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.

- 195.6 mm Ultra Slim Design
- Footprint Under 0.13m²
- Up to 3 Batteries for Wall Installation

Ultra-Light

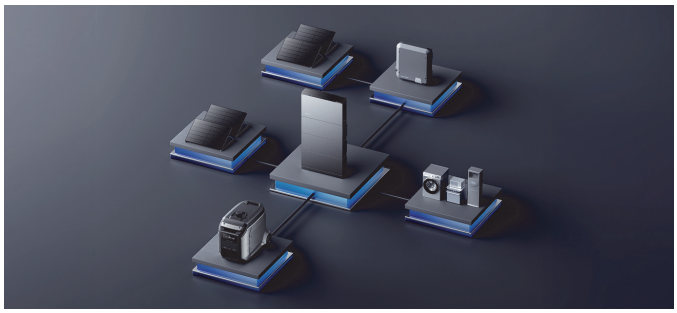
Only 46/67.5 kg* each pack, making handling easier and safer on site.

*Refer to the EcoFlow OCEAN 2 LFP Battery Datasheet for details.

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

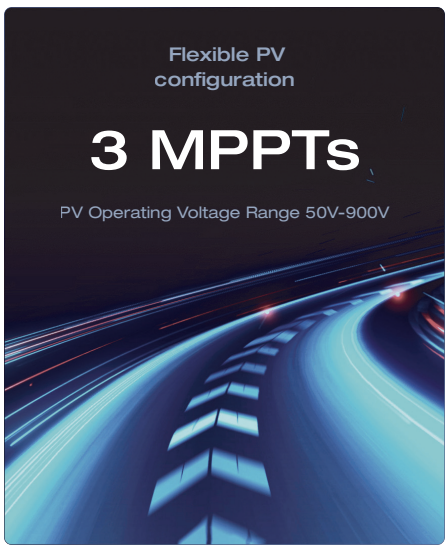
Enjoy integrated whole-home backup with 63A bypass and 0 ms load-side switching*, ensuring your lights, appliances, and critical systems stay on without noticeable interruption during grid outages. The system also supports intelligent third-party inverter connection on the backup side, giving you greater flexibility when integrating existing solar setups.

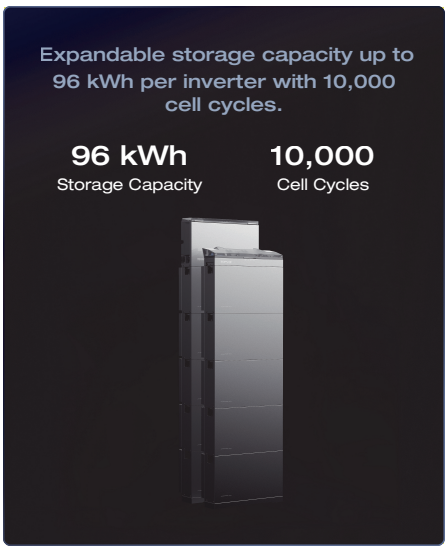
* The 0 ms transfer time applies under the following conditions: compliance with local grid regulations, in the open-circuit state of the power grid, total load power does not exceed the rated output backup power, stable grid conditions.

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, 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.

matter · Cloud API · Modbus · EEBUS · SG Ready · Shelly · tapo · ecobee · voltello · Homey · Nest · evergen



Stable, Optimized Power.
Up to 6.4kW Discharge per Battery.

With up to 6.4kW discharge, OCEAN 2 LFP Battery 8kWh supports more appllances running at once within the same capacity.

Adapt to a wide range of dynamic electricity tariffs, enabling high-power export to the grid or maximised self-consumption during high-price periods to avoid grid import. The OCEAN 2 LFP Battery 8kWh supports higher discharge power and can participate in grid frequency regulation services.

All-Round Safety,
Long-Term Peace of Mind

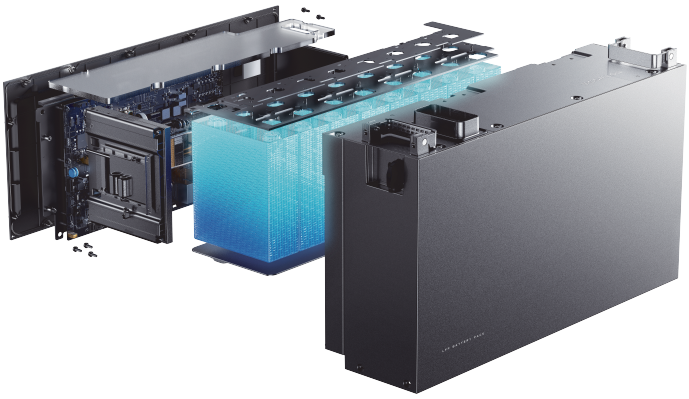
15-Year Warranty* | AFCI Protection | 10 Layers Battery Protection

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



* 10+5-year @OCEAN 2 LFP Battery 8kWh

DATASHEET

EcoFlow OCEAN 2 Plus Hybrid Inverter Single-Phase

Technical Specification		EF HD-P1-8K0-S2A	EF HD-P1-9K9-S2A	EF HD-P1-12K0-S2A
PV Input	PV Operating Voltage Range (V)	50-900		
	MPPT Voltage Range at Rated Power (V)	500-810		
	MPPT Start-up Voltage (V)	120		
	Max. Input Voltage[1] (V)	900		
	Max. Input Current per MPPT (A)	16		
	Max. Short Circuit Current per MPPT (A)	20		
	Number of MPPT Trackers	3		
	Number of Strings per MPPT	1		
	Max. Input Power per MPPT (W)	8000		
	Max. Total Input Power (W)	16000	20000	24000
AC Input/ Output (On-grid)	Rated Input Power (W)	8000	9999	12000
	Rated Apparent Power (VA)	8000	9999	12000
	Max. Apparent Power (VA)	8000	9999	12000
	Supported Power Grid Types	TN-S, TN-C, TN-C-S, TT systems		
	Nominal Voltage (V)	L-N: 220V AC/230V AC; L+N+PE		
	Nominal Frequency (Hz)	50/60		
	Nominal Current (A)	34.8 A@230 V 36.4 A@220 V	43.5 A@230 V 45.5 A@220 V	52.2 A@230 V 54.5 A@220 V
	Max. Output Current (A)	42.8	53.5	64.2
	Power Factor	0.8 leading~0.8 lagging		
	Max. Input Current (A)	63		
	THDi at Full Load	Current Total Harmonic Distortion ≤3%		
AC Output (Off-Grid)	Nominal Output Power (W)	8000	9999	12000
	Nominal Output Current (A)	34.8 A@230 V 36.4 A@220 V	43.5 A@230 V 45.5 A@220 V	52.2 A@230 V 54.5 A@220 V
	Nominal Output Voltage (V)	L-N: 220V AC/230V AC; L+N+PE		
	Nominal Output Frequency (Hz)	50/60		
	Off-grid THDu	≤2%		
Battery Input/ Output	Rated Voltage (V)	800		
	Voltage Range (V)	720-900		
	Battery Capacity	Up to 12 battery modules		
	Communication Method	CAN		
Parallel Installation	Maximum On-Grid Capacity[2]	Up to 5 cascaded inverters		
	Maximum Off-Grid Capacity	Up to 2 cascaded inverters		
Effciency	Max. Efficiency	97.6%		
	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		
	AC Overcurrent Protection	Yes		
	AC Short Circuit Protection	Yes		
	AC Overvoltage Protection	Yes		
	DC Surge Protection	Type II		
	AC Surge Protection	Type II		

Technical Specification		EF HD-P1-8K0-S2A	EF HD-P1-9K9-S2A	EF HD-P1-12K0-S2A
General	Operating Temperature Range (°C)	–20 to 60		
	Storage Temperature (°C)	–30 to 60		
	Relative Humidity	0 to 100%		
	Operating Altitude (m)	3000 (>2000 derating)		
	User Interface	LED & APP		
	Communication Method	Bluetooth, WiFi, RS485, CAN		
	Weight (kg)	Approx. 36.5		
	Dimension (W×D×H mm)	Approx. 679.6 × 406.5 ×203.2		
	Anti-Theft	Supported		
	Ingress Protection Rating	IP66		
	Mounting Method[5]	Floor Stand / Wall Mounted		
	Environmental Category	Outdoor / Indoor		
	Manufacture	Made in China		
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&RF	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 opperation.
[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 for one OCEAN 2 Plus inverter and two OCEAN 2 5kWh Battery.
[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

Technical parameters		EF OCEAN 2 LFP Battery 8kWh EF BD-8-S2A	EF OCEAN 2 LFP Battery 5kWh EF BD-5-S2
Performance	Battery Nominal Capacity(kWh)	8.03	5.02
	Battery Usable Capacity(kWh)	8.03	5.02
	Battery Cell Type	$LiFePO_4$	$LiFePO_4$
	Nominal Charging Power(kW)	4.1	2.5
	Nominal Discharging Power(kW)	4.1	3.4
	Maximum Discharging Power[1](kW)	6.4	4.08
	Nominal Voltage(V)	400 / 800	400 / 800
	Operating Voltage Range(V)	360-520 / 720-960	360-520 / 720-960
General	Dimension(WxDxH)(mm)	680 x 196 x 378	680 × 196 × 279
	Weight(kg)	67.5	46
	Installation	Floor Stand: A stack of up to 5 batteries Wall Mounted: A stack of up to 3 batteries	Floor Stand: A stack of up to 6 batteries Wall Mounted: A stack of up to 3 batteries
	Operating Temperature[2](℃)	-20~ 55	-20~ 55
	Storage Temperature(℃)	-25~ 60	-25~ 60
	Max. Operating Altitude[3](m)	3000	3000
	Relative Humidity	0% ~100%	0% ~100%
	Cooling Method	Intelligent Air Cooling	Natural Cooling
	Ingress Protection Rating	IP66	IP66
	Anti-theft	Supported	Supported
	Battery Heating	Supported	Supported
	Communication method	CAN	CAN
	Country of Manufacture	China	China
	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,water ingress detection	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, EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, UN 38.3, SA TS 5398	IEC/EN 62619, IEC/EN 62040-1, IEC/EN 62477-1, ISO 13849-1, EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, UN 38.3

1. In a laboratory environment at 25°C ambient and device temperature, the discharge time at this power is no more than 30 minutes for Ocean 2 LFP 8kWh and 20 minutes for Ocean 2 LFP 5kWh.
2. Power may be derated when the temperature exceeds 40°C.
3. Power may be derated above 2000 m.

Contact EcoFlow

Website

LinkedIn
@EcoFlow Australia

Facebook
@EcoFlow

Facebook
Community

Website: https://energy.ecoflow.com/au
Email: solutionsales.au@ecoflow.com

*Infomation might be subject to change without notice during product improvement.