

PR12180 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.

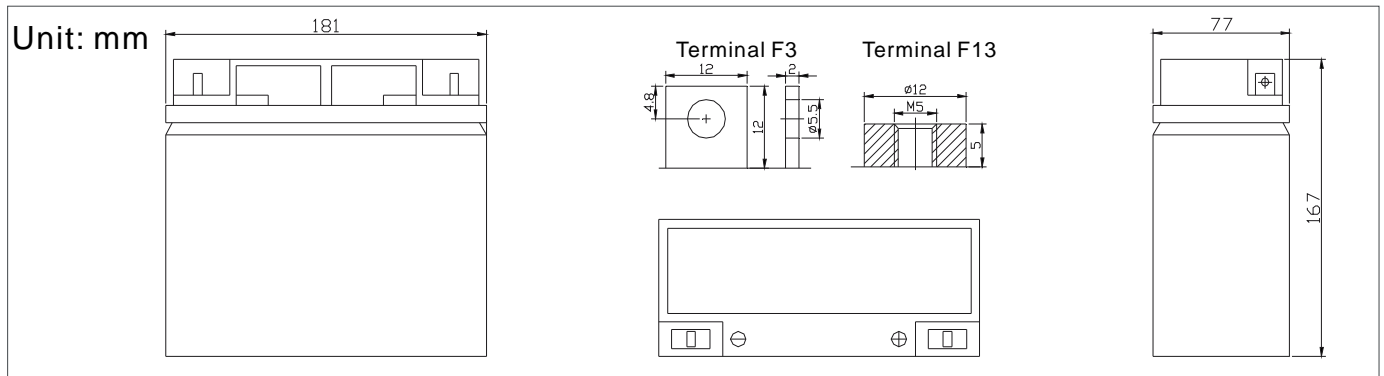


## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	18.0Ah@20hr-rate to 1.75V per cell @25?
Weight	Approx.5.2Kg
Max. Discharge Current	170A(5 sec)
Internal Resistance A	Approx. 14m?
Operating Temperature Range	Discharge: -20? ~60? Charge: 0? ~50? Storage: -20? ~60?
Normal Operating Temperature Range	25? ±5?
Float charging Voltage	13.6 to 13.8VDC/unit Average at 25?
Recommended Maximum Charging Current Limit	5.1A
Equalization and Cycle Service	14.4 to 15.0VDC/unit Average at 25?
Self Discharge	PROSTAR batteries can be stored for more than 6 months at 25? . Please charge batteries before using. For higher temperature, the time interval will be shorter.
Terminal	Terminal F3/F13
Container Material	A.B.S. (UL94-HB) Flammability resistance of UL94-V2 can be available upon request



## Dimensions



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

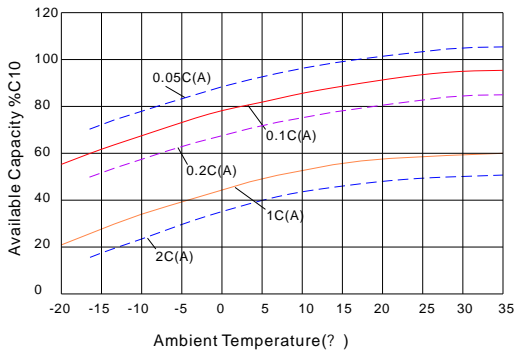
F.V./Time	5M N	10M N	15M N	30M N	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	70 6	47 2	36 3	19 9	11 8	7 07	4 35	3 57	2 87	2 11	1 67	0 94
10.0V	66 0	44 0	34 1	19 6	11 7	7 02	4 34	3 55	2 86	2 11	1 65	0 90
10.2V	62 5	42 7	33 3	19 5	11 6	7 00	4 32	3 54	2 84	2 11	1 63	0 88
10.5V	56 4	39 9	31 6	19 0	11 5	6 92	4 30	3 52	2 82	2 11	1 62	0 85
10.8V	50 4	37 2	29 8	18 6	11 3	6 80	4 27	3 50	2 81	2 09	1 58	0 82
11.1V	44 4	34 5	28 1	18 1	11 2	6 70	4 23	3 49	2 79	2 09	1 56	0 80

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

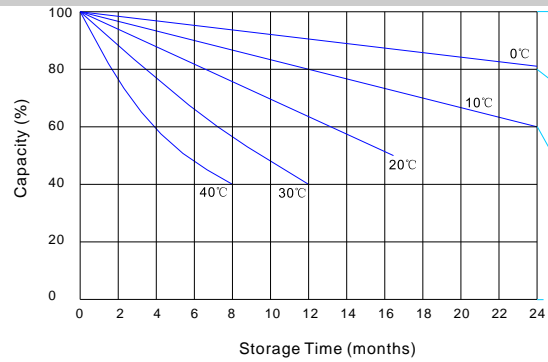
F.V./Time	5M N	10M N	15M N	30M N	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	136 00	88 40	71 83	39 88	23 58	14 13	8 69	7 11	6 75	4 23	3 32	1 85
10.0V	127 50	85 00	68 15	39 24	23 51	14 04	8 67	7 09	6 70	4 23	3 28	1 79
10.2V	124 95	82 45	66 59	38 98	23 46	14 01	8 65	7 09	6 68	4 20	3 25	1 75
10.5V	112 91	79 05	63 12	38 05	23 07	13 79	8 60	7 04	6 66	4 18	3 21	1 68
10.8V	100 86	73 95	59 64	37 15	22 68	13 60	8 53	6 99	6 65	4 17	3 16	1 63
11.1V	88 83	68 85	56 17	36 24	22 29	13 40	8 47	6 94	6 63	4 17	3 11	1 58

All mentioned values are average values

### Temperature effects curve



### Storage characteristic



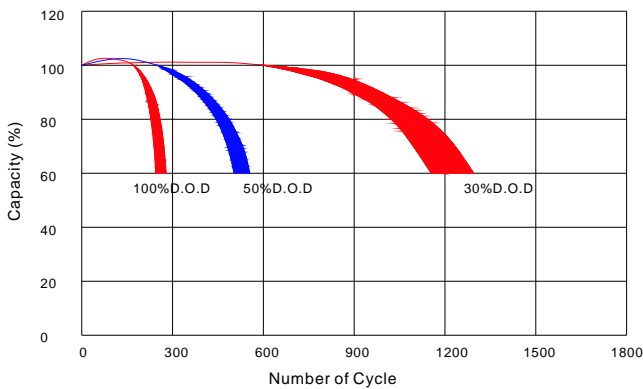
Supplementary charge required (Carry out supplementary y charge before use if 100% capacity is requires)

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

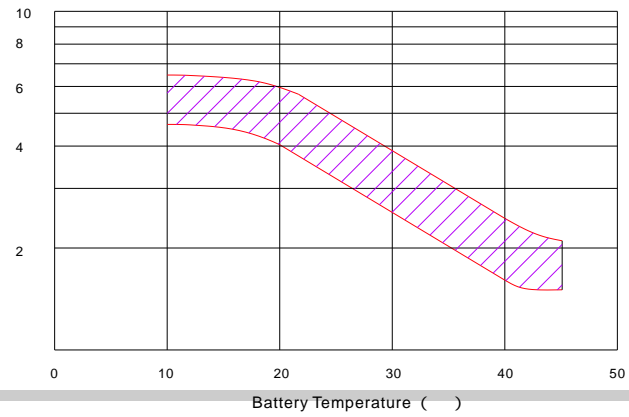
Supplementary charge may often fail to recover the capacity. The batter y should never be left standing till this state is reached

Supplementary y charge and storage guidelines

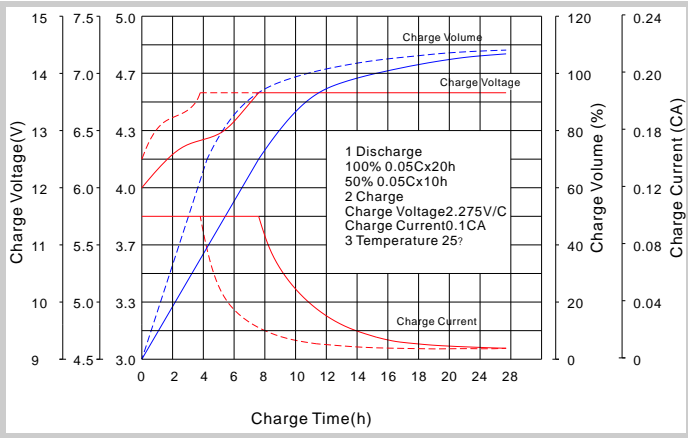
### Life characteristics of cyclic use



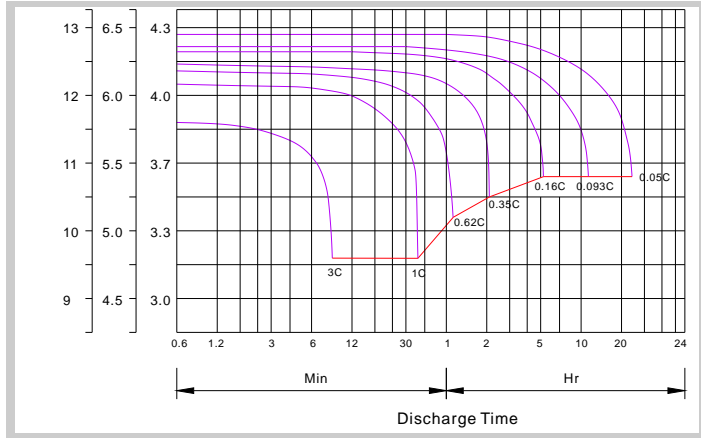
### Effect of temperature on long term float life



### Charge characteristic Curve for standby use



### Discharge characteristic curve



### Charging Procedures

Application	Charge Voltage (V)			Max.Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°	14.7	14.4~15.0	0.3C
Standby	25°	13.7	13.6~13.8	0.3C

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A)<0.20C	0.20C<(A)<1.0C	(A)>1.0C

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

Charging Method:

Constant Voltage	-0.2C+14.4~15.0V,24h,Max. Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h

### Charging Procedures(6V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Us	25°	7.35	7.25~7.45	0.3C
Standby	25°	6.85	6.8~6.9	0.3C