

## Leading technology, more electric vehicles in use

# 6-DZFG-23 Premium series 12V 23Ah(2hr) GRAPHENE VRLA BATTERY



Chilwee BG (BLACK GOLD) Series high energy VRLA Battery is specially designed based on Graphene Technology, which has obviously improve the battery's capacity, output power, cycle life and high/low temperature performance. The Chilwee BG (BLACK GOLD) Series provides longer range, larger power and extremely long life for motive power applications, i.e. electric bicycles, electric tricycles, electric motorcycles and other device require DC power source.

For more details please contact info@cwpintl.com;

#### **FEATURES & BENEFITS**

- \* Designed based on Graphene Technology enables the BG (BLACK GOLD) series Battery with the the features of excellent long range, larger power and extremely long life.
- \* Unique structure of battery container and lid to ensure excellent gas recommendation efficiency, less gas released so that water loss rate is reduced.
- \* Sepcial grid alloy material and special lead paste prescription have been utilized to resist corrosion on plates, prolong the life of the battery.
- \* Increased positive active material to improve the battery's initial capacity and service life.
- \* Redesigned battery container and terminal, more attractive appearance and easy for installation.

#### COMPARISON BETWEEN BG SERIES AND STANDARD BATTERY

TESTING ITEM	STANDARD BATTERY	BLACK GOLD SERIES	COMPARISON
INITIAL CAPACITY, FOR THE FIRST 3 CYCLES	20.2AH	23AH	10% IMPROVED
CAPACITY , AFTER 69 CYCLES	21AH	24.5AH	16% IMPROVED
DISCHARGE TIME @ END-VOLTAGE : 12V	65 MINUTES	90 MINUTES	34% IMPROVED
WATER LOSS RATE	0.1 GRAM / CYCLE	0.06 GRAM/ CYCLE	40% DECREASED
DISCHARGE TIME @ -15 ℃	94 MINUTES	112 MINUTES	18% IMPROVED
CYCLE LIFE @ 100% DOD	400 CYCLES	500 CYCLES	25% IMPROVED

SPECIFICATION					
Nominal Voltage (V)		12V			
Open Circuit Voltage (V/Block)		13.1V - 13.45V			
Number of Cells (Per Block)		6 Cells			
Rated Capacity (Ah, 25°C)	2h rate (to 1.75V/Cell)	23Ah			
	3h rate (to 1.75V/Cell)	24Ah			
	5h rate (to 1.80V/Cell)	) 25Ah			
	10h rate (to 1.80V/Cell)	) 26Ah			
	20h rate (to 1.85V/Cell)	30 <b>A</b> h			
Nominal Weight (Kgs)		Approx. 6.6 ±0.2 Kgs			
Dimension (L X W X H, Total Height. mm)		181mmX 77mm X 170mm X 171mm			
Container Material		Enhanced ABS			
Charge Voltage	Float (V/Block)	13.50V - 13.80V			
	Cycle (V/Block)	14.60V - 14.80V			
Maximum Discharge Current (A)		150A (5s)			
Maximum Charge Current (A)		2.9 A			
Working Temperature(°C)		Operation (maximum):	-20°C to 50°C		
		Operation (recommended):	20°C to 30°C		
Storage Temperature(°C)			-20°C to 50°C		

#### **CERTIFIED QUALITY**

All products are tested and certified to multiple standard. Designed in accordance with and published in compliance with applicable BCI, IEC and BS EN standards.

ISO 16949/ ISO 9001/ ISO 14001/ ISO 45001











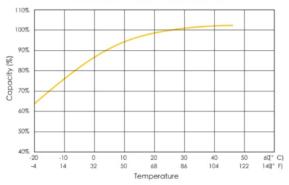
# **6-DZFG-23**

12V23Ah @2hr 12V28Ah @20hr

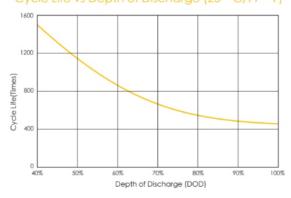
### Discharging Characteristics (25° C/77° F)



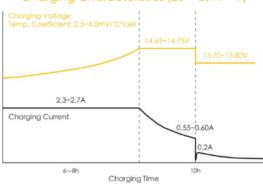
#### Capacity vs Temperature



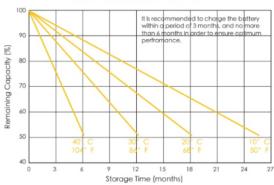
Cycle Life vs Depth of Discharge (25° C/77° F)



## Charging Characteristics (25° C/77° F)



Self-discharge vs Time



Cycle Life vs Remaining Capacity (25° C/77° F)

