

Hybrid Battery is a revolutionary and unique concept in the field of two-wheeler batteries. Hybrid Battery is a combination of latest Ultra-capacitor technology with VRLA Battery. Both these components being completely maintenance free, the user can have a hassle free ride. Furthermore Ultra-capacitor circuitry is a long life component which could last for more than the life of the vehicle. This feature reduces the future cost of battery to a great extent as the user has to replace only VRLA battery after 2 years which costs several times less than the total cost of the battery. No change in the original vehicle is required to use the Hybrid Battery.



Ultra capacitor + VRLA battery = Hybrid Battery

**Main Features:**

- Ultra-capacitor circuit is capable of giving full crank for starting the vehicle.
- The purpose of VRLA Battery is to provide back-up for Ultra-capacitors.
- Long life Ultra-capacitor circuit.
- Zero Maintenance
- Eco friendly ultra capacitor circuitry
- Distilled Water not required
- Easy installation and testing
- 3 Year warranty on Ultra-capacitor.
- 1 Year warranty on VRLA Battery.

**Comparison between “Hybrid Batteries” and “Conventional Lead-Acid Battery”**

Parameter	Hybrid Batteries	Conventional Lead-Acid Battery
<b>Components</b>	Ultra-capacitors + VRLA Battery	Lead-Acid Battery
<b>Life</b>	<ul style="list-style-type: none"> <li>• Ultra-capacitors: More than 10 yrs</li> <li>• VRLA Battery: 1 to 2 years</li> </ul>	1 to 2 years if maintained properly
<b>Warranty</b>	<ul style="list-style-type: none"> <li>• Ultra Capacitors :- 3Yrs</li> <li>• VRLA Battery :-1 Yr</li> </ul>	1 Yr
<b>Maintenance</b>	<ul style="list-style-type: none"> <li>• Ultra –Capacitor:- Not required</li> <li>• VRLA Battery :- Occasional Charging</li> </ul>	Water top-up, occasional charging, contact cleaning

<b>Initial Charging</b>	Not Required	Required
<b>Eco friendly</b>	70% less lead and acid	Contains lead and acid only

### Applications:

Hybrid 4, Hybrid 5 and Hybrid 9 Batteries can be installed vehicles which uses respectively similar conventional Lead-Acid Batteries.

### Hybrid 5

- Honda Activa
- Kinetic Honda
- TVS Scooty,
- Bajaj Discover 135 DTS-I , XCD DTS-Si, Kristal DTS-i
- **Many more.....**

### Hybrid 9

- Bajaj Pulsar 150, 180, 200, 220,Avenger
- Hero Honda Karizma
- Royal Enfield Bullet 350,Electra,Lightening,Machismo,Thunderbird
- **Many more.....**

### Specifications:

(Ultra-capacitor and VRLA Battery combined)

Parameter	Hybrid 4 and Hybrid 5	Hybrid 9
Nominal Voltage	12 V DC	12V DC
Battery used	12V, 1.3 Ah VRLA(maintenance free)	12V, 3.4Ah VRLA (maintenance free)
Equivalent Capacitance	8.33 Farad	12.5 Farad
Min.Stored Energy	600 joules	1200 joules
Max. with-stand Voltage	15V DC	15V DC
Max.Storage Temperature	40°C	40°C
Max.working Temperature	50°C	50°C
Cycle Life for Ultra-capacitors	5,00,000 cycles	5,00,00 cycles
Life Time for Ultra-capacitor	90,000 hrs	90,000 hrs