

ECOFLOW



Home Solar Battery Solution

One Powers All

EcoFlow OCEAN 2 Three-Phase

6/8/10/12 kW



One Power All

EcoFlow OCEAN 2 Three-Phase

The next generation of EcoFlow's three-phase home energy system. Built on the all-new OCEAN 2 LFP battery packs, OCEAN 2 delivers higher system performance, smarter whole-home energy control, and faster, more reliable installation.

And it's designed to stay compatible with EcoFlow's previous-generation series—making upgrades and expansions simpler across projects.





Key Highlights

Second-Generation Three-Phase Solar + Storage System

All-in-one System Design

All-New OCEAN 2 LFP Battery Packs

10,000+ Battery Cell Cycles

Flexible PV Design

3 Independent MPPTs

True Whole-Home Backup, Built In

0 ms Switchover

Ready for What's Next

V2X-Ready

Works Seamlessly with Existing EcoFlow Systems

Cross-Generation Compatible

Built for every scenario. Perfect your complete energy journey.



Generation

Optimised Solar Harvest. Tailored for Complex Rooftop Layouts

Up to 24kW PV Input | 120V Low Start-up Voltage

With a 120V low start-up voltage, OCEAN 2 begins generating earlier. Supporting up to 24kW PV input and three independent MPPTs, it enables flexible PV layouts for complex rooftops—maximising roof utilisation and solar yield.



Storage

Long-Lasting Storage. Built on the New OCEAN 2 Battery Packs

10,000+ battery cell cycle | Up to 12 Battery Packs per Inverter

Powered by the all-new OCEAN 2 LFP battery packs, OCEAN 2 is built for long operational lifecycles. With over 10,000 charge cycles, it delivers consistent storage performance for both daily use and long-term energy planning.





Power

Stable Power Delivery. Optimised for Efficiency

3.4kW Battery Discharge Power 100% Unbalanced Load Support

With up to 3.4kW discharge per 5kWh battery, OCEAN 2 supports more appliances running at once within the same capacity. With 100% unbalanced load support, it maintains a stable three-phase output under demanding loads. Optimised for standby and light-load operation, it reduces energy loss over time—saving up to 6,000kWh* across its lifespan.

* Figures are based on internal testing and typical household usage scenarios. Actual results may vary.



Backup

True Whole-Home Backup You Can Rely On

Integrated Whole-home Backup (63A Bypass) 0ms Load-Side Switching

With 63A whole-home backup and 0ms switchover, OCEAN 2 restores power instantly—no extra backup box, no complex rewiring. It also supports third-party inverters and ATS-enabled generators for reliable backup through extended outages.

Pre-Integrated Design. Simpler from Start to Finish.

From unpacking to commissioning, OCEAN 2 eliminates unnecessary components, wiring, and manual adjustments—streamlining on-site workflows and reducing installation errors.

Easy Site Selection

Small Footprint. Big Flexibility.

Designed for diverse installation environments, OCEAN 2 fits tight indoor spaces, outdoor locations, and sites where floor placement isn't ideal.

- Compact battery design, only 279mm high.
- IP66-rated for outdoor installation
- Floor-mounted or wall-mounted for flexible site planning

Easy Handling

Easier to Carry. Easier to Position.

With a lightweight, installer-friendly design, OCEAN 2 simplifies on-site handling.

- Just 46kg per battery pack
- Built-in handles for secure grip and safer lifting

Easy Installation

Wiring Time Saved, Step by Step



20+ min saved

Clean, stackable design



60+ min saved

Integrated whole-home backup



50+ min saved

Built-in smart meter



3 min only

Fast commissioning via EcoFlow Pro App



80% Troubleshooting Accuracy. Worry-Free Maintenance

OCEAN 2 continuously monitors system performance through a cloud-based BMS and automatically optimises SOC strategies. Early alerts enable proactive intervention, while remote troubleshooting significantly reduces on-site visits.

Remote

Troubleshooting

Cloud BMS

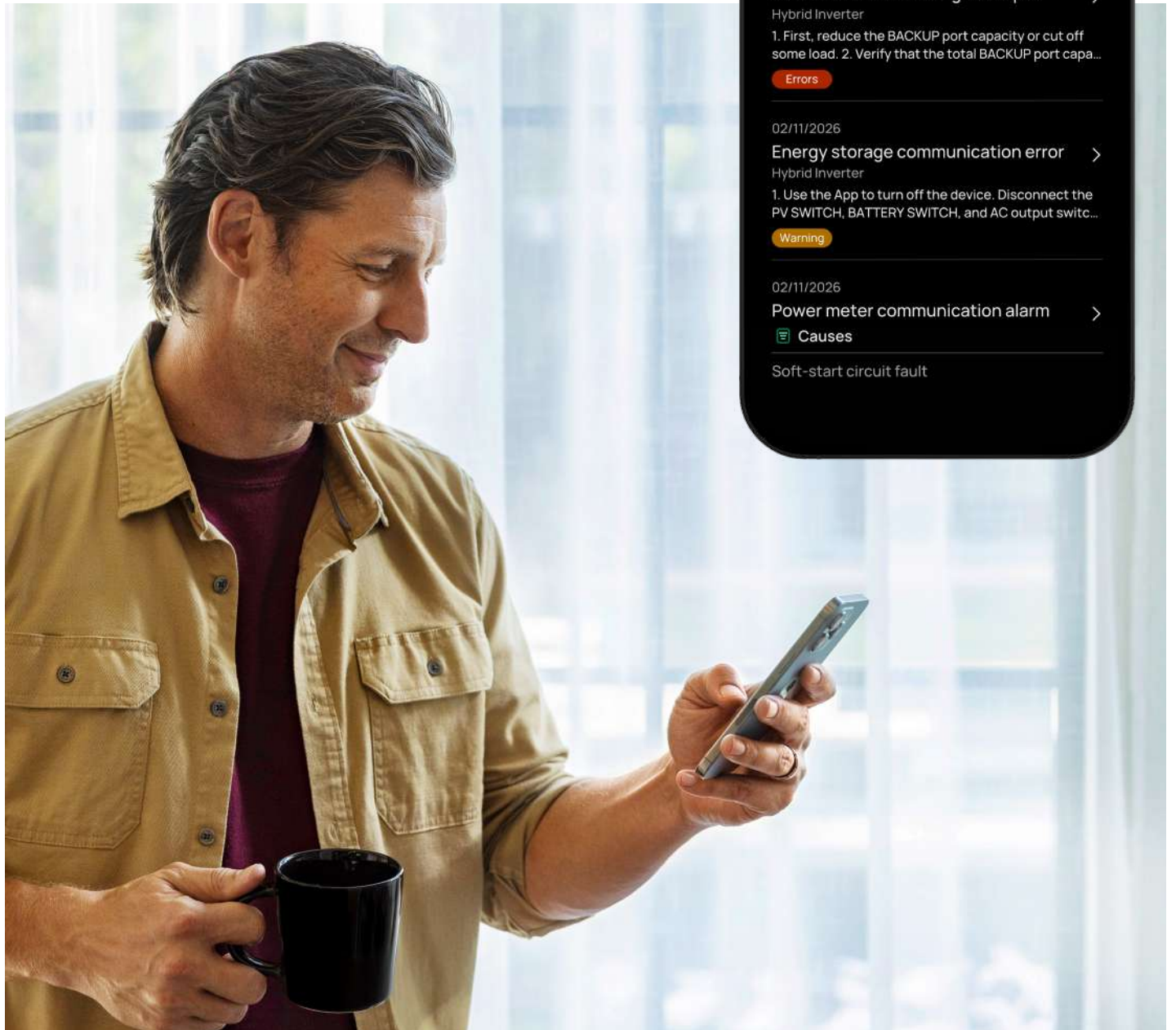
Monitoring & early warning

Automatic SOC

Calibration & balancing

AFCI

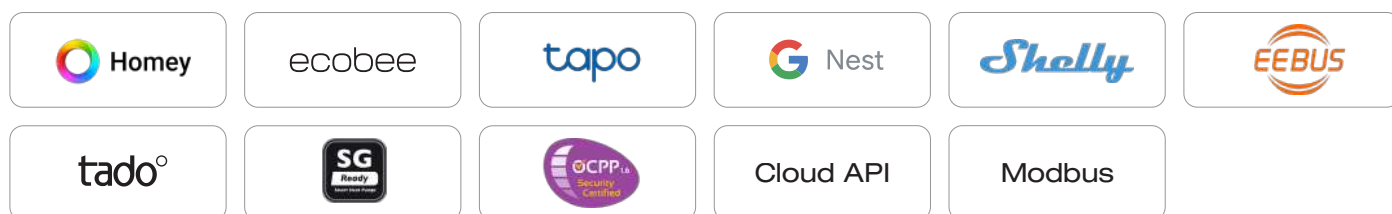
Fault detection and shutdown



One Ecosystem. Seamless Whole-Home Integration.

1 Energy Brain | 8 EcoFlow Products | N Smart Platform Integrations

With OCEAN 2 at the core, solar generation, storage, consumption, backup, and future energy extensions are unified into one intelligent energy platform. All components are managed through one-tap app control, enabling smarter optimisation, simpler operation, and scalable system growth—without added complexity.



Save Up to 77.6% with Intelligent HEMS

Powered by EcoFlow HEMS, OCEAN 2 automatically optimises solar generation, storage, energy use, and grid interaction based on each home's unique energy profile.

90%
solar prediction accuracy

90%
consumption forecast accuracy

500+
dynamic tariff integrations

VPP-ready



Quality & Reliability

Built to Withstand Harsh Conditions, Year After Year

Engineered for demanding environments, the bottom battery pack features IP66 protection with 72-hour* water-immersion tolerance.

OCEAN 2 operates reliably across extreme temperatures from -20°C to 55°C , delivering consistent performance in all conditions.

**Applies to the bottom battery module under specified test conditions.

Safety

Ten Layers of Battery Protection, From Component to System

Designed with safety at its core, OCEAN 2 protects critical points across the entire energy path. Continuous real-time monitoring helps prevent overheating, short circuits, and fire risks. Early detection stops faults from escalating—delivering stable, secure energy storage for years.

EcoFlow OCEAN 2 Hybrid Inverter Three-Phase

Technical parameters		EF HD-P3-6K0-S2 EF HD-P3-6K0-S2F	EF HD-P3-8K0-S2 EF HD-P3-8K0-S2F	EF HD-P3-10K0-S2 EF HD-P3-10K0-S2F	EF HD-P3-12K0-S2 EF HD-P3-12K0-S2F
PV input	Number of MPP Trackers	3			
	Number of Strings per MPPT	1			
	Max. Input Power per MPPT(W)	8000	8000	8000	8000
	Max. Input Voltage ¹ (V)	1000			
	PV Operating Voltage Range(V)	50~1000			
	MPPT Voltage Range at Rated Power(V)	500~850			
	MPPT Start-up Voltage(V)	120			
	Max. Total Input Power(W)	12000	16000	20000	24000
	Max. Input Current per MPPT(A)	16			
	Max. Short Circuit Current per MPPT(A)	20			
AC Input/ Output (On-Grid)	Rated Input Power(W)	6000	8000	10000	12000
	Max. Apparent Power(VA)	6600	8800	11000	13200
	Supported Power Grid Types	Supports TN-S,TN-C,TN-C-S,TT systems			
	Nominal Voltage(V)	L-L:380/400Vac; L-N: 220/230Vac; 3L+N+PE			
	Nominal Frequency(Hz)	50/60Hz			
	Nominal Current	8.7A@230V; 9.1A@220V;	11.6A@230V; 12.2A@220V;	14.5A@230V; 15.2A@220V;	17.4A@230V; 18.2A@220V;
	Max. Output Current(A)	10.7	14.3	17.8	21.4
	Max. Input Current(A)	63	63	63	63
	Power Factor	0.8 leading ~ 0.8 lagging			
	THDi at Full Load	Current Total Harmonic Distortion ≤3%			
AC Output (Off-Grid)	Nominal Output Power(W)	6000	8000	10000	12000
	Nominal output voltage(V)	50/60Hz; L-L:380/400Vac; L-N: 220/230Vac; 3L+N+PE			
	Nominal output frequency(Hz)	50/60Hz			
	Nominal output current	8.7A@230V; 9.1A@220V;	11.6A@230V; 12.2A@220V;	14.5A@230V; 15.2A@220V;	17.4A@230V; 18.2A@220V;
	Off-grid THDu	≤2%			
Parallel Installation	Maximum on-grid capacity ²	Up to 5 cascaded inverters			
	Maximum off-grid capacity	Up to 2 cascaded inverters			
Battery Input/ Output	Rated Voltage(V)	800V			
	Voltage Range(V)	720~960			
	Battery Capacity	Up to 12 Battery Modules			
	Communication method	CAN			
Efficiency	Max. efficiency	97.8%			
	Self Consumption (Light-load scenario) ³ (W)	50			

Protection	Grid-to-Off-grid Switching Time ⁴ (ms)	0
	Off-grid-to-Grid Switching Time ⁴ (ms)	0
	GFCI	Yes
	AFCI	Yes
	PV Insulation Resistance Detection	Yes
	Anti-islanding Protection	Yes
	PV Reverse Polarity Protection	Yes
	Emergency Power Off (EPO)	Yes
	DC Surge Protection	Type II
	AC Surge Protection	Type II
	AC Overcurrent Protection	Yes
	AC Short Circuit Protection	Yes
AC Overvoltage Protection	Yes	
General	Relative Humidity	0% ~ 100%
	Operating Temperature Range	-20°C~60°C >40°C derating
	Storage Temperature(°C)	-30°C~60°C
	Operating Altitude(m)	3000, >2000 derating
	Ingress Protection Rating	IP66
	Communication Method	Bluetooth, WiFi, RS485, CAN
	User Interface	LED&APP
	Weight(kg)	Approx. 36.5
	Dimension (WxDxH) (mm)	680×406.5×203
	Environmental Category	Outdoor/Indoor
	Mounting Method ⁵	Floor Stand/Wall Mounted
Anti-theft	Supported	
Compliance	IEC/EN 62109-1, IEC/EN 62109-2, AS 60947.3, ISO 4892-4 EN 300 328, EN 301 893, EN 301 489-1, EN 301 489-17 V3.3.1, EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, EN IEC 61000-3-11, EN 61000-3-12, EN 55011, EN 62920, EN IEC 62311, EN 50665 VDE-AR-N 4105, EN 50549-1, EN50549-10, AS/NZS 4777.2, OVE-Richtlinie R, TOR Erzeuger (for Type A), PTPIREE (Type A), PPDS, CEI 0-21, G98, G99, G100, G98 NI, G99 NI, TR3.3.1 UNE 217001, UNE 217002, IEC 62116, NTS(Type A), C10/C11, SI 4777.2, Portaria n.º 73/2020	

1. PV input voltage should not exceed the specified maximum value. Exceeding this limit may trigger system protection or affect normal operation.

2. In grid-connected parallel operation, load-side current is limited by the maximum input current rating of the grid port.

3. 50±1W indicates the system self-consumption measured under light-load conditions (<300W total load) in a laboratory environment.

4. The 0 ms transfer time applies under the following conditions: compliance with local grid regulations, in the open-circuit state of the power grid, total load power does not exceed the rated output backup power, stable grid conditions.

5. Maximum 3 battery packs supported for wall-mounted installation.

EcoFlow OCEAN 2 LFP Battery 5kWh

Technical parameters		EF BD-5-S2
Performance	Battery Nominal Capacity(kWh)	5.02
	Battery Cell Type	LiFePO ₄
	Nominal Charging Power(kW)	2.5
	Nominal Discharging Power(kW)	3.4
	Nominal Voltage(V)	400 / 800
	Operating Voltage Range(V)	360-520V / 720-960
General	Dimension(WxDxH) (mm)	680 × 196 × 279
	Weight (kg)	46
	Installation	Floor Stand: A stack of up to 6 batteries Wall Mounted: A stack of up to 3 batteries
	Operating Temperature ¹ (°C)	-20°C ~ 55°C ²
	Storage Temperature (°C)	-25°C ~ 60°C
	Max. Operating Altitude ² (m)	3000
	Relative Humidity	0% ~100%
	Cooling Method	Natural Cooling
	Ingress Protection Rating	IP66
	Anti-theft	Supported
	Communication method	CAN
	Protection	Over-charge/over-discharge protection, over-voltage/under-voltage protection, over-current protection, short-circuit protection, reverse-polarity protection, temperature protection, thermal-runaway protection, leakage-current protection, insulation protection, over-pressure protection, automatic power-off protection, emergency shutdown
Compliance	IEC/EN 62619, IEC/EN 62040-1, IEC/EN 62477-1, ISO 13849-1, VDE-AR-E 2510-50, EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, UN 38.3	

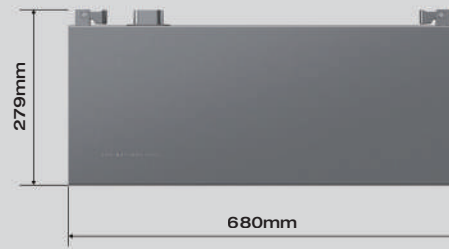
1. Power may be derated when the temperature exceeds 40 °C.

2. Power may be derated above 2000 m.

EcoFlow OCEAN 2 Hybrid Inverter



EcoFlow OCEAN 2 LFP Battery (5kWh)



Accessories

Emergency Stop Button

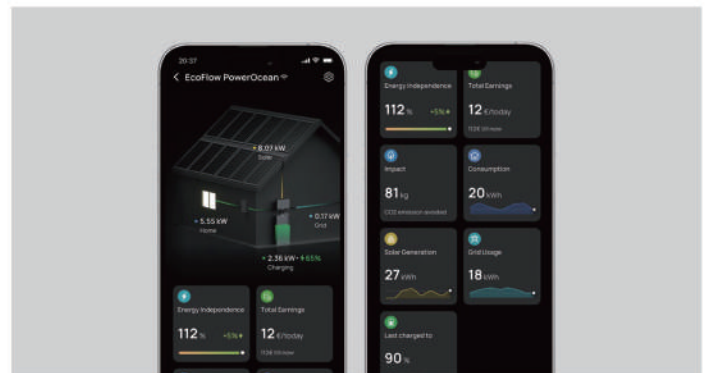
Designed to achieve rapid shutdown to cut off the power supply of the entire system.



EcoFlow App and Web Portal

EcoFlow App and Web Portal For End Users

The EcoFlow app provides a simple, unified way to manage your EcoFlow products. Whether you're monitoring your home energy ecosystem or controlling EcoFlow portable power stations, everything is brought together in one intuitive platform—giving you personalised energy insights, control, and device management.



EcoFlow Pro App and Web Portal for Installers

Instant Setup

Complete installation with a fast, three-step commissioning process.

Mobile Control

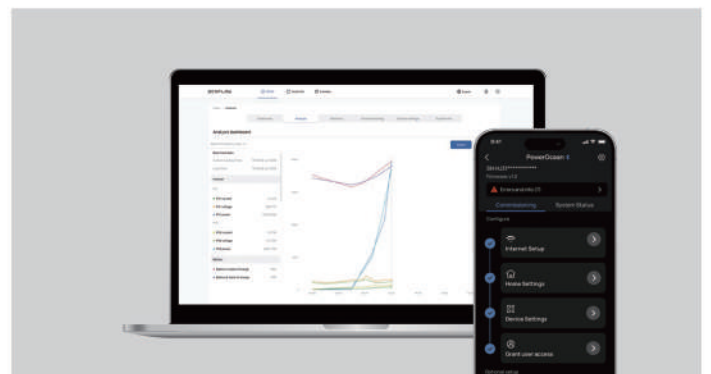
Monitor and manage authorised systems directly from your smartphone.

On-the-Go Troubleshooting

Identify and resolve issues faster with real-time error code alerts.

Detailed Diagnostics

Access in-depth error code details for precise troubleshooting and maintenance.



* Specifications, features, descriptions, availability, and other product information shown may differ from the actual product and are subject to change without notice. EcoFlow reserves the right to modify products and related information—including components, performance, and capabilities—at any time. Images and on-screen content are for demonstration purposes only.

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