

PC18-12 12V 18AH

## **SLA Battery**

Capacity (25°C)	20HR (0.90A, 10.5V) = 18.00AH 10HR (1.73A, 10.5V) = 17.30AH 5HR (3.24A, 10.5V) = 16.20AH 1HR (10.85A, 10.5V) = 10.85AH
Operating Temperature Range	Charge = -15°C to +50°C Discharge = -20°C to +60°C Storage = -20°C to +60°C
Approx. Weight	5.5kg
Internal Resistance	Fully charged at 25°C : ≤ 12mΩ
Self Discharge	2% per month at (25°C)
Capacity Affected by Temp. (20HR)	40°C = 102% 25°C = 100% 0°C = 85% -15°C = 65%
Charge Voltage (25°C)	Cycle Use = 14.4-14.7V (-30/mV/°C) Max Current = 5A Float Use = 13.5-13.8V (-20mV/°C)
Dimensions (Nominal)	Length: 181mm (7.12 in.) Width: 77mm (3.03 in.) Height: 167mm (6.57 in.) Total Height: 167mm (6.57 in.)

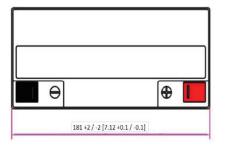


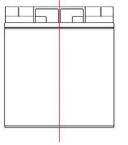
## APPLICATIONS

Multipurpose Telecommunications UPS Medical Equipment Alarm & Security System Comm. Power Supply Elec. Power System (EPS) Emergency Backup Power DC Power Supply Auto Control System Traffic Control Signaling Emergency Lighting

167 +2 / -2 [6.57 +0.1 / -0.1]

77 +1.5/-2 [6.57 +0.06/-0.1

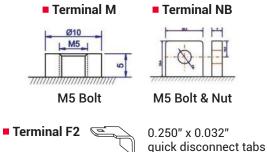




- Completely sealed, maintenance-free, low self-discharge
- State of the art AGM and grid alloy formula technology
- Non-spillable, stable quality and high reliability with excellent re-charging performance
- Floating and standby use up to: 5 years
- Cycle use: Up to 260 cycles at 100% DoD
- Cycle use: Up to 500 Cycles at 50% DoD
- Container and Cover Material ABS UL94-HB (optional UL94-V0)
- Transportation D.O.T., I.A.T.A. & F.A.A.



# Terminal Type

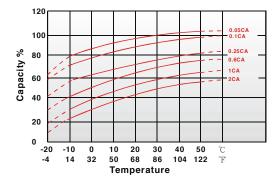


disconnect tabs

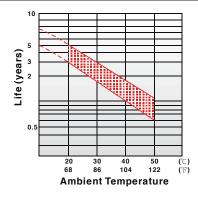
**REV V3.1** 

# PC18-12 12V 18AH

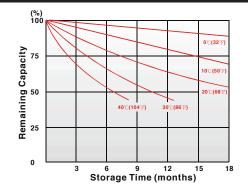
## Effect of Temperature on Capacity 25°C (77°F)



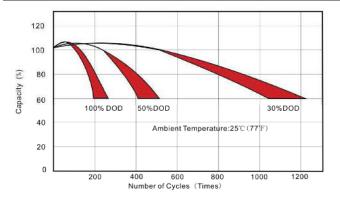
#### Trickle (or Float) Service Life



### Capacity Retention Characteristic



#### Cycle Service Life



#### Regular Charge / Float Charge / Storage

- Charging voltage temperature compensation needs to be applied when temperature is below 0°C and above +45°C.
- Charging in temperatures below 0°C, the charge current should not exceed 0.1C as the core battery temperature can increase rapidly and damage the battery.
- During floating charge or when in storage, the life of the battery is cut in half for every 8°C temperature rise over 25°C.

#### Discharge

- Discharging at elevated temperatures improves performance of the battery yet shortens its life due to accelerated aging.
- Low temperature affects the battery internal resistance and lowers its capacity. The battery provides 100% specified capacity at 25°C. It will deliver 50% of its stated capacity at -20°C with 0.1C discharge current and 20% with 2C discharge current.

Constant Current Discharge (A) at 25°C (77°F)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	6h	10h	20h
1.85V/Cell	59.18	34.94	28.46	17.90	10.45	6.04	4.64	3.808	3.120	2.544	1.668	0.867
1.80V/Cell	60.31	35.60	28.98	18.24	10.65	6.15	4.73	3.880	3.180	2.592	1.700	0.883
1.75V/Cell	61.44	36.27	30.51	18.58	10.85	6.27	4.81	3.953	3.239	2.641	1.732	0.900
1.70V/Cell	66.97	38.45	32.22	19.32	11.04	6.38	4.90	4.023	3.296	2.687	1.762	0.916
1.67V/Cell	73.73	41.71	34.78	20.40	11.15	6.45	4.95	4.066	3.332	2.716	1.781	0.926
1.60V/Cell	79.87	43.89	35.90	21.28	11.27	6.52	5.00	4.110	3.368	2.745	1.800	0.936

Constant Power Discharge (W) at 25°C (77°F)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	6h	10h	20h
1.85V/Cell	115.40	68.12	53.54	34.90	20.37	11.77	9.04	7.43	6.08	4.96	3.25	1.69
1.80V/Cell	117.61	69.43	54.57	35.57	20.76	12.00	9.21	7.57	6.20	5.05	3.31	1.72
1.75V/Cell	119.81	70.73	55.59	36.24	21.15	12.22	9.39	7.71	6.32	5.15	3.38	1.76
1.70V/Cell	130.59	74.97	58.92	37.68	21.52	12.44	9.55	7.84	6.43	5.24	3.44	1.79
1.67V/Cell	143.77	81.34	63.93	39.79	21.75	12.57	9.66	7.93	6.50	5.30	3.47	1.81
1.60V/Cell	155.76	85.58	67.26	41.49	21.99	12.71	9.76	8.01	6.57	5.35	3.51	1.82

**REV V3.1**