

## PCA24-12 BATTERY

### AGM DEEP CYCLE



### SPECIFICATION

Nominal Voltage	12V	
Nominal Capacity(10HR)	24.0AH	
Dimension	Length	166±2mm (6.54 inches)
	Width	175±2mm (6.89 inches)
	Container Height	125±2mm (4.92 inches)
	Total Height (with Terminal)	125±2mm (4.92 inches)
Approx Weight	Approx 8.57 Kg (18.9lbs)	
Terminal	T12	
Container Material	ABS	
Rated Capacity	25.8 AH/1.29A	(20hr, 1.80V/cell, 25 °C/77 °F)
	24.0 AH/2.40A	(10hr, 1.80V/cell, 25 °C/77 °F)
	21.1 AH/4.21A	(5hr, 1.75V/cell, 25 °C/77 °F)
	19.1 AH/6.36A	(3hr, 1.75V/cell, 25 °C/77 °F)
	15.5 AH/15.5A	(1hr, 1.60V/cell, 25 °C/77 °F)
Max. Discharge Current	360A (5s)	
Internal Resistance	Approx 13.0m Ohm	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	0 ~ 40°C (32 ~ 104°F)
	Storage	-15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)	
Cycle Use	Initial charging current less than 7.2A. Voltage 14.4V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial charging current Voltage 13.5V~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Prime PCA series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

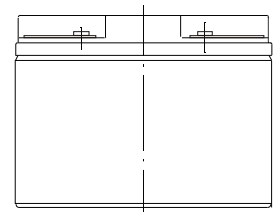
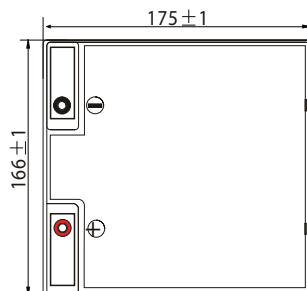
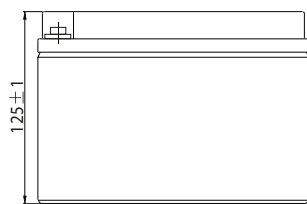
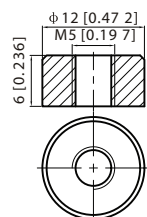
### Applications

- Electric tools
- Vehicle in place of walking
- Lawn mowers
- Golf trolleys and golf cart
- Portable apparatus, lights and instruments;
- Electric toys
- Illumination light
- Fire alarms
- Portable power
- Wheelchairs
- Medical equipments.

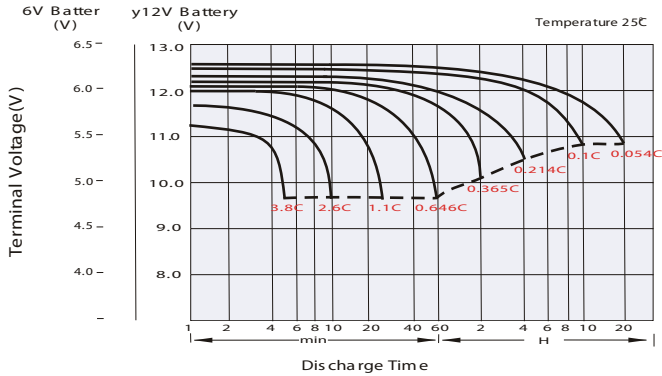
### DIMENSIONS

#### T12 Terminal

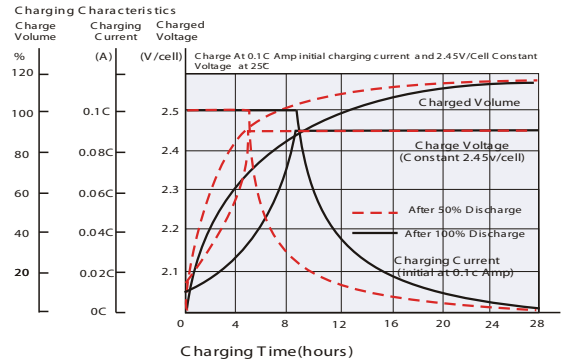
Unit: mm [inches]



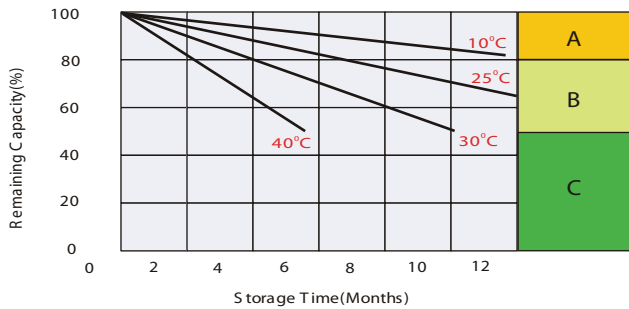
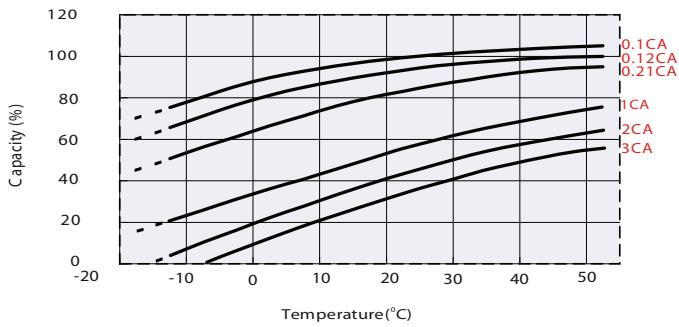
## Discharge Characteristics



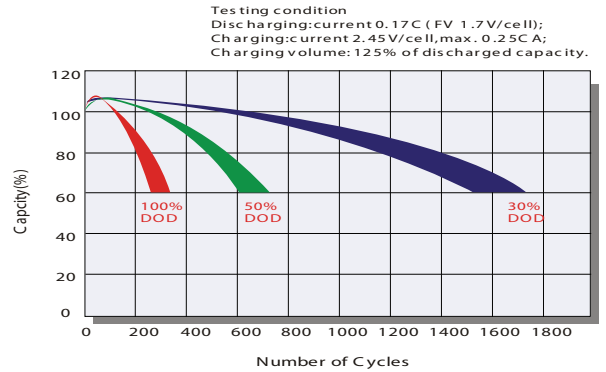
## Charging Characteristics (cycle use)



## Temperature Effects in Relation to Battery Capacity



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics

- A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as be low:
  1. Charged for above 3 days at limited current 0.25C A and constant voltage 2.25V/cell.
  2. Charged for above 20 hours at limited current 0.25C A and constant voltage 2.45V/cell.
  3. Charged for 8~10 hours at limited current 0.05C A.
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.

### Constant Current Discharge (Amperes) at 25 °C (77 °F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	35.1	29.6	25.8	18.6	14.8	12.0	7.44	5.80	4.70	3.82	3.33	2.72	2.27	1.27
1.80V/cell	44.9	35.7	30.5	21.9	17.2	13.4	8.12	6.24	5.02	4.10	3.57	2.88	2.40	1.29
1.75V/cell	49.3	39.0	32.9	22.8	17.8	14.0	8.43	6.36	5.13	4.21	3.67	2.93	2.42	1.30
1.70V/cell	53.8	41.7	34.5	23.7	18.5	14.5	8.76	6.54	5.27	4.32	3.75	2.98	2.45	1.32
1.65V/cell	58.0	44.3	36.7	25.0	19.0	15.0	9.00	6.82	5.45	4.44	3.83	3.02	2.50	1.34
1.60V/cell	63.0	47.4	39.1	26.4	19.8	15.5	9.31	7.02	5.62	4.58	3.91	3.05	2.52	1.35

### Constant Power Discharge (Watts/cell) at 25 °C (77 °F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	65.6	55.7	49.2	35.7	28.6	23.3	14.5	11.3	9.21	7.50	6.58	5.38	4.49	2.55
1.80V/cell	82.7	66.3	57.3	41.6	33.0	25.9	15.7	12.1	9.78	8.03	7.03	5.70	4.75	2.57
1.75V/cell	89.7	71.8	61.1	43.0	34.0	27.0	16.3	12.3	10.0	8.23	7.22	5.79	4.79	2.59
1.70V/cell	96.4	76.1	63.9	44.6	35.3	27.8	16.9	12.6	10.2	8.41	7.36	5.87	4.84	2.64
1.65V/cell	103.3	80.4	67.6	46.8	36.0	28.6	17.3	13.2	10.6	8.64	7.51	5.96	4.93	2.67
1.60V/cell	110.2	84.9	71.2	49.0	37.2	29.4	17.8	13.5	10.8	8.88	7.65	6.01	4.98	2.68



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Specifications subject to change without notice.