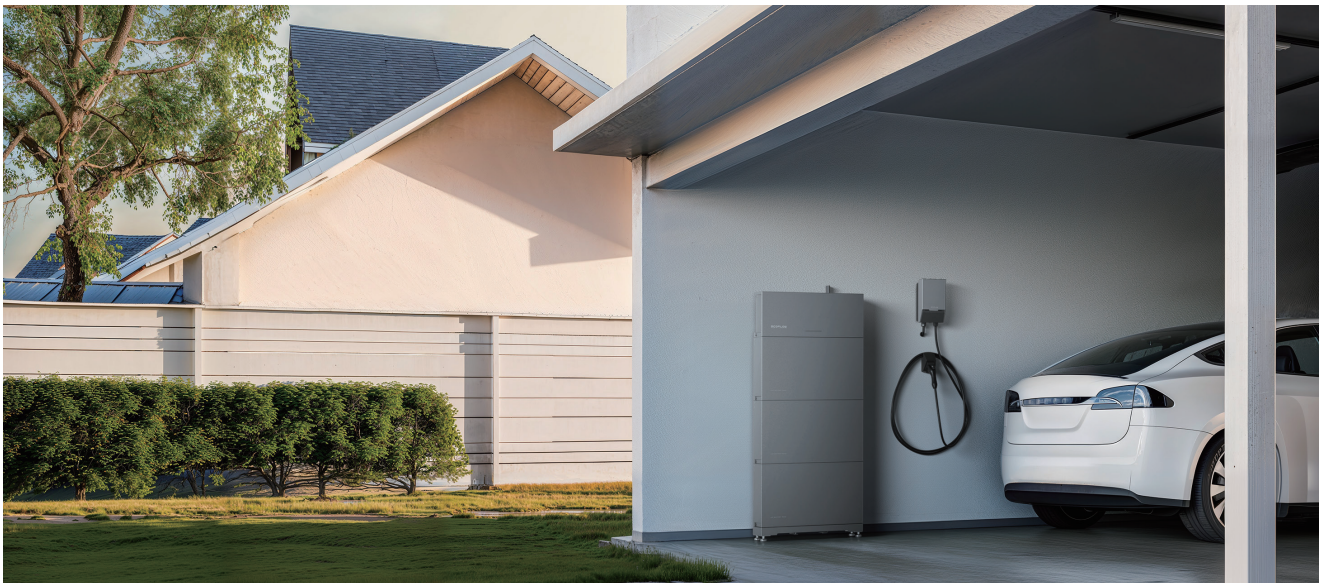
DATASHEET

EcoFlow PowerOcean Single-phase

Safety and Power Independence in Every Charge

EcoFlow PowerOcean redefines home energy storage with advanced safety, LFP battery technology, a fire prevention module, and an IP65-certified design. Offering a 15-year warranty, with batteries expandable up to 45kWh through cascading three inverters, and over 6,000 charge cycles, EcoFlow PowerOcean is a secure, scalable solution that future-proofs your home.



For installers

EcoFlow Pro Web Portal
https://portal.ecoflow.com/pro/eu

EcoFlow Pro App

For users

EcoFlow Web Portal
https://portal.ecoflow.com/user/eu

EcoFlow App

EcoFlow PowerOcean LFP Battery

Number of Battery Packs		EF BD-5.1-S1 x 1 EF BD-B-S1 x 1	EF BD-5.1-S1 x 2 EF BD-B-S1 x 1	EF BD-5.1-S1 x 3 EF BD-B-S1 x 1
Performance	Battery Nominal Capacity (kWh)	5.1	10.2	15.3
	Battery Usable Capacity (kWh)*2 (95% Depth of Discharge)	4.8	9.7	14.5
	Max. Output Power (W)	3300	6600	9900
	Max. Input Power (W)	2500	5000	7500
	Nominal Voltage (V)	800		
	Operating Voltage Range (V)	720-960		
	Battery Cell Type	LFP		
Compliance	Certificates	CB/CE MARK		
	Safety Standard	EN62619, EN62040-1, EN62477-1, ISO13849, VDE-AR-E 2510-50		
	Delivery Standard	UN38.3		
	EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		
General	Dimension (W×D×H) (mm) (Without Adjustable Feet)	680×183×452 (±1)	680×183×849 (±1)	680×183×1245 (±1)
		680×183×424 (±1) (EF BD-5.1-S1 x 1)		
	Weight (kg)	59.2	114.7	170.2
		55.5 (EF BD-5.1-S1 x 1)		
	Installation	Floor Stand/Wall Mounting		
	Operating Temperature (°C)	-20 to 50		
	Max. Operating Altitude (m)	3000		
	Cooling Method	Natural Convection		
	Noise Emission (dB)	≤35*1		
	Relative Humidity	0%-100% (Condensing)		
	Active Aerosol Fire Prevention Module	Integrated		
	Protection Level	IP65		
	Protective Class	I		

*2 To maintain optimal battery performance in low-temperature environments, the depth of discharge (DoD) may vary with actual temperature. This is a normal fluctuation.

EcoFlow PowerOcean Hybrid Inverter

Technical parameters		EF HD-P1-3K-S1	EF HD-P1-3.68K-S1	EF HD-P1-4.6K-S1	EF HD-P1-5K-S1	EF HD-P1-6K-S1
DC Input (PV)	Maximum PV Power (W)	9000	9680	10600	11000	12000
	Maximum Input Voltage (V)	600				
	Mppt Voltage Range (V)	90V-520				
	Maximum Input Current per MPPT (A)	18 (single PV input), 16 (dual PV input)				
	Maximum Short Circuit Current per MPPT (A)	20				
	Backfeed Current to the PV Array (A)	0				
	Number of MPPTs	2				
	Overvoltage Category	II				
DC Input (Battery)	Rated Voltage (V)	790				
	Maximum Voltage (V)	800				
	Rated Current (A)	7.6				
	Maximum Current (A)	7.6	7.6	7.6	7.6	8.4
	Maximum Battery Capacity (kWh)	15.3				
AC Input	Grid Connection	L+N+PE				
	Overvoltage Category	III				
	Rated Input Power (W)	3000	3680	4600	5000	6000
	Maximum Apparent Power (VA)	3000	3680	4600	5000	6000
	Rated Input Voltage (V)	220/230/240, L+N+PE				
	Maximum Input Current (A)	16	19.7	24.6	26.7	32
	Nominal Frequency (Hz)	50/60				
AC Output (On-grid)	Grid Connection	L+N+PE				
	Overvoltage Category	III				
	Rated Output Power (W)	3000	3680	4600	5000	6000
	Maximum Apparent Power (VA)	3000	3680	4600	5000	6000
	Rated Output Voltage (V)	220/230/240, L+N+PE				
	Rated Output Current (A)	13.1	16	20	21.7	26.1
	Maximum Output Current (A)	15	18.4	23	25	30
	Nominal Frequency (Hz)	50/60				
	Total Harmonic Distortion (At Rated Power)	≤5%	≤5%	≤3%	≤3%	≤3%
	Power Factor	-0.8...1...+0.8				
AC Output (Backup load)	Maximum Output Power (VA)	3000	3680	4600	5000	6000
	Nominal Output Voltage (V)	220/230/240, L+N+PE				
	Nominal Frequency (Hz)	50/60				
	Maximum Output Current (A)	16	19.7	24.6	26.7	32
	Rated Output Current (A)	13.1	16	20	21.7	26.1
Efficiency	Maximum Efficiency	>96%	>96.5%			
	European Weighted Efficiency	>95%	>96%	>95.5%	>96%	>96%
Protection	GFCI	Supported				
	Insulation Resistance Detection	Supported				
	Anti-Islanding Protection	Supported				
	PV Reverse Polarity Protection	Supported				
	AC Overcurrent Protection	Supported				
	AC Short-Circuit Protection	Supported				
	AC Overvoltage Protection	Supported				
	Protective Class	I				
Compliance	Certificates	CE/CB/DEKRA MARK				
	Safety Standard	IEC/EN62109-1, IEC/EN62109-2				
	Grid-Tied Standards	G98, G99, G100, VDE-AR-N 4105, CEI 0-21, UTE C15-712-1, VDE 0126-1-1, EN 50549-1, C10/11, NTS631, UNE 217001, UNE 217002, PPDS, PTPiREE, PSE, NC RfG, ORDINANCE No.140, NRS 097-2-1				
	EMC	EN/IEC 61000-6-1/2/3/4, IEC 61000-4-16/18/29, IEC 61000-2-2, EN 300328, EN 301489-1, EN 301489-17, EN IEC 62311				
General	Cascading	Up to 45kWh battery capacity*[3]				
	Topology	Non-isolated				
	Ingress Protection Rating	IP65				
	Operating Temperature Range (°C)	–20 to 50 (derating when the temperature is above 40 or below 0)				
	Storage Temperature Range (°C)	–30 to 60				
	Operating Humidity	0%-100% (Condensing)				
	Maximum Operating Altitude (m)	3000 (derating above 2000)				
	Weight (kg)	21.5				
	Dimensions (W×D×H) (mm)	679.6×182.7×280 (without IOT & Wi-Fi module)				
	Noise Emission (dB)	40*[1]				
	Self-Consumption at Night (W)	<30				
	Cooling Method	Natural convection				
	Communication Method	RS485 & CAN & Wi-Fi & Bluetooth & WAN & 4G				
	Wi-Fi Frequency Range, Maximum Output Power	2400 MHz-2483.5 MHz, 17 dBm				
	Bluetooth Frequency Range, Maximum Output Power	2400 MHz-2483.5 MHz, 8 dBm				
	Pollution Degree	PD3				
	Environmental Category	Outdoor/Indoor				

*[1] Noise emission value measured under laboratory conditions: ambient temperature 25°C, free-field acoustic environment, measurement position 1m directly in front of the equipment. Actual noise levels may vary depending on load conditions, installation methods and environmental reflection characteristics. This data is only applicable to the declared test conditions.
*[3] For a total battery capacity of 45kWh, 3 hybrid inverters are required. One hybrid inverter can support a maximum of 15kWh.