

ECOFLOW

Solar Battery Storage Solution

EcoFlow OCEAN 2 Plus Single-Phase

The Next-Level All-in-One.

15
YEAR WARRANTY
ECOFLOW





3 Independent MPPTs

Up to 24 kW PV Input



Integrated Whole-Home Backup

Uninterrupted power with 72 A Bypass and 0 ms load-side switching



Brand-New OCEAN 2 LFP Battery

10,000 Cell Cycles



10 Layers of Safety Protection

6 Layers of passive protection

4 Layers of active protection



Designed to Save

Energy Savings Up to 77.6% with intelligent HEMS



Cross-Generation Compatible

Seamlessly compatible with existing EcoFlow systems



Open Ecosystem

Total home energy control

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 0.15m²
- Only 46 kg each pack

Making handling easier and safer on site.



Ultra-Short Installation Time

Pre-Integrated Design. Simpler from Start to Finish.

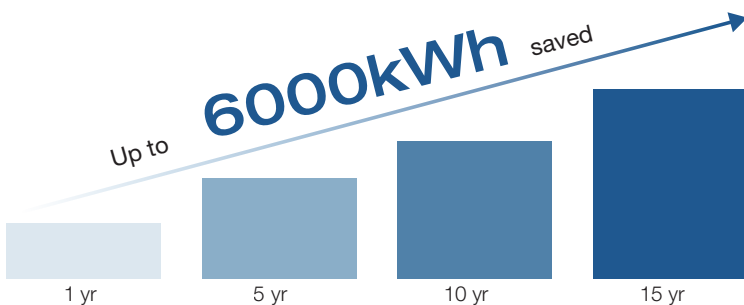
- Built-in handles, captive side screws, and no side decorative covers, save 20+ minutes
- Integrated whole-home backup connection, save 60+ minutes
- Built-in smart meter, save 50+ minutes

60 kWh
with a single inverter

300 kWh
with 5 inverters in parallel



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.

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 ⁴ (ms) | 0 | | | |
| | Off-grid-to-Grid Switching Time ⁴ (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 | | | |
| General | Relative Humidity | 0% ~ 100% | | | |
| | Operating Temperature Range (°C) | -20-60 | | | |
| | Storage Temperature(°C) | -30-60 | | | |
| | Operating Altitude(m) | 3000 (>2000 derating) | | | |
| | Ingress Protection Rating | IP66 | | | |
| | Communication Method | Bluetooth, WiFi, RS485, CAN | | | |
| | Wi-Fi Frequency Range (MHz) | 2.4GHz:2400-2483.5 , 5GHz:5150-5350, 5470-5725, 5725-5850 | | | |
| | Maximum Output Power (dBm) | <20 | | | |
| | Bluetooth Frequency Range (MHz) | 2402-2480 | | | |
| | Maximum Output Power (dBm) | <20 | | | |
| | User Interface | LED & APP | | | |
| | Weight(kg) | Approx. 36.5 | | | |
| | Dimension (WxDxH) (mm) | Approx. 679.6x203.2x406.5 | | | |
| | Environmental Category | Outdoor/Indoor | | | |
| Mounting Method ⁵ | Floor Stand/Wall Mounted | | | | |
| Anti-theft | Supported | | | | |

| | | |
|-------------------|---|--|
| Efficiency | Max.Efficiency | 97.60% |
| | Deep power saving Mode(W) | 15 |
| | Self Consumption (Light-load scenario) ³ (W) | 50 |
| 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 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.

⁴ 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 does not cause a sudden voltage drop.

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

EcoFlow OCEAN 2 LFP Battery 5 kWh

| Paramètres techniques | | 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.



Contact Us

Email: solutionservice.eu@ecoflow.com
Web: <https://energy.ecoflow.com/eu>

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