

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.

**GENERAL FEATURES**

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.
- Case and cover available in both standard and flame retardant ABS.

**CONSTRUCTION**

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

**TECHNOLOGY PARAMETER**

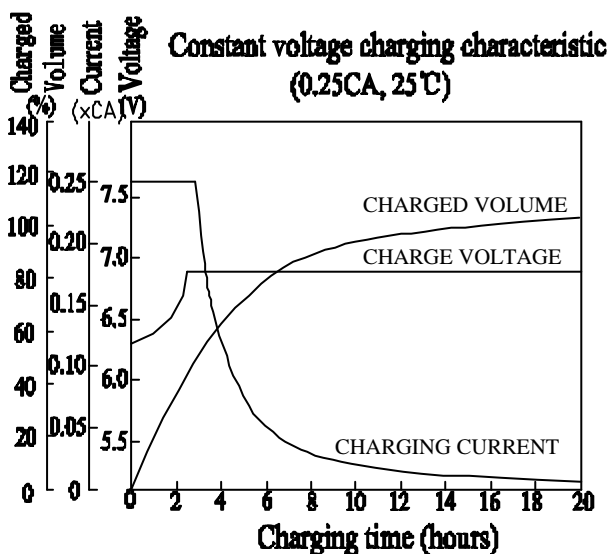
Battery model	CP6180			
Nominal voltage	6V			
Number of cell	3			
Capacity (25 °C)	20hR(0.9A, 5.25V)	10hR(1.67A, 5.25V)	5hR(2.73A, 5.25V)	1hR(10.4A, 4.80V)
	18Ah	16.7Ah	13.65Ah	10.4Ah
Dimensions	Length	Width	Height	Total Height
	91± 1mm	85± 1mm	165± 1mm	170± 1mm
Approx. weight	3.3Kg (7.28 lbs)			
Internal resistance	Full charged at 25 °C : 12mOhms			
Self discharge	3% of capacity declined per month at 20 °C (average)			
Operating temperature range	Discharge	Charge		Storage
	-20 ~ 60	-10 ~ 60		-20 ~ 60
Max. discharge current (25 °C)	270A (5s)			
Short circuit current	900A			

Constant current discharge ratings-amperes at 25°C(77F)

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	51.3	34.2	29.7	17.8	10.4	4.28	2.84	1.76	0.91
1.65V	44.9	32.8	28.6	17.1	10.2	4.16	2.80	1.73	0.91
1.70V	39.8	31.1	27.2	16.2	10.0	4.07	2.77	1.70	0.90
1.75V	36.2	29.4	25.1	15.5	9.89	4.02	2.73	1.67	0.90
1.80V	33.2	27.9	23.2	14.9	9.72	3.95	2.70	1.64	0.90

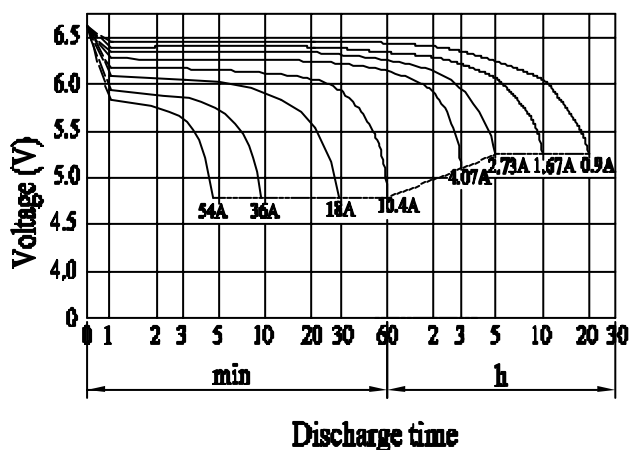
Constant power discharge ratings-watts per cell at 25°C(77F)

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	100	66.7	64.9	34.2	23.9	19.8	11.8	8.34	5.60
1.65V	90.8	60.7	54.1	32.5	22.7	19.5	11.5	8.23	5.47
1.70V	80.2	56.2	53.3	31.0	22.2	19.3	11.3	8.09	5.43
1.75V	71.7	55.7	49.8	29.9	21.9	19.1	11.2	7.98	5.40
1.80V	66.1	54.4	44.2	28.8	21.7	18.9	11.0	7.84	5.36

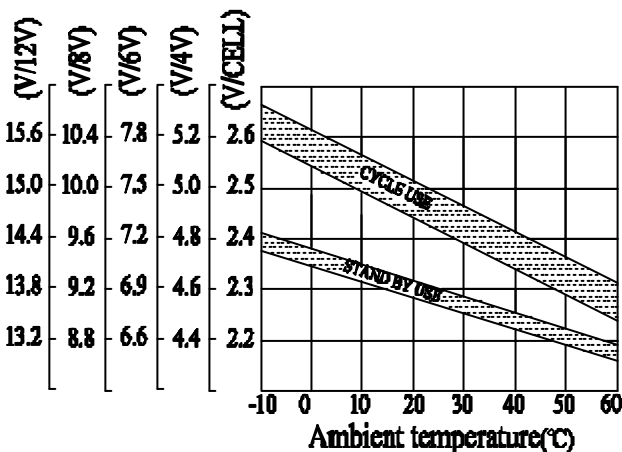


**CHARGING METHODS:** Constant voltage charging at 25°C  
 Standby use: No charging current limit is required  
 Charging voltage: 6.8–6.9Volts  
 Cyclic use: Maximum charging current: 40% of rated capacity  
 Charging voltage: 7.25–7.45Volts  
 Temperature compensation :  
 stand by -10mV/°C; cyclic use -15mV/°C.

Discharge characteristic (25°C)



Relationship between charging voltage and temperature





**Battery and terminal dimensions**

