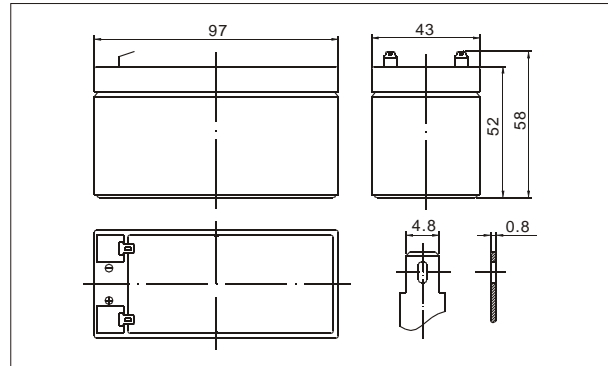




● Outer dimensions (mm)



The CHIWAY sealed lead-acid rechargeable battery (VRLA battery) is leak-proof and maintenance free. The Superiority of VRLA battery is derived from its uniquely efficient oxygen recombination technology. The oxygen evolved from the positive plates diffuses through the micro porous glass fiber mat to the negative plates where it is changed back to water by recombination reaction, eliminating the need for water addition. The result is a maintenance free battery.

● Battery 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

● 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.

● Application

- Electric powered vehicles
- Golf cars and buggies
- PDA equipment as laptop computer,
- Camera, phone sets, medical sets
- Power tools, Lawn mowers, vacuum cleaners
- Electric Powered Toys
- Wheel Chairs

● Specifications

Nominal Voltage		12V
Capacity (20 hr 25°C)		12Ah
Design Life		3-5 Years
Dimensions	Length	151 mm (5.94 inch)
	Width	98 mm (3.86 inch)
	Height	95 mm (3.74 inch)
	Total Height	101 mm (3.98 inch)
Approx. Weight		4.1Kg (9.04 lbs)
Capacity 25°C (77°F)	20 hr rate	12Ah
	10 hr rate	11.16Ah
	3 hr rate	10.20Ah
	1 hr rate	7.2Ah
Internal Resistance (Full charged Battery at 25°C (77°F))		16 mΩ

Capacity affected by Temperature (20hr)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-Discharge at 25°C	3 month	Remaining capacity: 91%
	6 month	Remaining capacity: 82%
	12 month	Remaining capacity: 65%
Normal operating temperature		25°C ± 3°C (77°F ± 5°F)
Operating temperature range		-15°C ~ 50°C (5 ~ 122°F)
Float charging voltage (25°C)		13.6 to 13.8V
Cyclic charging voltage (25°C)		14.5 to 14.9V
Maximum charging current		4.8A
Terminal material		Copper
Maximum Discharge current		180A (5sec)

Charge characteristic Curve for standby use



Discharge characteristic (25°C/77°F)



Relationship between charging voltage and temperature



Self-discharge characteristic



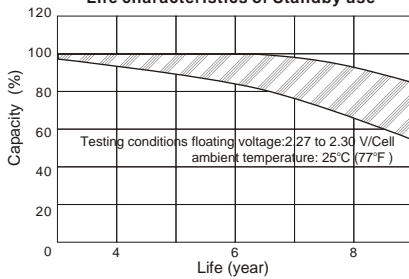
Temperature effects on float life



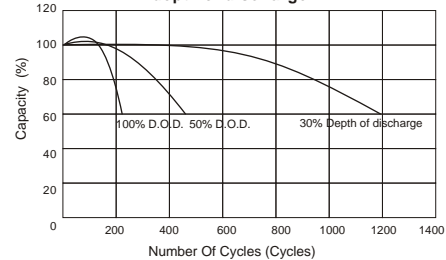
Temperature effects on capacity



Life characteristics of Standby use



Cycle service life in relation to depth of discharge



Constant Current Discharge Characteristics (Amperes, 25°C)

Constant Power Discharge Characteristics (Watts, 25°C)

F.V/Time	Constant Current Discharge Characteristics (Amperes, 25°C)								Constant Power Discharge Characteristics (Watts, 25°C)							
	5min	10min	30min	1h	3h	5h	10h	20h	5min	10min	30min	1h	3h	5h	10h	20h
10.80V	30.1	28.6	13.2	7.50	3.20	2.10	1.20	0.60	381	252	107	65	34	22.6	12.72	7.30
10.50V	33.6	30.0	13.5	7.70	3.20	2.10	1.20	0.60	410	271	114	68	35	23.4	13.00	7.36
10.20V	38.4	30.4	13.9	7.90	3.30	2.20	1.20	0.60	442	290	122	72	36	24.4	13.12	7.40
9.60V	42.1	32.0	14.5	8.20	3.30	2.20	1.20	0.60	504	328	135	79	38	25.2	13.12	7.50

Packing Dimensions	329*324*1125mm	Quantity Per Box	6pcs	Net weight Per Box	24.0kg	Gross weight Per Box	24.8 kg
Splint	Europe (1200*800mm)	Australia (1150*1100mm)	Standard (1100*950mm)	Nonstandard (1000*970mm)			
20'DRY 8.5'	3.96K		3.78K		3.88K		3.78K



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