Solar Battery Storage Solution

EcoFlow OCEAN 2 Plus Single-Phase

The Next-Level All-in-One.



Designed to Simplify Every Step of Installation



Ultra-Compact

From indoor to outdoor, from tight spaces to open areas, OCEAN 2 installs with ease.

- 279mm Battery Height
- Footprint Under 0.15 ㎡



Ultra-Light

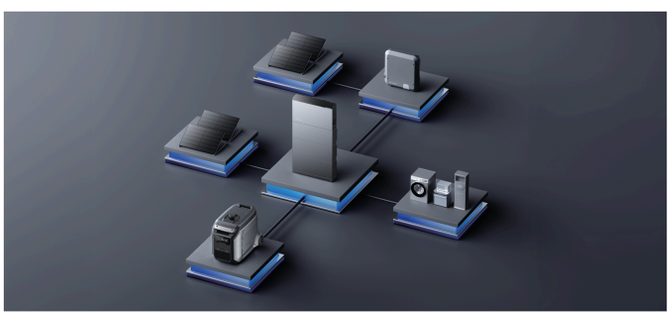
Making handling easier and safer on site.
Only 46 kg each pack



Ultra-Short Installation Time

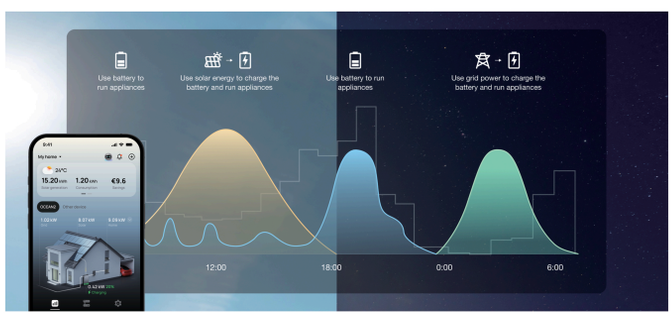
Pre-Integrated Design. Simpler from Start to Finish.

- Built-in handles, captive side screws, and no side decorative covers, **save 20+ minutes**
- Integrated whole-home backup connection, **save 60+ minutes**
- Built-in smart meter, **save 50+ minutes**



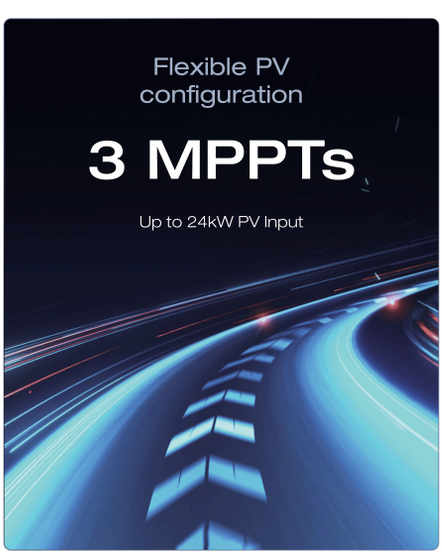
Integrated Whole-Home Backup

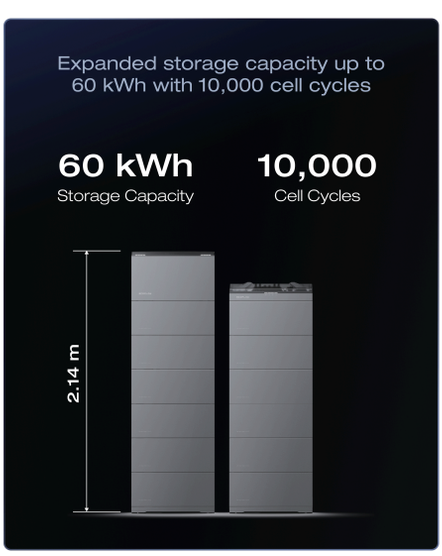
Enjoy integrated whole-home backup with 72A bypass and 0 ms load-side switching*, ensuring your lights, appliances, and critical systems stay on without noticeable interruption during grid outages. The system also supports intelligent third-party inverter connection on the backup side, giving you greater flexibility when integrating existing solar setups.



Maximize Energy Savings Automatically and Intelligently

With EcoFlow HEMS Intelligent Mode (SmartEarning), your system automatically optimizes when to charge and when to use stored energy—helping you reduce electricity bills without manual intervention.
By integrating dynamic electricity tariffs, the system charges the battery when prices are low and powers your home when rates are high. Every charging and discharging decision is made with cost optimization in mind, while also improving the utilization of your solar energy.







Open Ecosystem.
Total Home Energy Control.

The EcoFlow Home Energy Ecosystem connects solar, battery storage, EV charging, smart heating, and other smart home devices into one seamless platform, giving homeowners complete visibility and control over how energy is generated, stored, and used. EcoFlow works with a variety of smart home platforms and protocols to deliver the ultimate seamless smart home energy experience.

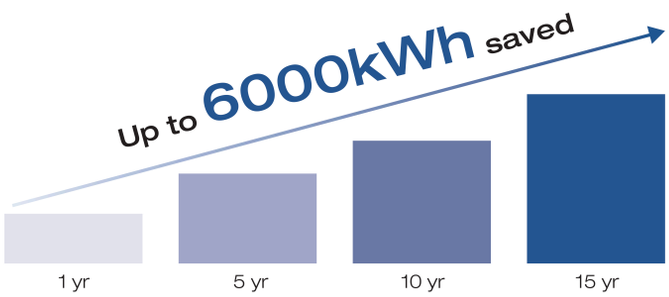
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Lower Energy Loss with Just 50W Light-load Power.

Not all savings come from peak moments. OCEAN 2 is designed with just 50W light-load power when the battery is discharging, reducing energy loss even when your home demand is low.

From standby hours to low-demand periods, the system minimizes its own energy use while staying ready to respond. Over time, these small efficiency gains add up—turning everyday idle hours into meaningful long-term savings.



*Estimated energy savings are calculated by comparing 50W light-load power with a typical system consuming 160W when the battery is discharging. Figures are based on internal testing and typical household usage scenarios. Actual results may vary.

All-Round Safety, Long-Term Peace of Mind

10-Year Warranty | AFCI Protection | 10 Layers Battery Protection

6 Layers Passive Protection

- Aerogel thermal insulation
- FPC short-circuit protection
- Fire-resistant insulation
- Built-in fire prevention module
- Explosion-proof pressure relief valve
- Aluminium alloy enclosure

4 Layers Active Protection

- NTC temperature monitoring
- AFE chip built into the BMS
- Multi-layer balancing protection
- Cloud BMS early warning



DATASHEET

EcoFlow OCEAN 2 Plus Hybrid Inverter Single-Phase

Technical Specification		EF HD-P1-6K0-S2 EF HD-P1-6K0-S2F	EF HD-P1-8K0-S2 EF HD-P1-8K0-S2F	EF HD-P1-10K0-S2 EF HD-P1-10K0-S2F	EF HD-P1-12K0-S2 EF HD-P1-12K0-S2F
PV input	Number of MPPT Trackers	3			
	Number of Strings per MPPT	1			
	Max. Input Power per MPPT(W)	8000			
	Max. Input Voltage[1](V)	900			
	PV Operating Voltage Range(V)	50~900			
	MPPT Voltage Range at Rated Power(V)	500~810			
	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)	Nominal Output Power(W)	6000	8000	10000	12000
	Max. Output Apparent Power(VA)	6600	8800	11000	12000
	Supported Power Grid Types	Supports TN-S,TN-C,TN-C-S,TT systems			
	Nominal Voltage(V)	L-N: 220Vac/230Vac; L+N+PE			
	Nominal Frequency(Hz)	50/60			
	Nominal Output Current nominal	26.1A@230V; 27.3A@220V;	34.8A@230V; 36.4A@220V;	43.5A@230V; 45.5A@220V;	52.2A@230V; 54.5A@220V;
	Max. Output Current(A)	32.1	42.8	53.5	64.2
	Max. Input Current(A)	72			
	Power Factor	0.8 leading ~ 0.8 lagging			
	THDi at Full Load	Current Total Harmonic Distortion ≤3%			
AC Output (Backup)	Nominal Output Power(W)	6000	8000	10000	12000
	Nominal Voltage(V)	L-N: 220Vac/230 Vac; L+N+PE			
	Nominal Frequency(Hz)	50/60			
	Nominal output current	26.1A@230V; 27.3A@220V;	34.8A@230V; 36.4A@220V;	43.5A@230V; 45.5A@220V;	52.2A@230V; 54.5A@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)	800			
	Voltage Range(V)	720~900			
	Battery Capacity	Up to 12 Battery Modules			
	Communication method	CAN			
Protection	Grid-to-Off-grid Switching Time[5](ms)	0			
	Off-grid-to-Grid Switching Time[5](ms)	0			
	GFCI	Yes			
	AFCI	Yes			
	PV Insulation Resistance Detection	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			

Efficiency	Max. efficiency	97.60%
	Deep power saving Mode[3](W)	15
	Self Consumption (Light-load scenario)[4](W)	50
General	Relative Humidity	0% ~ 100%
	Operating Temperature(℃)	-20~60
	Storage Temperature(℃)	-30~60
	Operating Altitude(m)	3000 (>2000 derating)
	Ingress Protection Rating	IP66
	Communication Method	Bluetooth, WiFi, RS485, CAN
	Wi-Fi Frequency Range(MHz) Maximum Output Power(dBm)	2.4GHz:2400-2483.5, 5GHz:5150-5350, 5470-5725, 5725-5850 <20
	Bluetooth Frequency Range(MHz) Maximum Output Power(dBm)	2402-2480 <20
	User Interface	LED & APP
	Weight(kg)	Approx. 36.5
	Dimension (W×D×H) (mm)	Approx. 679.6×203.2×406.5
	Environmental Category	Outdoor/Indoor
	Mounting Method[6]	Floor Stand/Wall Mounted
	Anti-theft	Supported
Compliance	Safety Standards	IEC/EN 62109-1, IEC/EN 62109-2, AS 60947.3, ISO4892-4
	Grid-tied Standards	EN 50549, G99, UNE, NTS, AS/NZS4777.2
	EMC	EN 301 489-1, EN 301 489-3, EN 301 489-17, EN 300 328, EN 301 893, EN 300 440, EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, EN 61000-3-11, EN 61000-3-12, EN IEC 62311, EN 62311, EN 50665, EN62920, EN 55011

[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] 15W + 0.5W represents the loss of an inverter; under this mode, the load draws power from the grid.
[4] 50±1W indicates the system self-consumption measured under light-load conditions (<300W total load) in a laboratory environment for one OCEAN 2 Inverter and two OCEAN 2 5kWh Battery.
[5] This specification refers to the disruption time on the BACKUP side. To achieve this functionality, the system's maximum output must exceed the total load connected to the BACKUP side. The performance was validated compliance with local grid regulations, ,under stable grid conditions, where a grid outage doesnot cause a sudden voltage drop.
[6] Maximum 3 battery packs supported for wall-mounted installation.

EcoFlow OCEAN 2 LFP Battery 5 kWh

Technical Specification		EF BD-5-S2	EF BD-10-S2	EF BD-15-S2	EF BD-20-S2	EF BD-25-S2	EF BD-30-S2
Performance	Battery Nominal Capacity (kWh)	5.02	10.04	15.06	20.08	25.10	30.12
	Nominal Voltage (V)	400/800					
	Operating Voltage Range (V)	360-520 / 720-960					
	Nominal Charging Power (W)	2500/2500	5000/5000	7500/7500	10000/10000	12000/12500	12000/15000
	Nominal Discharging Power (W)	3400/3400	6800/6800	12500/13600	12500/13600	12500/17000	12500/20400
	Battery Cell Type	$LiFePO_4$					
Compliance	Certificates	CE Mark					
	Safety Standards	IEC/EN 62619, IEC/EN 62040-1, IEC/EN 62477-1, ISO 13849-1, VDE-AR-E 2510-50					
	Delivery Standards	UN 38.3					
	EMC	EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4					
General	Dimension (L x P x H) (mm)	679.6x195.6x 494.75	679.6x195.6x 774.45	679.6x195.6x 1054.15	679.6x195.6x 1333.85	679.6x195.6x 1613.55	679.6x195.6x 1893.25
	Weight (kg)	54.6	100.1	145.6	191.1	236.6	282.1
	Installation	Floor Stand: A stack of up to 6 batteries Wall Mounted: A stack of up to 3 batteries					
	Operating Temperature[1] (°C)	-20~55					
	Storage Temperature (°C)	-25~60					
	Max. Operating Altitude (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					

[1] Power may be derated when the temperature exceeds 40 °C.
[2] Power may be derated above 2000 m.



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