



PILOT ENERGY
百樂千雅能源股份有限公司

閥調式碳鉛蓄電池(VRLA)

Valve regulated carbon lead battery(VRLA)

PL50-12-CBB (12V50AH)



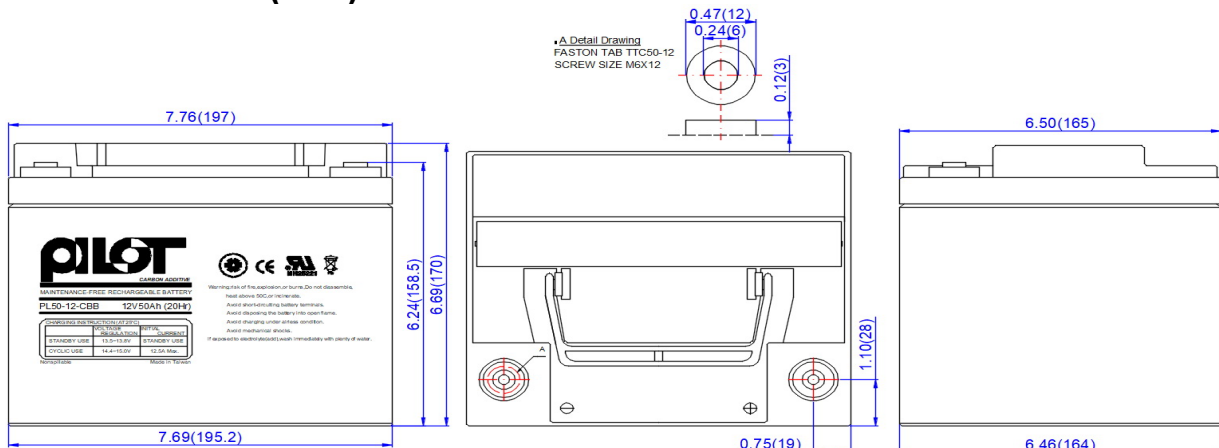
規格Specification

額定電壓 Rated Voltage	12V	
額定容量 Rated Capacity	50AH/20Hr/10.5V	端子 Terminal: 螺栓(M6 Bolt)
尺寸 Dimension	長度 Length	197±1mm(7.76in)
	寬度 Width	165±1mm(6.50in)
	高度 Height	170±1mm(6.69in)
	總高度 Total Height	170±1mm(6.69in)
重量 Weight		14.1kg(31.02Pounds)
電槽材質 Container Material	ABS, UL 94V-0 or UL 94-HB 抗酸、抗油、防震 Resist acid, resist oil, resist vibration	氧氣指數 Index of oxygen L.O.I>28%
電解液型式 Type of electrolyte	AGM 不外漏 Non-spillable	

特性 Properties

容量 Capacity 25°C(77°F)	20 小時率 20HR of 2.50A to 1.80V	50.0AH
	5 小時率 5HR of 8.10A to 1.80V	40.5AH
	1 小時率 1HR of 32.50A to 1.80V	32.5AH
	0.5 小時率 0.5HR of 52.50A to 1.80V	26.3AH
內阻 Internal Resistance (at 1KHz)	完全充電 Full Charge at 25°C(77°F)	大約 Approx.5.5mΩ
容量受溫度影響 The capacity will be effected by temperature	40°C(104°F)	105%(20HR to 52.5AH)
	25°C(77°F)	100%(20HR to 50.0AH)
	0°C(32°F)	85%(20HR to 42.5AH)
	-20°C(-4°F)	60%(20HR to 30.0AH)
最大放電電流 5 秒 Maximum Discharge Current at 5 Sec		500.0A(10CA)
浮充 Float Charging	電壓 Voltage	13.65±0.15V 25°C(77°F)
	電流 Current	15.00A(0.3CA)
循環充電 Cyclic Charging	電壓 Voltage	14.70±0.30V 25°C(77°F)
	電流 Current	12.50A(0.25CA)
操作溫度 Operation Temperature Range	充電 Charge/放置 Storage:-15~50°C(5~122°F), 放電 Discharge:-20~50°C(-4~122°F)	
期待壽命 Expected Life	25°C(77°F) 5~7 years	
性能特點 Performance characteristics	擁有超級電容瞬間大容量充電的優點，也發揮了鉛酸電池的比能量優勢，且非常好的充電性能，優異的低溫啟動能力，更長的循環壽命。 Has the advantages of instantaneous supercapacitor charging capacity, but also play a lead-acid batteries than the energy advantages, and very good charging performance, excellent low temperature start-up ability, longer cycle life.	

尺寸 Dimension: inch (mm)



Performance specification Amperes and watts per battery at 25°C (77°F)

F.V.	Time Item	Minutes										Hours							
		1	5	10	15	20	25	30	35	40	45	1	2	3	4	5	8	10	20
1.60 (9.60)	A	238.0	151.0	111.5	90.5	79.5	66.5	59.5	54.0	50.0	45.5	35.0	20.0	14.0	11.0	8.9	5.8	5.1	2.8
	W	2499	1586	1171	996	875	765	684	621	575	523	403	234	164	129	107	70	61	34
1.65 (9.90)	A	209.5	138.5	103.0	85.0	74.0	63.0	56.0	51.0	47.0	43.0	34.0	19.8	13.8	10.8	8.8	5.7	5.0	2.8
	W	2200	1454	1082	935	814	725	644	587	541	495	391	231	162	126	106	68	60	33
1.70 (10.2)	A	190.0	133.0	95.5	80.0	69.5	60.0	54.0	49.0	44.5	42.0	33.0	19.3	13.5	10.4	8.6	5.6	4.7	2.6
	W	1995	1397	1003	880	765	690	621	564	512	483	380	225	158	121	103	67	56	31
1.75 (10.5)	A	166.5	126.0	87.5	74.5	66.0	57.5	52.5	47.0	43.0	40.0	32.5	18.3	12.7	9.9	8.1	5.4	4.5	2.5
	W	1748	1323	919	820	726	661	604	541	495	460	374	214	148	116	97	65	54	30
1.80 (10.8)	A	147.5	114.0	79.5	68.0	60.5	54.5	49.0	45.0	41.0	39.0	31.5	17.5	12.5	9.6	7.9	5.3	4.4	2.5
	W	1549	1197	835	748	666	627	564	518	472	449	362	205	146	113	95	63	53	29
1.83 (10.98)	A	137.5	105.0	63.0	58.5	50.5	46.5	43.5	39.0	35.0	33.5	30.0	17.3	11.8	9.1	7.4	5.1	4.1	2.3
	W	1444	1103	662	644	556	535	500	449	403	385	345	202	138	107	89	62	49	28

用途 Application

- ☆ 電動代步車
Electric scooter
- ☆ 電動機車
Motor vehicles
- ☆ 電動腳踏車
Electric bicycle
- ☆ 各種電動玩具
All kinds of electric toys

密閉結構 Seal construction

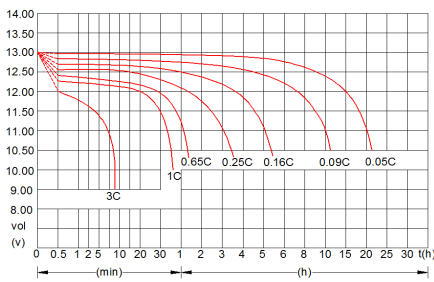
☆ 沒有漏酸的危險，氣體釋放率超底，不需加水，能防止電解液乾枯或產生層化現象(於放電時)再組合率大於 98%
Non-spillable, no leaking danger, the gas consumption rate is low, no need to replenish water, can avoid acid lack or crystallization problem during discharge, the recombination rate is higher than 98%
☆ 極柱採用鉛錫合金或合金銅鍍鉛材質
The polarities adopted Antimony-Lead alloy or copper alloy covered with Lead material.

穩定性 Stabilities

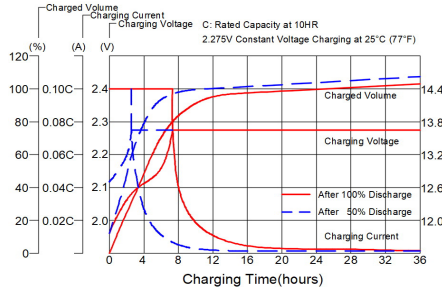
☆ 正負極板是鉛銀合金
Positive and negative plates are lead silver alloy.
☆ 塑殼是防火 ABS 或等級是 UL 94V-0 L.O.I.>28%
The plastic material is fire-resistance ABS or same grade of UL 94V-0 L.O.I.>28%
☆ 組立用螺絲採用 M6 螺絲，扭力從 5N-m 至 8N-m(最大)採用不銹鋼材質，堅固耐用。
Assembling screws using M6 screws, torque from 5N-m to 8N-m (maximum) made of stainless steel, durable.

放電特性(25°C)

Discharge characteristic at different rates(25°C)

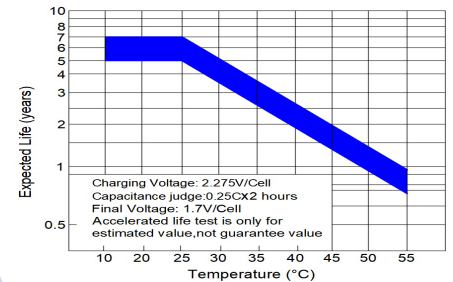


定電壓充電(25°C) Charging Characteristics



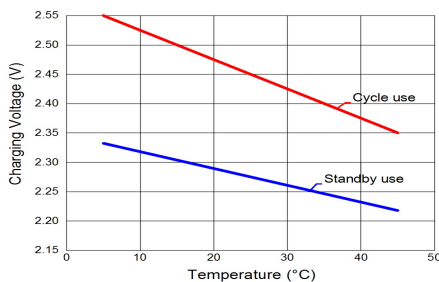
壽命與溫度關係

Accelerated Life Characteristic



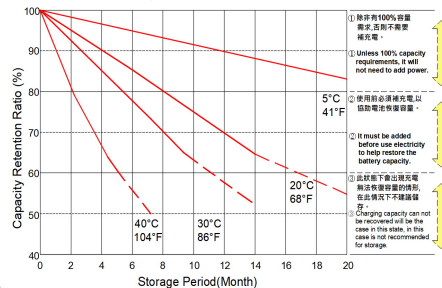
溫度與充電電壓關係

Relationship Between Temperature And Charging Voltage



容量保持特性

Capacity Retention Characteristics



壽命循環關係

Cycle Service Life

