

# VION

Life on. Power on.

VION LFP EK 51105  
Lithium-ion  
eRickshaw Battery



36\*  
MONTHS  
WARRANTY

PRODUCT CATALOGUE

VION  
Life on. Power on.

Marketed by **VSL PowerHive Private Limited**  
Registered Office Biowonder, Unit No 1102, 11th Floor, 789 Anandapur Main Road  
Eastern Metropolitan Bypass, EKT, Kolkata 700107  
Manufactured at  
Plot No 81, DLF Industrial Area, Phase 1, Faridabad, Haryana 121003

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For more info,  
scan for our website

\*Terms & Conditions Apply

## MESSAGE FROM OUR CEO



At PowerHive, we build energy storage that works in the real world, not just on spec sheets. India's power needs are changing fast, and reliable storage is now as essential as generation.

That's why we created VION, our lithium battery brand for everyday and commercial use cases, designed around the things customers care about – safety, consistent performance, long life, and dependable service support. Whether it is home backup, solar storage, electric mobility, or small-business power needs, VION is engineered to deliver predictable output over years, not months.

Our commitment is simple

- **Build trustworthy products,**
- **Be clear and honest in how we sell them,**
- **Stand by customers after the sale.**

As we scale, we'll keep investing in quality, testing, and service networks so that PowerHive becomes a name people associate with confidence.

Arun Mittal







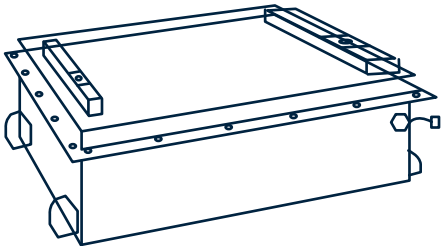
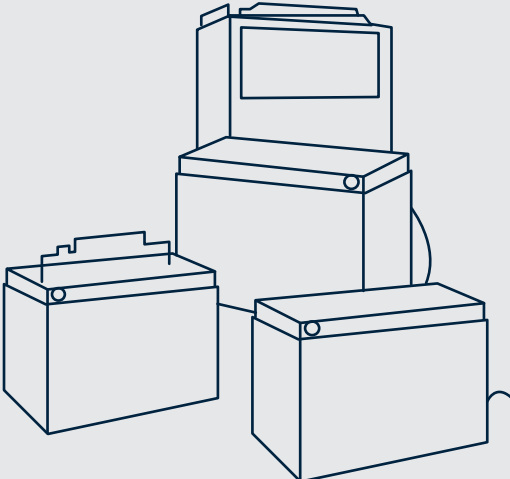
VION is a next-generation lithium battery energy storage brand delivering reliable, high-performance solutions for everyday power needs. Built around the way people actually use energy in India, VION prioritises safety, long service life, and consistent output – even across frequent cycling, variable loads, and demanding operating conditions.

Powered by  **vikramsolar**

VION is the flagship brand of PowerHive, a wholly owned subsidiary of Vikram Solar, established to meet India's rapidly growing demand for advanced energy storage systems and solutions. Backed by a strong manufacturing-led ecosystem and a presence across multiple international markets, this foundation strengthens VION's commitment to dependable products and responsive support throughout the battery life cycle.

Built for real-world performance, we bring future-ready energy storage for homes, businesses, and communities

## TURN THE RIGHT CHOICE – ON

	LITHIUM-ION	LEAD ACID BATTERIES
	Light weight. 1 battery required for eRickshaws. Battery weight is 42 Kgs.	Heavy weight. 4 batteries required for eRickshaws. Total battery weight is 120 Kgs (35 Kgs x 4).
	Better mileage efficiency because of lighter weight of the battery. Faster charging time of ~4.0 – 4.5 hours.	Because of heavy weight of the battery set of 4, mileage efficiency is affected. Higher charging time of ~10 – 12 hours.
	3 Years/36 months Warranty. Does not require de-mineralised water top-up.	12/15 months Warranty on an average. Requires de-mineralised water top-up every 2 – 3 weeks.
	Does not result in dry battery and acid spillage, ensuring the vehicle body and chassis remain safe. Lower self-discharge rate. Lithium-ion batteries have a lower self-discharge rate than lead-acid batteries, meaning they retain their charge for longer periods when not in use.	Result in dry battery and acid spillage, damaging the vehicle body and chassis. Faster self-discharge.
		

# Why Choose VION

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## Lithium-ion eRickshaw Batteries

### BATTERY & CHARGER SPECIFICATIONS

Product Number	<b>VION LFP EK 51105</b>
Voltage (V)	<b>51.2V</b>
Warranty	<b>36 Months</b>
Cell Type	<b>Prismatic</b>
Dimensions (Battery) (L x B x H)	<b>580 x 380 x 165 mm</b>
Gross Loading Weight (KG)	<b>600 Kg</b>
Battery Colour	<b>Black</b>
Enclosure	<b>Sheet Metal, IP67</b>
Battery Management System	<b>BMS</b>
Certifications	<b>AIS 156 compliant</b>

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### MANUFACTURING

End-to-end capability covering modules and battery packs.

### ASSEMBLY

Fully automated production process.

### SAFETY DESIGN

Inter-cell protection, bottom insulation sheets, over-charge, over-discharge, over-current protection, thermal runaway detection and pressure-release vents to prevent thermal propagation and fire risks.

### PERFORMANCE & SAFETY TESTING

In-house automated tests conducted to ensure consistent safety and performance.

### MODULE DESIGN

Laser-welded modules with integrated temperature sensors.

### MECHANICAL PROTECTION

Enhanced shock and vibration absorption, including cell swelling management.

### THERMAL & STRUCTURAL BENEFITS

Improved thermal insulation, reduced weight, and higher overall safety.

### PACK INTEGRITY

Module strapping used to maintain alignment, compactness, and prevent bulging.

### BATTERY LONGEVITY

BMS sleep mode reduces power consumption during inactivity and protects against over-discharge.

### INGRESS PROTECTION

Resistant to dust and water ingress.

### MONITORING

Smart SOC meter for accurate state-of-charge reporting.

# Why Choose VION

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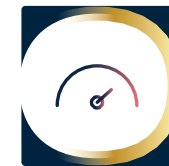
## eRickshaw Chargers



**LONGER LIFE**



**THERMAL PROTECTION**



**HIGH MILEAGE**



**WATER-SPLASH PROOF**



**SHORT CIRCUIT PROTECTION**

## FAQs

### 1 What is IP67?

IP67 is an international ingress protection rating that defines a device's ability to resist dust and water. A rating of "6" indicates total protection from dust, while "7" means the device can tolerate temporary water immersion up to 1 metre (3.3 feet) for 30 minutes.

### 2 What is IP21?

IP21 is an Ingress Protection classification for electronic equipment. The first digit, "2," indicates protection against solid objects larger than 12.5 mm. The second digit, "1," refers to protection from vertically dripping water, including light splashes or condensation.

### 3 What is BMS?

A Battery Management System (BMS) is an electronic control system used to monitor and regulate rechargeable batteries. It helps maintain battery safety, efficiency, and lifespan by tracking key parameters and managing charging and discharging operations.

### 4 What is LFP?

LFP stands for Lithium Iron Phosphate, a lithium-ion battery chemistry that uses  $\text{LiFePO}_4$  as the cathode material. This chemistry is widely used due to its thermal stability, safety, and long service life.

### 5 What is a Prismatic Cell?

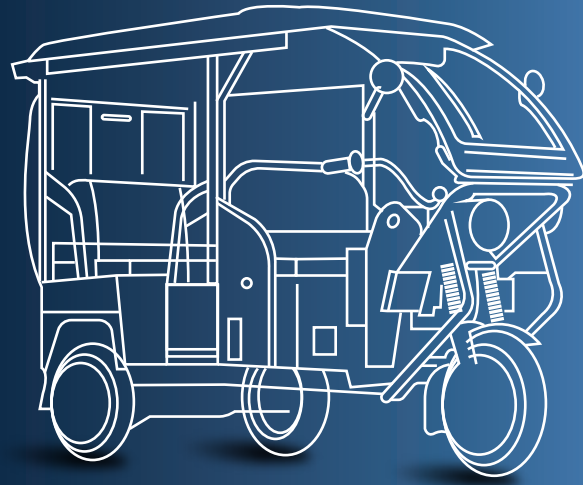
A prismatic cell is a flat, rectangular lithium-ion battery cell designed for compact and efficient pack assembly. Compared to cylindrical cells, prismatic cells are better suited for electric vehicles and energy storage systems, offering balanced energy density and thermal performance.

### 6 What is AIS 156?

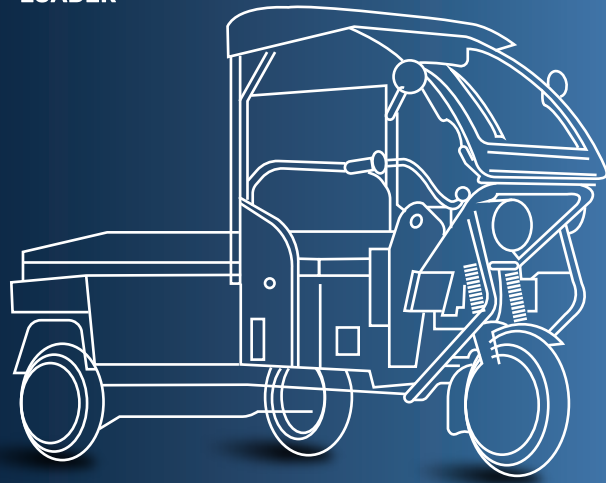
AIS 156 is an Indian safety regulation for electric vehicle batteries, primarily applicable to L-category vehicles such as two-wheelers and three-wheelers. It outlines safety requirements for the Rechargeable Electrical Energy Storage System (REESS) and Electric Powertrain and is aligned with global standards like UN R136.

## APPLICATION

### eRICKSHAW



### LOADER



## FEATURE HIGHLIGHTS

### Fast Charging for More Trips

Less charging downtime, more earning hours. The 51.2V 105Ah pack reaches full charge in around 4.5 hours, helping maximise daily vehicle uptime.

### Intelligent Safety with AIS-156 Ready BMS

A Smart Battery Management System (BMS) tracks voltage, current, and temperature in real time, with safeguards against overcharge, deep discharge, and short-circuit conditions, aligned with AIS-156 safety expectations.

### Power & Performance

Built on advanced LiFePO<sub>4</sub> chemistry to deliver steady torque and consistent output across long routes, heavy payloads, and rough daily usage. Designed for reliable performance in real Indian operating conditions.

### All-weather Reliability

Engineered to perform across extreme climates with stable output from -10°C to 60°C, so the battery stays dependable across seasons and regions.

### Long Service Life, Minimal Upkeep

3,500+ life cycles at 80% capacity means significantly longer life versus traditional batteries, reducing replacement frequency and overall running costs.

## KEY BENEFITS



LONGER LIFE



THERMAL PROTECTION



HIGH MILEAGE



WATER-SPLASH PROOF



ZERO MAINTENANCE



LIFE ON  
POWER ON

