



# Safe Charging Practices for 36V Lithium Battery Packs Without Protection Boards

**\*\*Safe Charging Practices for 36V Lithium Battery Packs Without Protection Boards\*\*** **\*\*Why Charging Without a Protection Board Demands Expertise\*\*** Charging a **\*36V lithium battery pack\*** without a protection board (BMS) is like driving without seatbelts – possible but risky. While some industrial applications or custom projects might require this approach, understanding **\*safe charging methods\*** becomes critical to prevent thermal runaway or capacity degradation. **\*Key Challenges & Target Audience\*** - **\*DIY enthusiasts\*** building custom energy storage systems - **\*Industrial applications\*** requiring high-current discharge capabilities - Budget-conscious projects where BMS costs must be minimized **\*\*Step-by-Step Charging Protocol\*\*** Here’s a battle-tested method used in **\*emergency power systems\*** and low-frequency solar installations: - Use a CC/CV charger with **\*voltage accuracy  $\pm 0.5\%$ \*** - Set max voltage to 41.4V (3.45V/cell for 12S configuration) - Limit current to 0.3C – e.g., 6A for 20Ah battery packs - Monitor cell balance manually every 45 minutes - Terminate at 41.4V with +86 138 1658 3346 Email: [energystorage2000@gmail.com](mailto:energystorage2000@gmail.com)