

**FUEL YOUR BUSINESS WITH**

**INTELLIGENT ENERGY**  
**Hybrid eCo Series BESS**  
**10kWh / 200kWh**





## Integrating Solar Intelligently



Integrate Solar Intelligently, embodies the fusion of advanced solar energy with smart technology for sustainable, efficient solutions. It signifies a commitment to eco-friendly, innovative energy management, highlighting Enercube's role in shaping a greener future.

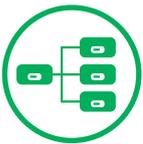
## Hybrid eCo series

Optimizing Energy Storage with  
Intelligent Battery Solutions



### Streamlined Stackable Installation

A sleek, flat design that's floor-mounted, eliminating complex wiring and enabling quick, hassle-free setup.



### Parallel-Ready for System Growth

Engineered for seamless parallel operation, battery units can be combined to achieve a capacity of up to 200kW, meeting the dynamic energy needs of any scale.



### Rapid Charging for Peak Performance

Engineered for high-speed charging capabilities to ensure optimal performance and energy availability.



### Assured Safety and Durability

Combine with high safety standards to provide with 10 year design life for performance



### Integrated Performance Tuning with EnerCube

Deeply synchronized with Enercube inverters for critical data collection, assessment, and verification, ensuring optimal system harmony and efficiency.

**EnerCube BESS shipped with the batteries, a PV inverter making it easy for completing your renewable energy project.**

**Multiple functionality modes allows simple switching between Grid, PV, or Genset enabling better user control and stability.**

**All system systems are offered in 400VAC 3 phase.**



Micro-grid,  
Backup power,  
Renewable integration,  
islanding, Residential,  
Hotel & Resort,  
Commercial &  
industrial



Lithium Iron Phosphate  
(LiFePO4) battery  
systems connected at  
high voltage come with  
>5000 life cycle and up to  
90% DOD (Depth of  
Discharge) @ 0.5C



EnerCube  
battery energy storage  
solution is the ideal fit  
for large residential or  
light commercial  
applications



# Powerful Performance Capabilities

Integrating Power, Precision, and Efficiency

## PV Side

150%-160% DC Oversizing  
Boosts solar energy capture  
Low Voltage Start-up  
Extends operating hours

## Grid Side

Smart power export limitation  
Optimizes grid feed-in for  
enhanced efficiency

## Battery Side

High-current  
Charging/Discharging  
Enables rapid charge  
and discharge

## Load Side

110% Continuous AC  
Overloading  
Delivers sustained, high-  
capacity performance



## Backup Side

20ms transfer time  
Ensures the power continuity power with  
reliability

## IP21 Battery Modules Enclosure

Lithium-Based Battery Systems Technology for Highly Efficient Thermal Management



Built for Extreme Weather  
(0 to 45 °C) using IP21  
container



Rapid Charging and  
Discharging



Inbuilt Fire-Suppressing  
Technology



Quick Installation



Long-life | Low  
Maintenance



Remote Diagnostics and  
Usage Statistics

# Lithium Battery Module Design

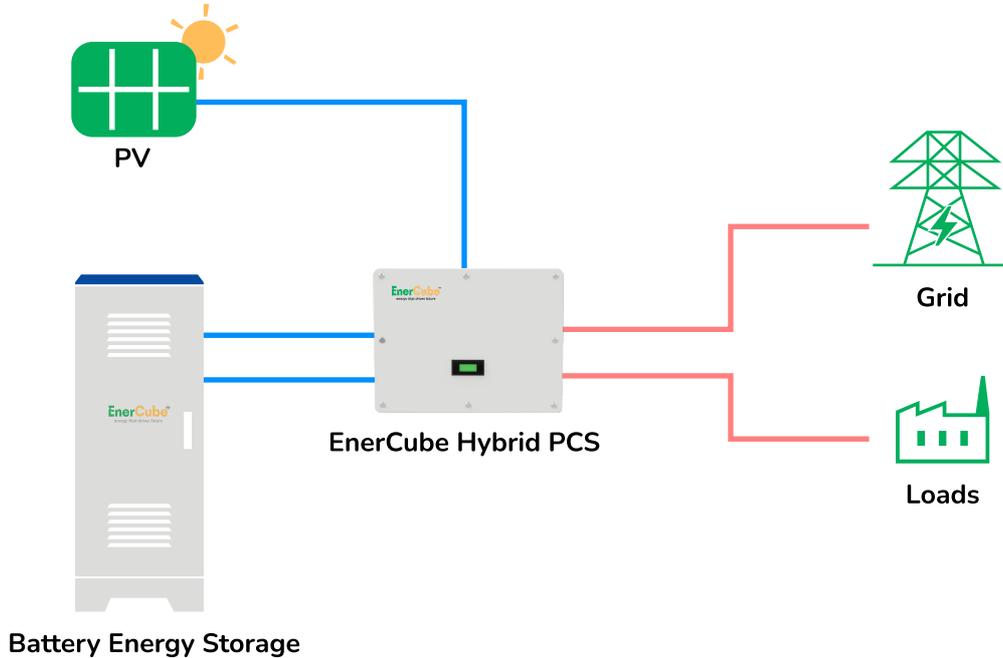
Battery Management System (BMS) with Diagnostics and Usage Statistics CAN | RS485

- **Metal IP21 Enclosure with fully customizable Mountings**
- **High energy density for compact and lightweight design**
- **Longer lifespan with 5,000+ charge–discharge cycles.**
- **Low self-discharge for longer backup availability.**



\*Battery System Assembly image blurred out for Confidentiality

## EnerCube eCo series Usage



### Working Mode

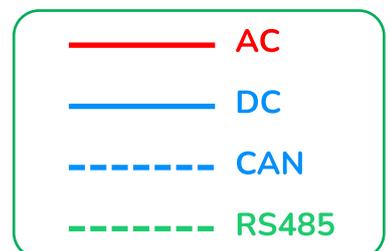
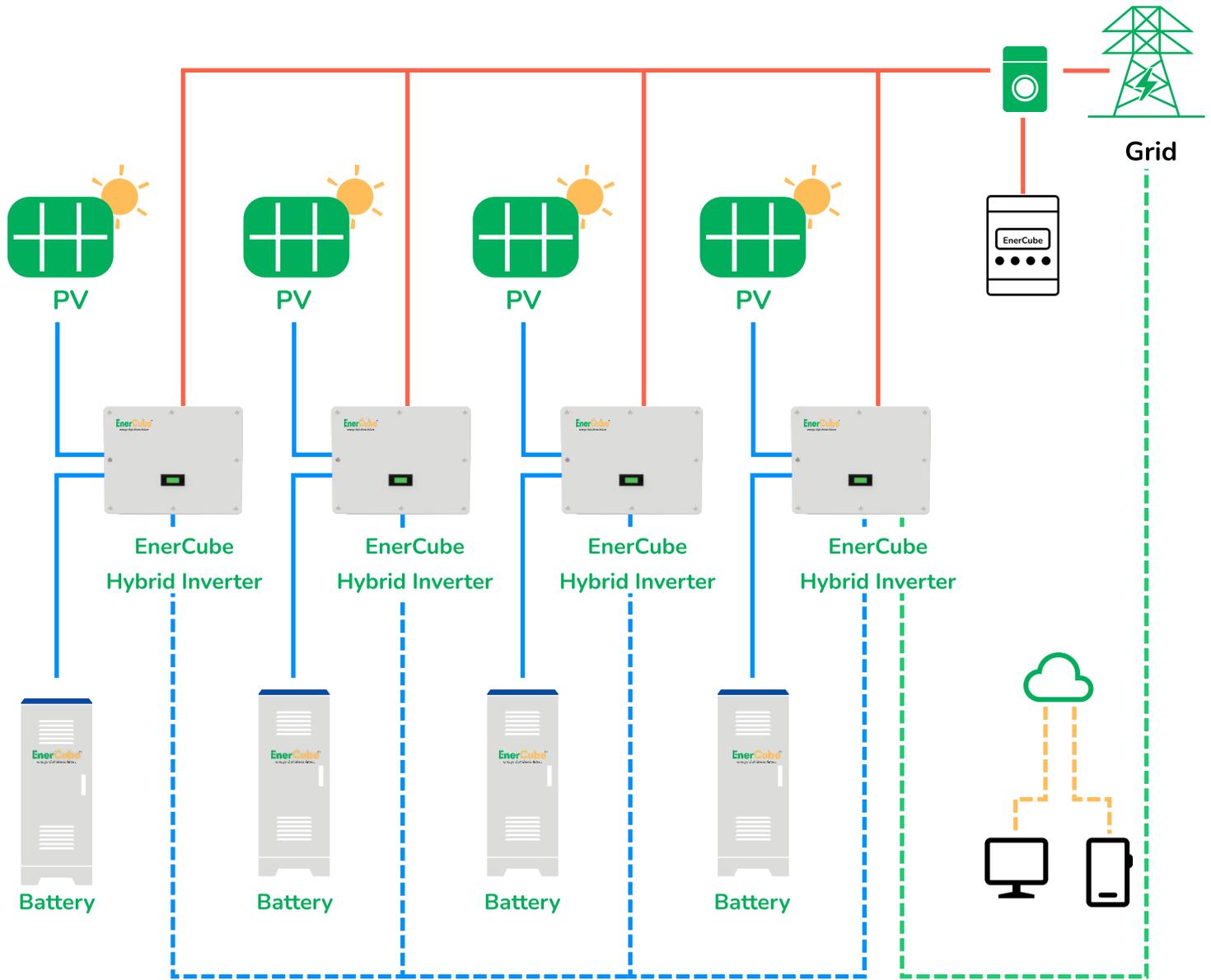


When the PV is available, the electricity generated by the PV will be supplied priority to the load and the excess electricity generated by the PV will be stored in the battery.



When the photovoltaic is not available, the system will automatically switch to the battery to supply power to the load. When the battery power is off, the system will automatically switch to mains power supply. Battery system can also be used for backup power supply. When the mains power fails, the system switches to off-grid power supply (battery power supply), and the switching time is < 20ms.

# De-Centralized System for large commercial & Industrial with Centralized Intelligence



## Intelligent Energy management\*

- 24/7 Load Monitoring
- Comprehensive Dashboard
- Central Download Center
- Wi-Fi Configuration
- Energy Flow Visualization
- Multi-Site Management
- Custom Configuration
- Intelligent Load Control



**Battery Charge (SOC) Monitoring**  
Improving energy storage tracking



**Smart Dispatch**  
Enhancing intelligent energy distribution



**Advanced Data Analysis**  
Offering deeper energy usage insights



**Open API Integration**  
Facilitating seamless system connectivity



**Parameter Expansion**  
Providing more customizable options



**Expanded Device Support**  
Broadening compatibility with new devices



**Battery Health (SOH) Monitoring**  
Extending battery life insights



**Enhanced BMS Communication**  
Optimizing battery management interactions

# Product specification

<https://www.energube.in/>

		ECHF-10-20	ECHF-10-40	ECHF-20-40	ECHF-20-80
PV Parameters	MPPT voltage range	DC200V~DC850V			
	No. of MPP trackers	2			
	MPPT channel Qty	2			
	Max. input current	30			
	Rated output power	10kW		20kW	
	Rated grid voltage	3W+N+PE, 400V/415V			
	Voltage range	15%~+10%			
AC parameters. (On-grid)	Rated frequency	50Hz/60Hz			
	Frequency range	±2Hz			
	Output current harmonic	≤3%(Rated Power)			
	Power factor	0.8 leading ...0.8 lagging			
	Overload capacity	105% ~ 120%: 10min; stop operation			
	Rated output power	10kW		20kW	
	Rated voltage	3W+N+PE, 380V/400V			
AC parameters (Off-grid)	Output voltage harmonics	≤3%(Linear full load)			
	Rated frequency	50Hz/60Hz			
	switching time	<20ms			
	Overload capacity	105% ~ 120%: 10min; 120%;stop operation			
	Inverter Protection Degree	IP65			
	Inverter Topology	Transformer less			
General	Cooling	Fan			
	Display	LED/OLED			
Protection	DC reverse polarity/Over temperature/ Islanding/ AC over voltage/Overload				
	Continuous Load (KW)	10KW	10KW	20KW	20KW
	Battery type	LFP			
	Each module Voltage (v)	48	48	48	48
	Nominal DC voltage	240	240	240	240
	DC Voltage Range	220V~260V	220V~260V	220V~260V	220V~260V
	Module AH	100	200	200	200
	Module kWh	4.8	9.6	9.6	9.6
	Module Qty	5	5	5	10
	Nos. of Battery Rack	1	1	1	2
	Total Capacity (kWh)	24	48	48	96
	Max continuous current (A)	50	100	100	200
	Total Useable power kWh	20	41	41	82
	Running Time (Hrs)*	2	4	2	4
Battery	Working Temperature	Charging 0 to 45 DegC ; Discharging 10 to 45 DegC			
	Battery Working Temperature Without Derating	20 to 45 DegC			
	Module Enclosure Protection	IP65			
	Cooling	Liquid Immersion based Thermal Management System			
	Fire Suppression System	Liquid Immersion based Oxygen cutoff and Fire Suppression System			
	Design Life cycle	5000 cycles /10 Years		(0.5C@25°C charging&discharging @90%DOD	
	Nos of Rack	1	1	1	2
	Isolation	No			
	Protection	Indoor			
	Storage temperature	15 to 35 DegC			
	Relative humidity	0%RH ~95% RH No condensation			
	Max working altitude	1000m			
	Display	APP based mointoring Mobile /PC			
	Communication	RS485 ; CAN			
Battery Rack Dimension W*D*H (mm) (Total system)	350*500*1600	750*700*1600	750*700*1600	1550*700*1600	
Weight (kg) (Battery + Rack)	490kg	780kg	780kg	1460kg	

\* Running time depends the load and effect on battery internal capacity degradation Specifications and Product image /colour are subject to change without prior notice.

\*\* Battery rack needs to placed Inside shade

# Product specification

<https://www.energube.in/>

	ECHF-30-60	ECHF-30-120	ECHF-50-100	ECHF-50-200	
PV Parameters	MPPT voltage range	DC200V~DC850V			
	No. of MPP trackers	4			
	MPPT channel Qty	2			
	Max. input current	30 *4			
	Rated output power	30kW		50kW	
	Rated grid voltage	3W+N+PE, 400V/415V			
	Voltage range	15%~+10%			
AC parameters. (On-grid)	Rated frequency	50Hz/60Hz			
	Frequency range	±2Hz			
	Output current harmonic	≤3%(Rated Power)			
	Power factor	0.8 leading ...0.8 lagging			
	Overload capacity	105% ~ 120%: 10min; stop operation			
	Rated output power	30kW		50kW	
	Rated voltage	3W+N+PE, 380V/400V			
AC parameters (Off-grid)	Output voltage harmonics	≤3%(Linear full load)			
	Rated frequency	50Hz/60Hz			
	switching time	<20ms			
	Overload capacity	105% ~ 120%: 10min; stop operation			
	Inverter Protection Degree	IP65			
	Inverter Topology	Transformer less			
General	Cooling	Fan			
	Display	LED/OLED			
Protection	DC reverse polarity/Over temperature/ Islanding/ AC over voltage/Overload				
	Continuous Load (KW)	30KW	30KW	50KW	50KW
	Battery type	LFP			
	Each module Voltage (v)	48	48	48	48
	Nominal DC voltage	576	576	576	576
	DC Voltage Range	528V~624V	528V~624V	528V~624V	528V~624V
	Module AH	100	200	200	200
	Module kWh	4.8	9.6	9.6	9.6
	Module Qty	12	12	12	12
	Nos. of Battery Rack	1	1	1	1
	Total Capacity (kWh)	57.6	115.2	115.2	230.4
	Max continuous current (A)	50	100	100	200
	Total Useable power kWh	48.96	97.92	97.92	195.84
	Running Time (Hrs)*	2	4	2	4
Battery	Working Temperature	Charging 0 to 45 DegC ; Discharging 10 to 45 DegC			
	Battery Working Temperature Without Derating	20 to 45 DegC			
	Module Enclosure Protection	IP65			
	Cooling	Liquid Immersion based Thermal Management System			
	Fire Suppression System	Liquid Immersion based Oxygen cutoff and Fire Suppression System			
	Design Life cycle	5000 cycles /10 Years		(0.5C@25°C charging&discharging @90%DOD	
	DC switch Protection	YES			
	AC switch Protection	YES			
	Surge Protection	YES			
	Isolation	No			
	Protection	Indoor (Dust/water free with aircooled room )			
	Storage temperature	15 to 35 DegC			
	Relative humidity	0%RH ~95% RH No condensation			
	Max working altitude	1000m			
Display	APP based mointoring Mobile /PC				
Communication	RS485 ; CAN				
	Battery Rack Dimension W*D*H (mm) (Total system)	750*700*1850	1500*700*1850	1500*700*1850	3100*700*1850
	Weight (kg) (Battery + Rack)	880kg	1660kg	1660kg	3240kg

\*Running time depends the load and effect on battery internal capacity degradation Specifications and Product image /colour are s ubject to change without prior notice. Battery rack needs to placed inside shade

## Wide range of Application

Its digital architecture and the wide range of options of Utilizing the sources in the best way to meet for your Energy conversion needs.



**Residential & commercial Power demand management**



**Industrial and commercial demand management**



**Industrial Automation Demand Management**



**Power Availability Oil dispensing station**



**Power Availability Cold storage**



**Mico Grid**

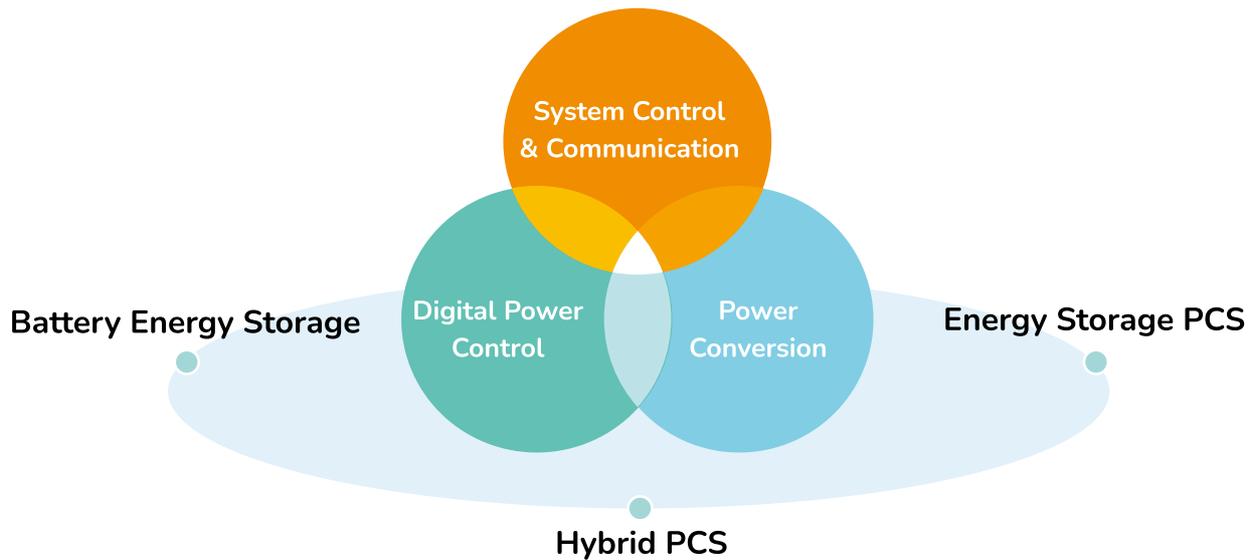
## About us

Enertech specializes in providing highly customizable EnerCube battery energy storage solution for IPPs, C&I and utilities in the renewable space.

Our battery energy storage system comes with an energy management system, a ML based software and firmware which optimizes the cost of operation by intelligently managing the available resources such as PV, DG, Biogas etc.



## Core technologies



**35 years**  
R&D experience



**20,000+**  
Installations across globe



**150MW**  
Delivery power



**R&D Recognized by  
DSIR Govt. of India**



**IGBT & Zero Change  
over time in PCS**

## Site References



**Application:** Industry  
**Rating:** 400kW/600kWh  
**Site location:** Tamil Nadu, India



**Application:** Healthcare  
**Rating:** 200kW/500kWh  
**Site location:** Pondicherry, India



**Application:** Institute  
**Rating:** 100kW/100kWh  
**Site location:** Mumbai, India



**Application:** Polyhouse  
**Rating:** 200kW/200kWh  
**Site location:** Nashik, India



**Application:** Micro-grid  
**Rating:** 100kW/200kWh  
**Site location:** Ladakh, India



**Application:** Cold Storage  
**Rating:** 300kW/400kWh  
**Site location:** Kanpur, India



**Application:** Education University  
**Rating:** 100kW/200kWh  
**Site location:** Ladakh, India



**Application:** Resort  
**Rating:** 250kW/300kWh  
**Site location:** Goa, India

# Product Overview



**Residential Solar  
Storage System**  
5kWh~5KWh



**Large residential  
& commercial**  
20kWh ~200kWh



**All-in-one Hybrid  
Compact systems**  
50kWh ~200KWh



**Plug & play  
Storage Cabine**  
100kWh ~300KWh



**Energy Storage  
Container**  
500 kWh ~MWh

## EnerCube e-Storage



### **Marketed & Sold by**

Enertech Industrial Solution LLP  
S. No. 399/1-2, Bhare, P. O. Ghotawade,  
Near  
Pirangut, Taluka- Mulshi,  
Dist.- Pune – 412115 India

### **Our Product offering**

Online UPS  
Energy storage System  
Solar Hybrid PCS  
Static Frequency Converter,  
Industrial Battery Charger

### **Website**

<https://www.enercube.in/>

### **Mobile /WhatsApp:**

+91 7387422231 ,  
+91 9373336340.

For more information, please contact your local EnerCube representative or visit: [EnerCube.in](https://www.enercube.in/)

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