



Neostar 2S Mono-Glass Module

440W-460W

Second Generation
Comprehensive Upgrade:

 **Partial Shading Optimisation**

 **Better Temperature Coefficient**

 **High Temperature Restriction**

 **Micro-crack Resistance**

 **Higher Power**

 **Lower BOS**

 **Full Black Design**



Product
Warranty



Performance
Warranty



reddot winner 2023



Munich RE

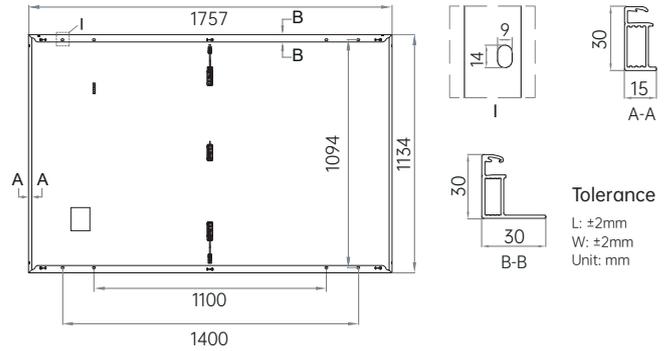
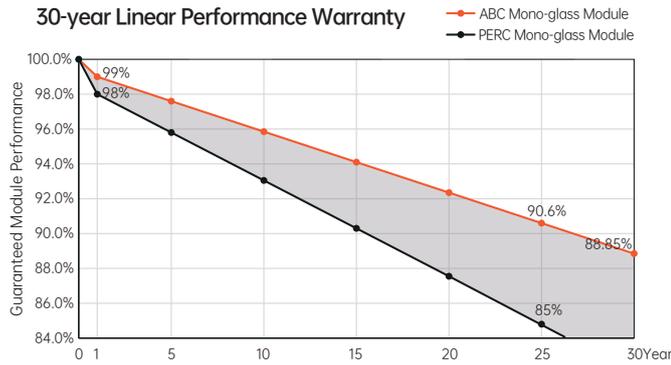


460W
Output

23.1%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30



Electrical Characteristics (STC: AM1.5 1000W/m ² 25°C NOCT: AM1.5 800W/m ² 20°C 1m/s)										Power Tolerance: 0~ + 3%	
Module Type	AIKO-A440-MAH54Mb		AIKO-A445-MAH54Mb		AIKO-A450-MAH54Mb		AIKO-A455-MAH54Mb		AIKO-A460-MAH54Mb		
	STC	NOCT									
P _{max} [W]	440	331	445	335	450	339	455	343	460	346	
V _{oc} [V]	40.49	38.24	40.59	38.33	40.69	38.43	40.79	38.52	40.89	38.62	
V _{mp} [V]	33.50	31.64	33.60	31.73	33.70	31.83	33.80	31.92	33.90	32.02	
I _{sc} [A]	13.91	11.25	14.02	11.33	14.12	11.42	14.22	11.50	14.32	11.58	
I _{mp} [A]	13.14	10.49	13.25	10.57	13.36	10.66	13.47	10.75	13.57	10.83	
Module Efficiency	22.1%		22.3%		22.6%		22.8%		23.1%		

Mechanical Specification	
Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm tempered glass
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) 1200mm
No. of Cells	108(6*18)
Junction Box	IP68,3 bypass diodes
Connector	MC4-Evo2
Weight	21.5kg
Dimension	1757*1134*30mm
Package Detail	36pcs per pallet / 216pcs per 20'GP / 936pcs per 40'HC

Temperature Ratings (STC)	
Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide	
Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V _{oc} and I _{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



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

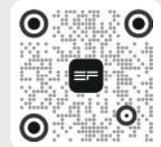


EcoFlow Pro Web Portal

<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		
	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 61000-6-3		
General	Dimension (WxDxH) (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		
	Relative Humidity	0%-100% (Condensing)		
	Active Aerosol Fire Prevention Module	Integrated		
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.

INCLUDES FREE BIRD PROTECTION



MRS BROWN

We already had solar panels installed but we're very troubled with pigeons. Deege installed the netting, the men were efficient extremely polite and tidy workers. Delighted to say we have no constant cooing now. Would highly recommend.



PROTECT BOTH YOUR INVESTMENT & WILDLIFE



ENHANCE THE AESTHETICS OF YOUR SYSTEM



MINIMISE CLEANING AND MAINTENANCE COSTS