	21.692	12.293	9.9808	5.0722

All mentioned values are average values.

### Effect of temperature on long term float life



### Storage characteristic



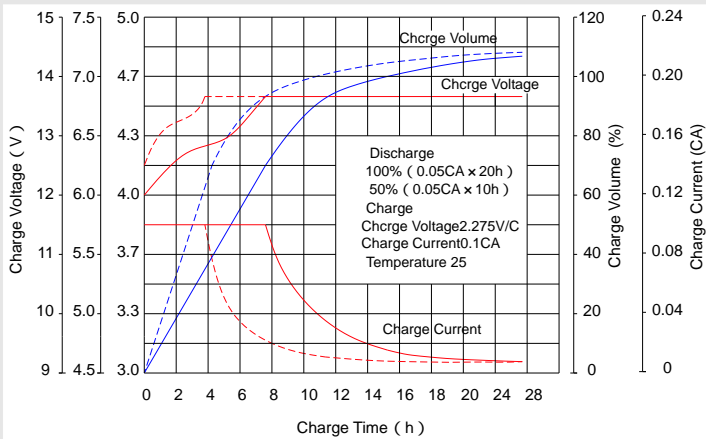
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

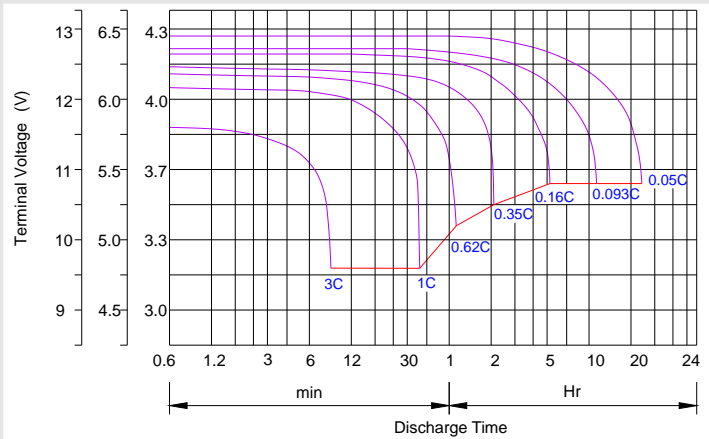
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

### 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 25°C**

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.