

DATASHEET

EcoFlow PowerOcean Single-phase

Safety and Power Independence in Every Charge

The EcoFlow PowerOcean redefines home energy storage with an advanced safety system, LFP battery tech, active fire protection module, and an IP65-certified design. Expandable up to 15kWh, it offers over 6000 charge cycles and a 15-year warranty— a secure, scalable, and future-proof power investment for your home.



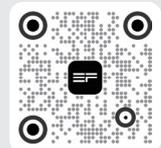
For installers



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) (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		
Compliance	Battery Cell Type	LFP		
	Certificates	CB/CE MARK		
	Safety Standard	EN62619, EN62040-1, EN62477-1, ISO13849, VDE-AR-E 2510-50		
	Delivery Standard	UN38.3		
General	EMC	EN 61000-6-1, EN 61000-6-3		
	Dimension (WxDxH) (mm) (Without Adjustable Feet)	680x183x452 (±1)	680x183x849 (±1)	680x183x1245 (±1)
	Weight (kg)	59.2	114.7	170.2
	Installation	Floor Stand/Wall Mounting		
	Operating Temperature (°C)	-20 to 50		
	Max. Operating Altitude (m)	3000		
	Cooling Method	Natural Convection		
	Noise Emission (dB)	≤35		
	Relative Humidity	0%-100% (Condensing)		
Protection Level	IP65			
Protective Class	I			

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				
DC Input (Battery)	Overvoltage Category	II				
	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
AC Input	Maximum Battery Capacity (kWh)	15.3				
	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
AC Output (On-grid)	Nominal Frequency (Hz)	50/60				
	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
AC Output (Backup load)	Nominal Frequency (Hz)	50/60				
	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
Efficiency	Maximum Output Current (A)	15	18.4	23	25	30
	Maximum Efficiency	>96%	>96.5%			
	European Weighted Efficiency	>95%	>96%			
Protection	Power Factor	-0.8...+0.8				
	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
	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	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 (WxDxH) (mm)	679.6x182.7x280 (without IOT & Wi-Fi module)				
	Noise Emission (dB)	40				
	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					

Please be advised that EcoFlow reserves the right to modify the design, components, and specifications of its products at any time without prior notice or obligation. The actual product details and final design may vary from those shown or described in this brochure.

DATASHEET

EcoFlow PowerOcean (Three-Phase)

Home Solar Battery Solution

The innovative 3-phase solar battery solution starting from 5kWh, expandable at all times.

EcoFlow PowerOcean is a premium 3-phase modular home solar solution. With a flexible upfront investment, outstanding safety features, outage backup and super smart control, PowerOcean is designed to achieve power independence for the whole house.



For installers



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EcoFlow Pro App

For users



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EcoFlow App

EcoFlow PowerOcean LFP Battery

Number of Battery Packs		EF BD-JC-S1 x 1	EF BD-JC-S1 x 1	EF BD-JC-S1 x 1
		EF BD-5.1-S1 x 1	EF BD-5.1-S1 x 2	EF BD-5.1-S1 x 3
		EF BD-B-S1 x 1	EF BD-B-S1 x 1	EF BD-B-S1 x 1
Performance	Battery Nominal Capacity (kWh)	5.1	10.2	15.3
	Battery Usable Capacity (95% Depth of Discharge) (kWh)	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		
Compliance	Battery Cell Type	LFP		
	Certificates	CE MARK		
	Safety Standard	EN62619, EN62040-1, EN62477-1, ISO13849, VDE-AR-E-2510-50		
	Delivery Standard	UN38.3		
General	EMC	EN 61000-6-1, EN 61000-6-3		
	Dimension (WxDxH) (Without Adjustable Feet) (mm)	680x183x612 (±1)	680x183x1009 (±1)	680x183x1406 (±1)
	Weight (kg)	65.6	120.9	176.2
	Installation	55.5 (EF BD-5.1-S1 x 1)		
	Operating Temperature (°C)	Floor stand		
	Max. Operating Altitude (m)	-20 to 50		
	Cooling Method	3000		
	Noise Level (dB)	Natural convection		
	Relative Humidity	≤35		
	Active Aerosol Fire Prevention Module	0%-100% (Condensing)		
Protection Level	Integrated			
	IP65			

EcoFlow PowerOcean Hybrid Inverter

Technical parameters		EF HD-P3-6K0-S1	EF HD-P3-8K0-S1	EF HD-P3-10K-S1	EF HD-P3-12K-S1
DC Input (PV)	Maximum PV Power (W)	10000	12000	14000	16000
	Maximum Input Voltage (V)	1000			
	MPPT Operating Voltage Range (V)	200-850			
	Start-Up Voltage (V)	160			
	Nominal Input Voltage (V)	600			
	Maximum Power per MPPT (W)	5000	6000	7000	8000
	Maximum Input Current per MPPT (A)	16			
	Maximum Short Circuit Current per MPPT (A)	24			
	Number of Strings per MPPT	1			
	Number of MPPTs	2			
DC Input (Battery)	Overvoltage Category	II			
	Maximum Charging Power (W)	6000	8000	10000	12000
	Maximum Discharging Power (W)	6000	8000	10000	12000
	Maximum Continuous Charging Current (A)	12.5	12.5	12.5	15
	Maximum Continuous Discharging Current (A)	12.5	12.5	12.5	15
AC Input	Rated Voltage (V)	800			
	Maximum Battery Capacity (kWh)	45.9			
	Connection	3L+N+PE			
	Overvoltage Category	III			
	Nominal Apparent Power from Utility Grid (VA)	12000	16000	16000	16000
	Maximum Apparent Power from Utility Grid (VA)	12000	16000	16000	16000
AC Output (On-grid)	Rated Input Voltage (V)	230/400, 3L+N+PE			
	Maximum AC Current from Utility Grid (A)	17.4	23.1	23.1	23.1
	Nominal Frequency (Hz)	50/60			
	Grid Connection	3L+N+PE			
	Overvoltage Category	III			
	Nominal Apparent Power Output to Utility Grid (VA)	6000	8000	10000	12000
	Maximum Apparent Power Output to Utility Grid (VA)	6000	8000	10000	12000
	Nominal Output Voltage (V)	230/400, 3L+N+PE			
	Nominal Frequency (Hz)	50/60			
	Maximum AC Current Output to Utility Grid (A)	8.7	11.5	14.4	17.4
AC Output (Backup)	Nominal Output Current (A)	8.7	11.5	14.4	17.4
	Current Total Harmonic Distortion (At Rated Power)	<3%			
	Power Factor	-0.8...1...+0.8			
	Nominal Apparent Power (VA)	6000	8000	10000	12000
	Maximum Apparent Power (VA)	7200@1 sec	9600@1 sec	12000@1 sec	14400@1 sec
	Nominal Output Voltage (V)	230/400, 3L+N+PE			
	Nominal Frequency (Hz)	50/60			
Protection	Nominal Output Current (A)	8.7	11.5	14.4	17.4
	Maximum Output Current (A)	10.4@1 sec	13.9@1 sec	17.4@1 sec	20.9@1 sec
	Voltage Total Harmonic Distortion (At Linear Load & Rated Power)	<3%			
	Residual Current Monitoring	Integrated			
	PV Insulation Resistance Detection	Integrated			
	Anti-Islanding Protection	Integrated			
	PV Reverse Polarity Protection	Integrated			
	AC Overcurrent Protection	Integrated			
	Backup Load Short-Circuit Protection	Integrated			
	AC Overvoltage Protection	Integrated			
Efficiency	DC Switch	Integrated			
	Remote Shutdown	Integrated			
	Protective Class	I			
Compliance	Maximum Efficiency	97.6%			
	Maximum MPPT Efficiency	99.9%			
	Certificates	CE/CB/TUV MARK			CE MARK
	Safety Standards	IEC/EN62109-1, IEC/EN62109-2			
General Data	Grid-tied Standards	EN 50549, EN50438, TOR Erzeuger Type A, EEA-NE7- CH, PTPIREE, UTE C 15-712-1, ANRE, O3E-323, G99, G98,CEI0-21, C10/11, VDE-AR-N-4105			
	EMC	EN 62311, EN 301 489-1, EN 301 489-17, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN IEC 61000-6-1, EN 300 328			
	Topology	Non-isolated			
General Data	Operating Temperature Range (°C)	-20 to 50			
	Storage Temperature (°C)	-30 to 60			
	Operating Relative Humidity	0%-100% (Condensing)			
	Noise Emission (dB)	<35			
	Maximum Operating Altitude (m)	3000			
	Weight (kg)	Approximately 29.6			
	Dimensions (WxDxH) (mm)	588x175x380 (±1) (without trim cover), 588x175x455 (±1) (with trim cover)			
	Protection Level	IP65			
	Self-Consumption at night (W)	<25			
	Cooling Method	Natural convection			
	Communication Method	RS485 (for Meter) & CAN (for BMS) & Wi-Fi & Bluetooth & WAN & 4G			
	Wi-Fi Frequency Range (MHz)	2412-2472 (20) / 2422-2462 (40),			
	Maximum Output Power (dBm)	18.54			
	Bluetooth Frequency Range (MHz)	2402-2480,			
	Maximum Output Power (dBm)	7.19			
Pollution Degree	PD3				
Environmental Category	Outdoor/Indoor				