

5 YEARS ★
WARRANTY



HYDROCELL
Innovative Energy Solutions

HYDRCELL BATTERY PRODUCT

LIFEPO4 BATTERY SYSTEM

For Drop-in Replacement



Zero Maintenance



Light Weight



Long Life Span



High Performance



No Emission

More Power In Less Space

Safety - Performance - Sustainability - Less Weight

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V1.3.1



CAR CRANKING



GOLF CARTS



FORKLIFT



RV



MARINE



SCISSOR IIFT



**SOLAR POWER
STORAGE**



E-MOBILITY



SCRAPPER



**POWER
STORAGE**



**GOLF
TROLLEY**



**PORTABLE
POWER**



BATTERY APPLICATIONS



Superior Life

Hydrcell battery range offers superior life with an expectancy of 6 to 10 times more than standard lead acid batteries



Lighter Weight

Up to two thirds lighter in weight than standard lead acid batteries



Safer

Safer battery option as the customised built-in hydrcell BMS prevents short circuit, over-voltage and over-discharge, as well as thermal runaway



Flexible

Customisation allows the hydrcell battery to be fitted into areas standard VRLA batteries cannot be utilised due to size restrictions



Maintenance Free Design

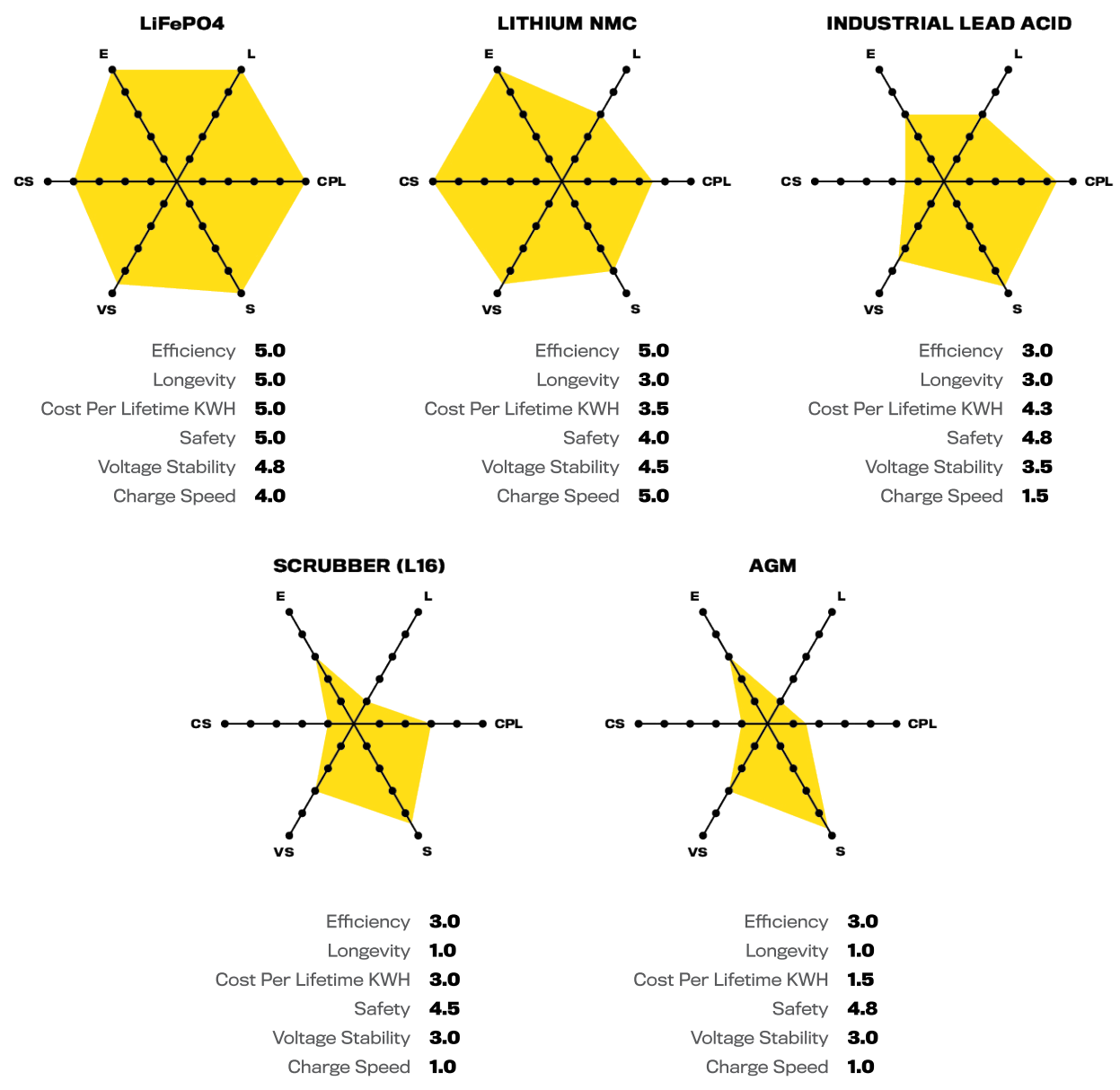
Maintenance free battery range dramatically reduces time spent on site for battery related issues



BATTERY COMPARISONS

This simple, yet thorough comparison of different battery types allows you to see at a glance which battery presents the best value. Comparisons are based on ratings from U.S. Battery, Full River Battery and Systems-Sunlight, respectively.

All calculations are based on cycling to 50% capacity retention for fair comparisons.



HYDROCELL BATTERY SAFETY >

- **1: SAFE CHEMISTRY**
- **2: PRESSURE VENT ON EACH BATTERY**
- **3: BMS MONITORING**
- **4: SAFETY SOLENOID(BREAKER)**
- **5: SOLID STEEL CASE**

SUPERIOR USABLE CAPACITY

While we recommend discharging no further than 20% state of charge, Hydrocell Batteries can be safely discharged to 0% with only a small impact on cycle-life.

FAST CHARGE/DISCHARGE

Hydrocell Batteries can be charged in less than half the time required to charge lead acid batteries. And while rarely applicable for solar applications, a 1C charge and discharge are permitted.

LIFEPO4
BATTERIES ARE
99%
EFFICIENT

Most other types of batteries have 10-30% efficiency losses (discharge power available vs. charged power)

5X
THE LIFE OF
MOST
LEAD-ACID
BATTERIES

Our LiFePO4 battery can be discharged down to 20% and still retain 80% of its original capacity after 2,500 cycles.

BMS
BALANCING
ADDS
UP TO **30%**
MORE LIFE

Our lithiumLiFePO4 Batteries come standard with BMS balancing

STABLE VOLTAGE

The voltage of an Hydrocell Battery is not subject to the fluctuations seen in most other battery types when under heavy load.

FLEXIBLE INSTALLATIONS

Hydrocell Batteries can be installed in an upright position or horizontally in a rack or cabinet. There are terminals on the front and back to simplify the cabling process for either position.

LIGHT WEIGHT

Hydrocell Batteries weigh only 30% of their lead acid counter parts.

MAINTENANCE-FREE

Hydrocell Batteries require no maintenance of any kind, such as equalizing or adding water.

FIELD SERVICEABLE*

You probably won't need this one, but in the event of a battery failure, all of the internal electronic components in a Hydrocell Battery are field replaceable. Additionally, you can stock spare parts as backup for catastrophic events such as an EMP strike.

Customisation ensures the Hydrocell battery range can be retrofitted into a range of space restrictive areas. Thanks to the Hydrocell ranges flexibility .The Hydrocell lithium battery offers exceptional power density and is also available with a heating blanket option if installation is outside the main cabin. With the Bluetooth connection enabled gathering real time data from the battery is incredibly simple and always accurate.

- Globally Used
- High Reliability
- High Efficiency
- Intelligent

On /Off Board Charger

Hydrocell products are lithium-ion battery packs with integrated golf cart battery system. They are designed to replace the lead-acid batteries and are available for drop-in replacement in Club Car, EZ-GO, Yamaha, StarEV, ICON ,Tomberlin ., etc, vehicles easily

The casing of a battery charger shall have the strength and rigidity necessary to resist the abuses to which it may be subjected, without resulting in a risk of fire. The casing of a user-replaceable battery charger shall have the strength and rigidity necessary to resist the abuses to which it may be subjected without resulting in a risk of injury to persons.

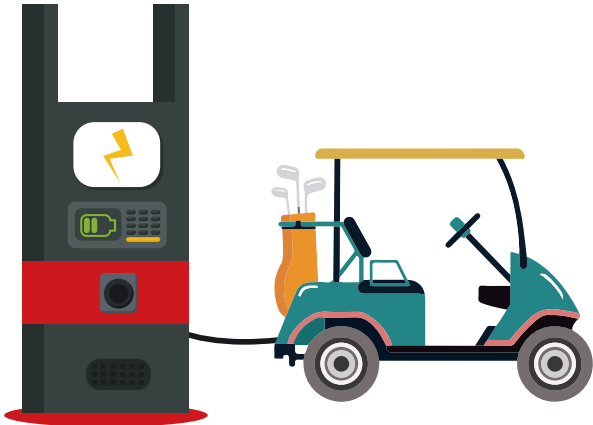
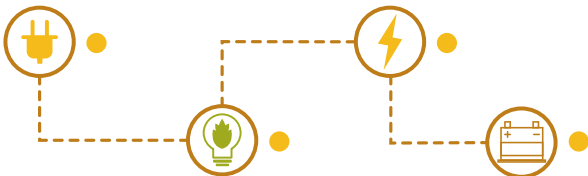


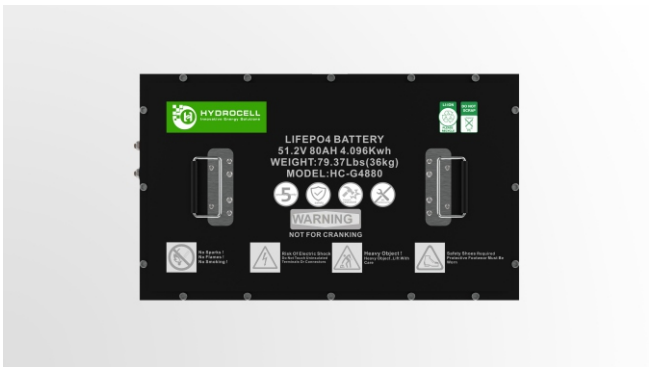
Charger Specifications

Battery pack rated voltage	48V
Maximum charger output	68V
AC input voltage range	85-270VAC; 45-65Hz
AC input current value	11.5A@120VAC; 6.1A@220VAC
Power factor	≥0.99
Charger efficiency	≥95%
Noise	≤45dB
IP Class	Ip67
Weight	9.3lb(4.2kg)
Operating temperature	-86°F to 149°F(-30°C to 65°C)
Storage temperature	-104°F to 203°F(-40°C to 95°C)

MORE RESILIENCE WITH CHARGER

According to different Voltage systems and charging efficiency requirement , Customers can choose charger all the way From 15A to 35A , 50A.....





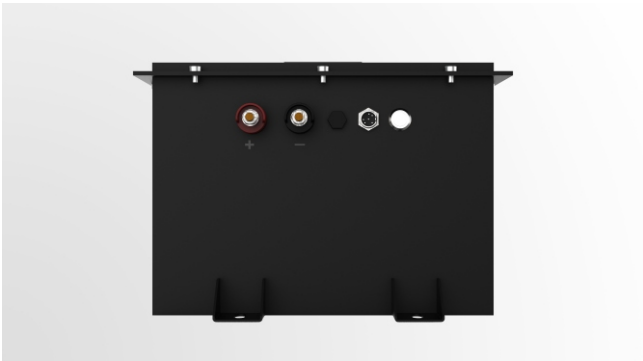
Top View



Rear View



Side View



Front View



GOLF CART 48V 80AH

BATTERY SPECIFICATION

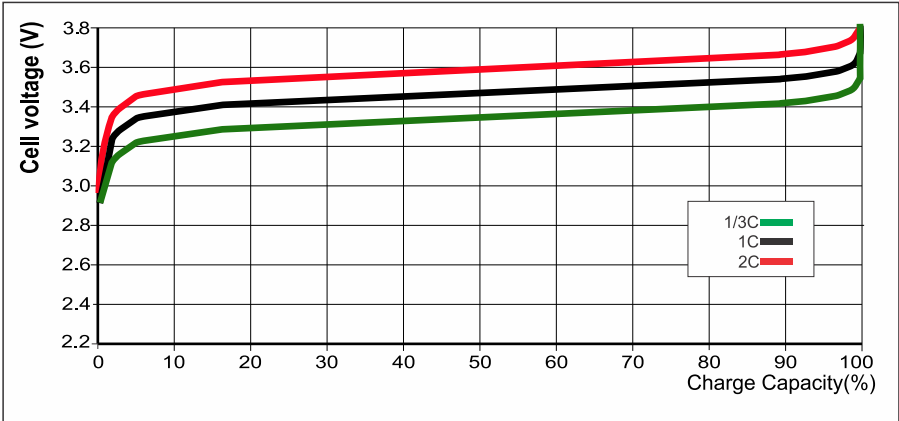
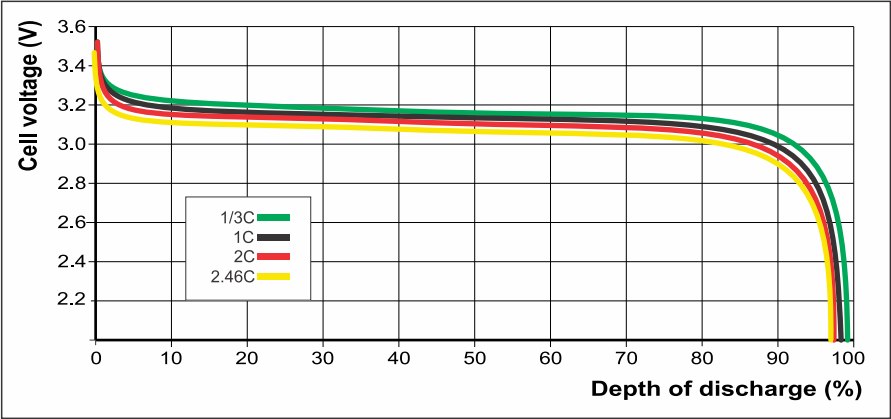
Model	HC-G4880
Nominal Voltage	51.2V
Nominal Capacity	80AH
Stored Energy	4.096KWH
Life Cycles	>3500 Times
Self Discharge	Max 3.2% Per Month
Continuous Charge Current	≤80A
Continuous Discharge Current	80A
Maximum Discharge Current	3C (30S)
Quick Charge Time	1-2h
Standard Charge Time	3-4h

ENVIRONMENTAL

Charge Temperature Range	32°F-113 °F (0°C -45°C)
Discharge Temperature Range	-4°F-140°F (-20°C-60°C)
Storage Temperature Range	-14°F-95°F (-10°C -35°C)

MECHANICAL

Cell Circuit Pattern	16 cells in series
Cell Assembly	3.2V 80AH
Battery Body Material	Metal+ Powder Coating
Weight	79.37 LBS(36KG)
Dimension(L*W*H)	533*363*220 mm
IP Class	IP 65



B1 48V 105AH(MODEL:HC-G105A) BATTERY OVERVIEW



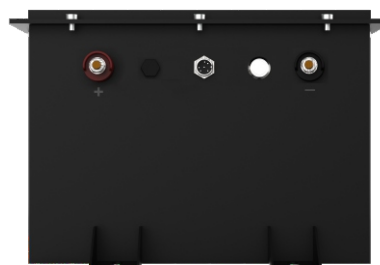
Top View



Rear View



Side View



Front View



GOLF CART 48V 105AH
HC-G48105A

B2 48V 105AH (MODEL:HC-G105A) SPECIFICATIONS

BATTERY SPECIFICATION

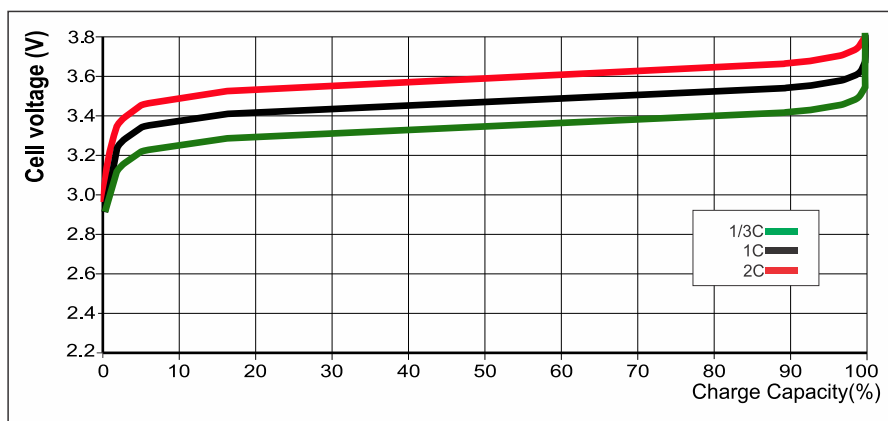
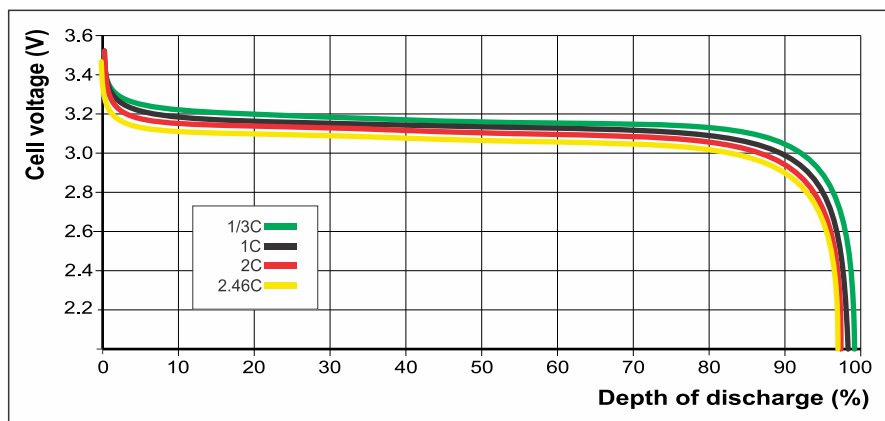
Model	HC-G48105A
Nominal Voltage	48V
Nominal Capacity	105AH
Stored Energy	5.38KWH
Life Cycles	>3500 Times
Self Discharge	Max 3.2% Per Month
Continuous Charge Current	≤70A
Continuous Discharge Current	100A
Maximum Discharge Current	3C (20S)
Quick Charge Time	2-3h
Standard Charge Time	4-5h

ENVIRONMENTAL

Charge Temperature Range	32°F-113 °F (0°C -45°C)
Discharge Temperature Range	-4°F-140°F (-20°C -60°C)
Storage Temperature Range	-14°F-95°F (-10°C -35°C)

MECHANICAL

Cell Circuit Pattern	16 cells in series
Cell Assembly	3.2V 105AH
Battery Body Material	Metal+Powder Coating
Weight	92.59Lbs(42kg)
Dimension(L*W*H)	500*310*200 mm
IP Class	IP 65



48V 105AH (MODEL:HC-105) BATTERY OVERVIEW



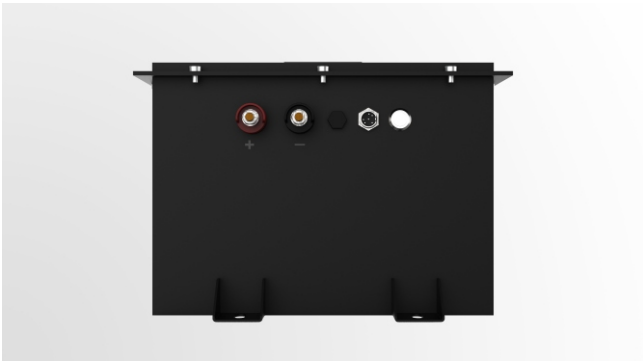
Top View



Rear View



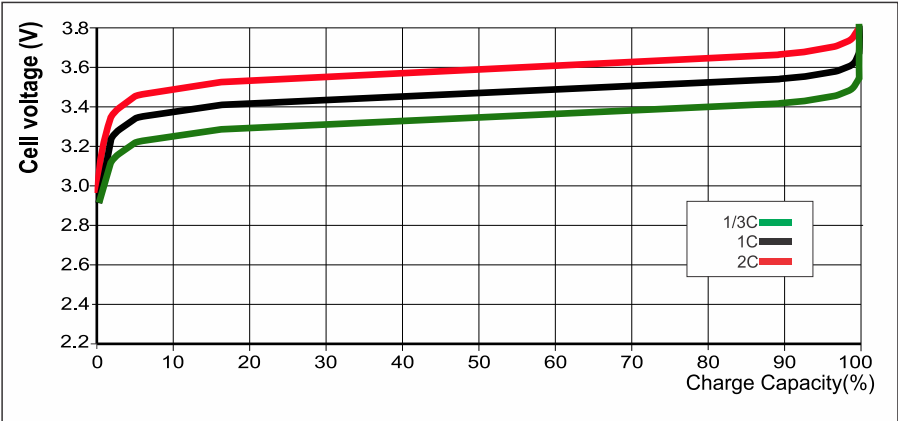
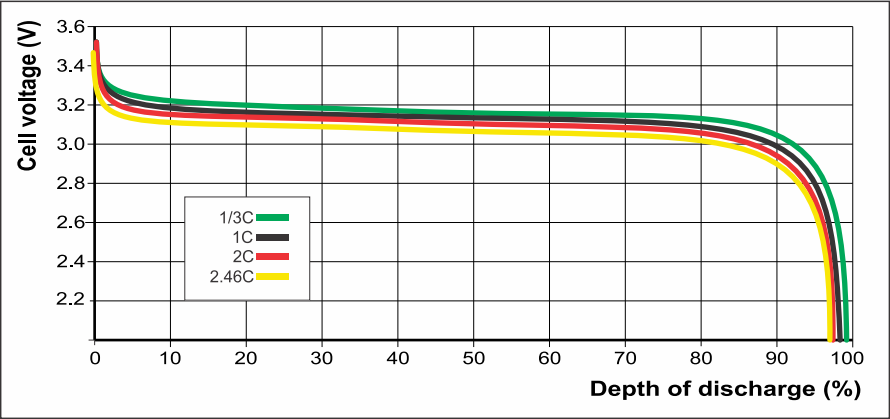
Side View



Front View



GOLF CART 48V 105AH



48V 150AH BATTERY OVERVIEW



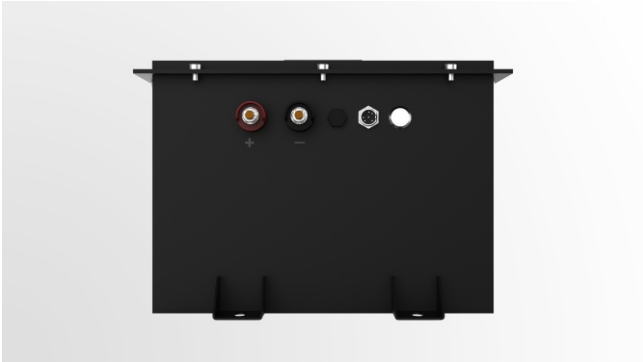
Top View



Rear View



Side View



Front View



GOLF CART 48V 150AH

BATTERY SPECIFICATION

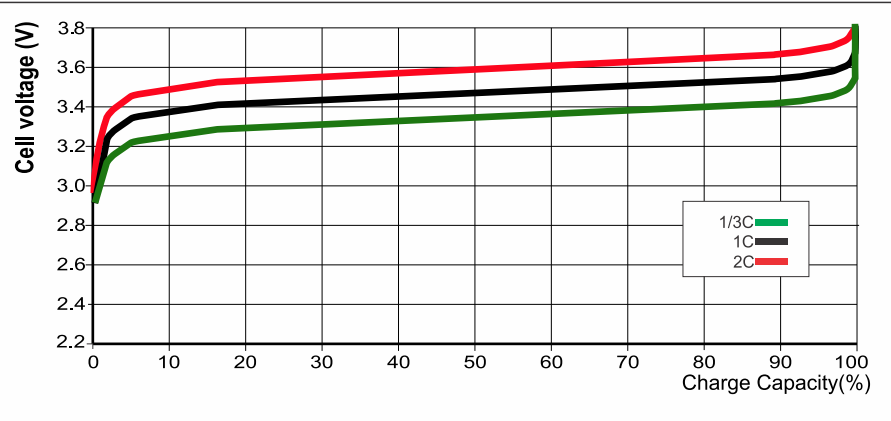
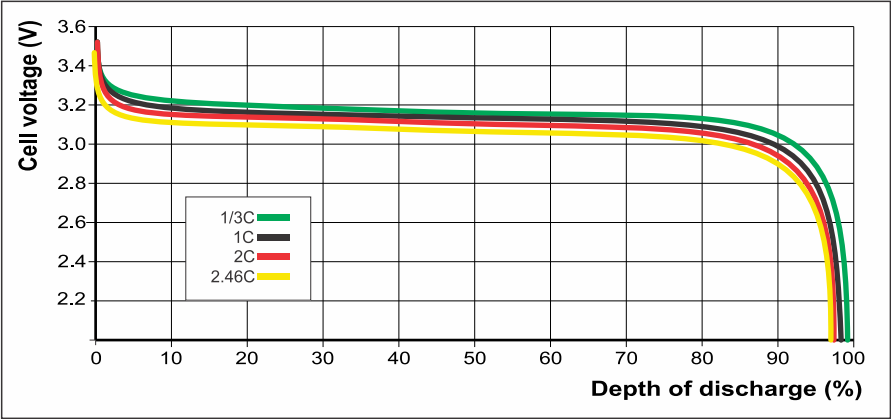
Model	HC-G48150
Nominal Voltage	51.2V
Nominal Capacity	150AH
Stored Energy	7.68KWH
Life Cycles	>3500 Times
Self Discharge	Max 3.2% Per Month
Continuous Charge Current	≤145A
Continuous Discharge Current	150A
Maximum Discharge Current	3C (30S)
Quick Charge Time	3-4h
Standard Charge Time	4-5h

ENVIRONMENTAL

Charge Temperature Range	32°F-113 °F (0°C -45°C)
Discharge Temperature Range	-4°F-140°F (-20°C -60°C)
Storage Temperature Range	-14°F-95°F (-10°C -35°C)

MECHANICAL

Cell Circuit Pattern	16 cells in series
Cell Assembly	3.2V 150AH
Battery Body Material	Metal+ Powder Coating
Weight	137.3 LBS(62.3KG)
Dimension(L*W*H)	728*324*240 mm
IP Class	IP 65

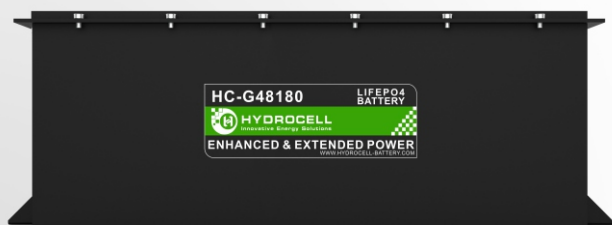




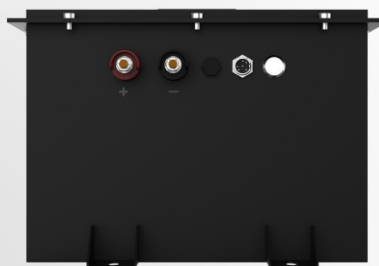
Top View



Rear View



Side View



Front View



GOLF CART 48V 180AH

BATTERY SPECIFICATION

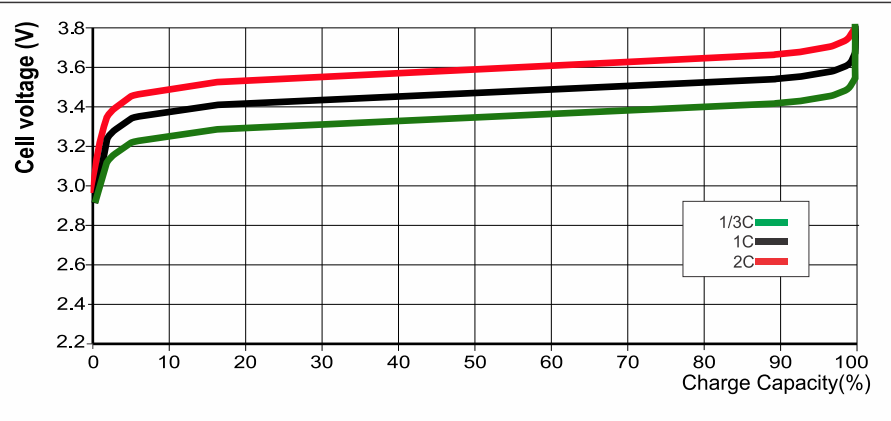
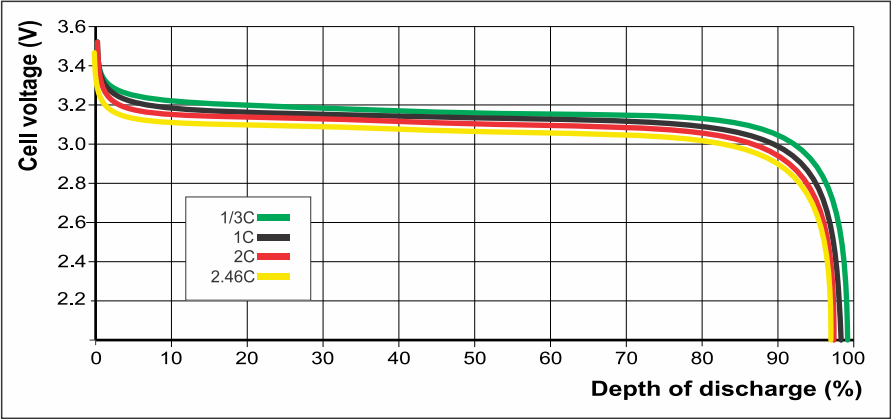
Model	HC-G48180
Nominal Voltage	51.2V
Nominal Capacity	180AH
Stored Energy	9.216KWH
Life Cycles	>3500 Times
Self Discharge	Max 3.2% Per Month
Continuous Charge Current	≤165A
Continuous Discharge Current	180A
Maximum Discharge Current	3C (30S)
Quick Charge Time	3-4h
Standard Charge Time	7-8h

ENVIRONMENTAL

Charge Temperature Range	32°F-113 °F (0°C -45°C)
Discharge Temperature Range	-4°F-140°F (-20°C -60°C)
Storage Temperature Range	-14°F-95°F (-10°C -35°C)

MECHANICAL

Cell Circuit Pattern	16 cells in series
Cell Assembly	3.2V 180AH
Battery Body Material	Metal+Powder Coating
Weight	155.3 LBS(70.5KG)
Dimension(L*W*H)	783*324*240 mm
IP Class	IP 65





HYDROCELL

Innovative Energy Solutions



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