

# BESS

## FLUX 5000

UTILITY SCALE  
ENERGY STORAGE SYSTEM



## Overview

The Flux 5 MWh ESS is a high-capacity, utility-grade LFP storage solution designed for large-scale grid applications. It delivers 5015 kWh with a 1331V system, operating reliably from  $-20^{\circ}\text{C}$  to  $55^{\circ}\text{C}$ , 5–95% humidity, and up to 4000 m altitude.

Built with IP55 protection, liquid cooling, and optional aerosol/ water fire suppression, it ensures strong safety and stability. Supports seamless integration through Ethernet/RS485 communication in a robust containerized design for easy deployment in utility and renewable energy projects.

## Key applications

- DISCOM Peak Load Shaving
- Solar Power Output Firming
- Industrial Power Outage Backup
- Grid Frequency and Stability Support

## Standard conformity

Fully compliant with all critical safety, environmental, and communication protocol requirements.

## Confidence Built In

Comprehensive maintenance and care services engineered to maximize reliability, safety, and system uptime.



# Flux 5000

## Utility Scale Energy Storage System

Category	Parameter	Value
DC Parameters	Cell Type	LFP-3.2V-314Ah
	Battery Rated Capacity	5015.96 kWh
	Nominal Voltage	1331.20 Vdc (Voltage range: 1164.8~1497.6 Vdc)
	Charging / Discharging C-Rate	≤0.5 CP
	Cooling Method	Intelligent Liquid Cooling
AC Parameters	Rated Power	2500 kW
	Grid Voltage	690 V (-15% ~ 15%)
	Rated Grid Frequency	50 Hz / 60 Hz
	Grid Frequency Range	45–55 Hz / 55–65 Hz
	Total Current Harmonic Distortion	<3% (At rated power)
	Power Factor	>0.99 (At rated power)
	Power Factor Adjustable Range	-1 (leading) ~ 1 (lagging)
System Parameters	Cooling Method	Liquid Cooling + Air Cooling
	Fire Protection System	Aerosol + Water-based Fire Protection (Optional)
	Anti-corrosion Grade	C4
	Protection Level	IP54 (IP55 for battery compartment)
	Operating Temperature Range	-20°C ~ +45°C (Derating when >45°C)
	Storage Temperature	-20°C ~ +35°C (≤6 months) / -20°C ~ +45°C (≤1 month) (SOC @20%~50%)
	Operating Humidity Range	0 ~ 95% RH (No condensation)
	Installation Method	Outdoor Installation
	Working Condition	Max. 2 charges & 2 discharges per day
	System Communication Interface	Ethernet / RS485
	External System Communication Protocol	Modbus TCP / IEC104 / Modbus RTU
	Altitude	Within 4000m (Derating when >2000m)
	Dimensions (W × D × H)	6058 x 2438 x 2896
Weight	42500±5%kg	
Certification	IEC62619, IEC60730, IEC63056, IEC61000, IEC62477, UN38.3, UN3536	