



**AADHIRAG
ENERGY**

Backup You Can Trust



ASTRA MAX

5 - 5.1 kWh Battery Pack

LiFePO4 Battery | Lifetime No Maintenance | 7 Year Warranty



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Advanced Power Storage for Homes, Businesses & Solar Systems Power That Grows with You

Meet the next-generation energy storage system from **Aadhirag Energy** — engineered for flexibility, scalability, and reliability.

The **5.1 kWh LiFePO₄ Battery Pack** is purpose-built for modern hybrid inverter systems like **Studer, Deye, Growatt, Phocos, SMA** and more, delivering **seamless solar integration** and **long-life performance** in both **wall-mounted** and **rack-mounted** configurations.

Key Highlights

- **Universal Hybrid Compatibility**

Fully compatible with major inverter brands including Studer, Deye, Growatt, Phocos, and other RS-485 / CAN-enabled hybrid systems.

- **Scalable Energy –**

Connect up to 16 batteries in parallel for expandable storage — perfect for growing home or C&I applications.

- **Flexible Mounting Options**

Available in wall-mount and stackable rack-mount designs for compact installation in homes, offices, and solar power rooms.

- **Intelligent Battery Management System (BMS)**

Advanced multi-level protection for voltage, current, temperature, and communication, ensuring maximum performance and safety.

- **High Energy Density, Low Footprint**

Space-saving, lightweight enclosure designed for modern interiors and tight utility rooms.

- **Fast Charge / Discharge Capability**

Supports high current operation for heavy loads and quick charging from grid or solar input.

- **Silent & Maintenance-Free**

No noise, no fumes, and no maintenance — reliable backup every day, year after year.

Technical Specifications

| <u>Parameter</u> | <u>Specification</u> |
|-----------------------------------|--|
| Model | AE-LFP 5.1 kWh |
| Nominal Voltage | 51.2 V |
| Rated Capacity | 100 Ah |
| Usable Energy | 5.12 kWh |
| Battery Chemistry | LiFePO ₄ (Lithium Iron Phosphate) |
| Cycle Life | > 6,000 cycles @ 80 % DoD |
| Operating Voltage Range | 44.8 – 57.6 V |
| Communication Interface | CAN / RS-485 |
| Parallel Scalability | Up to 16 units |
| Charge / Discharge Current | Up to 100 A |
| Charging Time | 2 – 3 hours (Fast Charge Compatible) |
| Operating Temperature | 0 °C – 50 °C |
| Mounting Options | Wall / Rack Mount |
| Weight | ~ 45 – 50 kg |
| Warranty | 5 Years |



Comparison:

Traditional Battery Bank vs Aadhirag 5.1 kWh Lithium Pack

| <u>Feature</u> | <u>Traditional Lead-Acid / Tubular</u> | <u>Aadhirag 5.1 kWh LiFePO₄</u> |
|----------------|--|--|
| Energy Density | Low | 3× Higher |
| Cycle Life | 400 – 600 | > 6,000 |
| Maintenance | Frequent top-up | Zero Maintenance |
| Scalability | Limited | Parallel up to 16 units |
| Efficiency | ~ 75 % | > 95 % |
| Charging Time | 8 – 10 hours | 2 – 3 hours |
| Safety | Acid / Gas / Corrosion | Safe LiFePO ₄ Chemistry |
| Mounting | Floor Only | Wall / Rack Mount |
| Warranty | 1 – 2 years | 5 years |



Ideal For

- Hybrid Solar and On-Grid Backup Systems
- Villas & Apartment Complexes
- Small Commercial Buildings & IT Rooms
- Telecom, Server, & Cold Storage Backups
- Schools, Hospitals, and Institutions

Why Choose Aadhirag Lithium?

- Works with Leading Hybrid Inverters
- Expandable Energy — Up to 81.6 kWh
- Wall & Rack Mount Options
- Long Cycle Life & High Safety
- Maintenance-Free Operation



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Thank You for Choosing Aadhirag Energy

We appreciate your trust in our products. At Aadhirag Energy, we're committed to delivering innovative and dependable power solutions that ensure life never stops. Together, let's build a future powered by reliability and progress.

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