Eurovolta
WORLD OF INNOVATIONS

EUROVOLTA INNOVATIONS PRIVATE LIMITED

LFP BATTERY PACK 51.2V 45Ah

Product Specification Sheet

Company Overview

Eurovolta innovation private LIMITED. (EIPL) is a leading manufacturer of **high-quality and high-performance** Lithium-ion battery packs in India. We produce **advanced Lithium-ion batteries** at our state-of-the-art manufacturing facility. Our core focus is on delivering **customized solutions** designed specifically for **Indian operating conditions**, as well as meeting the unique requirements of OEMs, ODMs, and government projects.

All our Lithium-ion battery series are **independently developed** by EIPL under the Eurovolta brand, ensuring **innovation, reliability, and superior performance**.

Model: EIPL5145EL

Manufacturer: Eurovolta innovation private LIMITED. (EIPL)

Brand: Eurovolta

Application: Electric Vehicle (EV) Systems

Key Product Features

- **High Capacity** — 51.2V, 45Ah optimized for EV applications
- **Safe LFP Chemistry** — High thermal stability and intrinsic safety
- **Long Cycle Life** — 2000 cycles at 80% DoD, retaining ≥80% of initial capacity (EoL), tested at 25°C, 0.5C/0.5C
- **Smart BMS Protection** — Comprehensive protection from overvoltage, undervoltage, overcurrent, short circuit, and temperature extremes
- **Wide Temperature Range** — Reliable operation in harsh environmental conditions
- **Low Self-Discharge**
- **Rugged Enclosure** — Durable Aluminum Casing construction with Aluminum Top Cover for durability and heat dissipation
- **Smart Communication** — CAN, Bluetooth (Optional)
- **Software Integration**: Computer Software Support for Flexible Parameter Adjustment of Protection Board

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Mail Us: business@eurovolta.in
Location : Gurgaon

Contact Us: +91 9211336285

Technical Specifications

General Specifications

Parameter	Value
Manufacturer	EIPL-Eurovolta
Model Number	EIPL5145EL
Rated Voltage	51.2 V
Rated Capacity	45 Ah
Rated Energy	2.30 kWh
Chemistry	Lithium IronPhosphate (LFP)

Table 1: General Product Specifications

Electrical Characteristics

Parameter	Value
Nominal Voltage	51.2 V
Charging Cut-Off Voltage	58.4 V ± 0.5 V
Full Charge Voltage	57.6 V
Discharging Cut-Off Voltage	32.0 V ± 0.5 V
Charging Mode	Constant Current / Constant Voltage (CC/CV)
Standard Charging Current	0.5C (22.5 A)
Standard Discharging Current	0.5C (22.5A)
Cycle Life	2000 cycles at 0.5C,25°C, 80% DOD

Table 2: Electrical Performance Parameters

Mechanical Characteristics

Parameter	Value
Case Type	Aluminum Case
Dimensions (L × W × H)	230.5 × 165 × 359 mm (± 1 mm)
Weight	19.5 kg (Approx.)
Charging Connector	SBS75X Connector
Discharging Connector	SBS75X Connector
Protection Rating	Shock and vibration resistant IP67
IP Rating	AIS 156
Regulatory Standard	

Table 3: Mechanical Design Specifications

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Environmental & Operating Conditions

Parameter	Value
Charging Temperature Range	0°C to 55°C
Discharging Temperature Range	0°C to 60°C
Relative Humidity	60% ± 25%
Storage Temperature	0°C to 45°C (recommended)

Table 4: Environmental Operating Parameters

Communication Interface

Interface Type	Protocol
Communication	CAN, Bluetooth (Optional)
BMS Monitoring	Real-time voltage,current, temperature, SOC

Table 5: Communication Specifications

Battery Management System (BMS) Protection Features

The integrated Smart BMS provides comprehensive **multi-layer protection**:

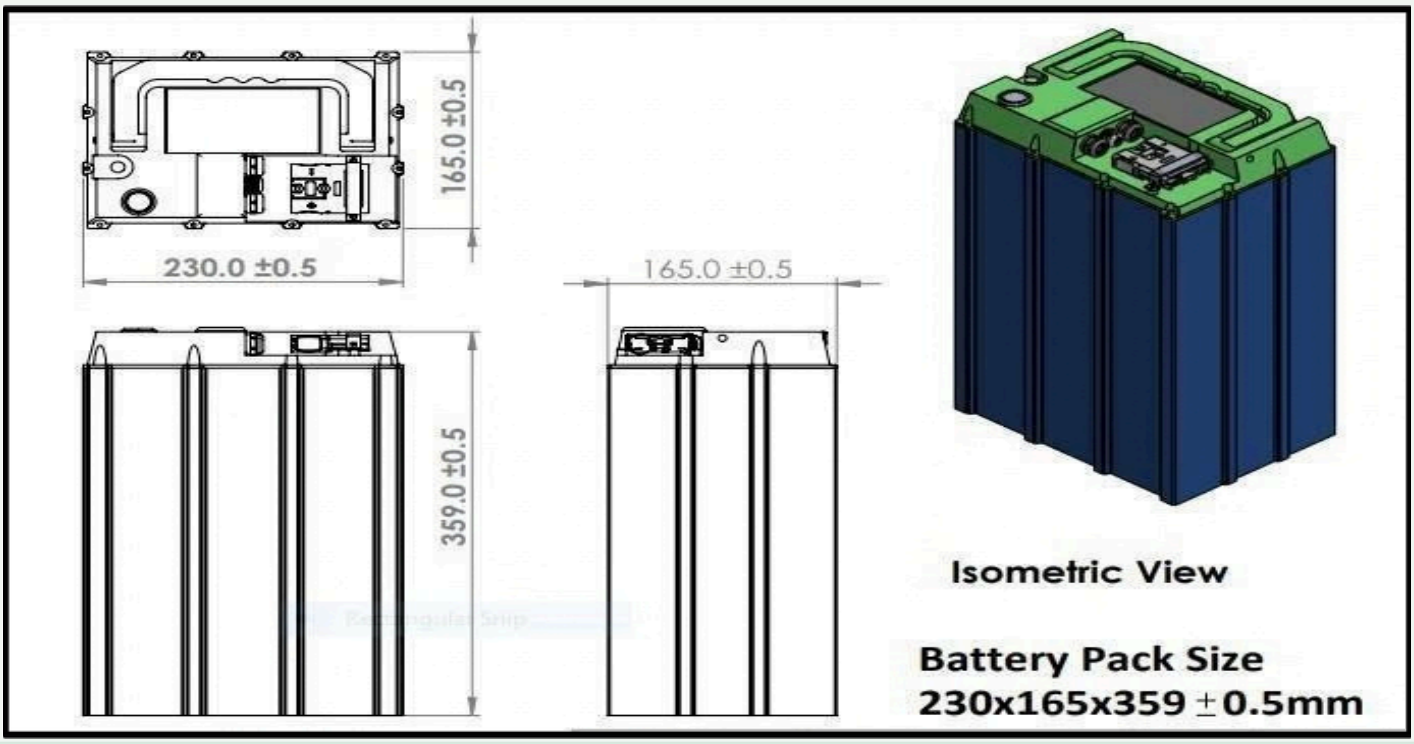
- **Overvoltage Protection (OVP)**
- **Undervoltage Protection (UVP)**
- **Overcurrent Protection (OCP)**
- **Short Circuit Protection (SCP)**
- **Over-Temperature Protection (OTP)**
- **Under-Temperature Protection (UTP)**
- **Cell balancing functionality**
- **State of Charge (SOC)** monitoring
- **State of Health (SOH)** estimation

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Dimensional Drawing

Product Dimensions: 230 X 165 X 359 mm (± 1 mm)





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Safety & Compliance

- **LFP chemistry** provides inherent thermal stability and safety
- Designed for **Indian operating conditions**
- **Rugged construction** for harsh environmental conditions
- **Multiple layers of BMS protection**
- Manufactured at **certified facility in Gurgaon**

Warranty & Support

For warranty information, technical support, and customization requirements, please contact:

Eurovolta innovation Pvt Ltd.
Manufacturing Facility: 2nd Floor, Minarch Tower, Plot no 4, Sector 44, Gurgaon 122001 , Haryana, India

Brand: Eurovolta
Email: business@eurovolta.in

Notes

1. All specifications are measured at 25°C unless otherwise stated
2. Performance characteristics may vary based on operating conditions
3. Customization options available for OEM/ODM requirements

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