

All-in-One ESS Series

Commercial All-in-One Solar Hybrid Energy Storage Solution (ESS) 20kW-60kWh

Integrating a 20kW solar hybrid inverter and 60kWh lithium battery bank.

Pre-wired and all housed in a modular enclosure for efficient and cost effective Plug&Play installation. Expandable for future upgrades.

A realistic way to future-proof your energy needs, through reducing power costs at peak times and reducing costly grid supply demand charges.



Features:

- Reliable energy independence, compact. Designed and manufactured to exceed expectations.
- Built of High-quality components, to endure the harsh Australian environment.
- Excellent power backup solution for commercial and industry with high power consumption in peak times.
- Battery type premium Lithium LiFePO4, Safe, high performance, long cycle life with excellent charge and discharge performance.
- Australian Warranty Std 5years, Optional 10 years. Local Australian support.
- Battery management system (BMS) has superior integrated protection functions, including over-discharge, over-charge, over-current and high/low temperature. Individual battery cell self-management.
- The All-in-One unit is pre-wired and factory tested to enable cost effective Plug&Play installation.
- Fast response time of less than 10ms (UPS level).
- 24hr Cloud based and local monitoring system enabled.
- Future-proof modular expandable system with customised solution options.
- Recyclable, non-toxic, non-polluting and environmentally friendly.

20kW Solar system daily output in Brisbane: approx. 81kWh
Battery 60kWh: eg: 3hours of Off-grid power @20kW/h
Utilising the power of the Sun in the day and night, instead of paying for grid power at peak times and costly demand charges.



Hybrid solar/battery systems combine the best out of the grid-tied and off-grid systems. Compared to off-grid systems, there is no need for the expense of a backup generator system. Additionally, the off-peak electricity from the grid is much cheaper compared to diesel, and free when the sun is out.

Every in-house SOLAR Watt generated = Realistic power cost savings

Commercial All-in-One Solar Hybrid Energy Storage Solution (ESS)			
Model		20kW-60kWh-I	20kW-60kWh-O
Efficiency	MPPT Efficiency	99.90%	
	MAX Efficiency	98.40%	
	European Weighted Efficiency	97.80%	
Battery Pack	Series	12	
	Cell Technology	Li-ion(LFP)	
	Battery Capacity(Ah)	100	
	Storage Capacity(KWh)	61.2	
	Usable Capacity(KWh)	55	
	Voltage Range(Vdc)	556-681	
	Cycle Life	3000, 90%DOD@25°C	
Battery Port	Input Voltage Range(Vdc)	180-700	
	Max Current(A)	50/50	
	Max Power(W)	20000	
	Battery Type	Li-ion/Lead-acid	
	Communication	RS485/CAN	
	Reverse Connect Protection	Y	
PV Port	Max Input Voltage(Vdc)	1000	
	MPPT Voltage Range(Vdc)	180-900	
	Max Input Power(W)	26000	
	Max PV Input Current(A)	23/23	
	Short-circuit Current of PV Input(A)	25/25	
AC Input and Output	Rated Power(W)	20000	
	Max Apparent AC Power(VA)	20000	
	Nominal AC Voltage(Vac)	415,3L/N/PE	
	AC Power Frequency(Hz)	50/60	
	Max AC Output Current(A)	31	
	Power Factor Range	~1 (Adjustable from 0.8 leading to 0.8 lagging)	
	Output THDi(@Nominal Output)	< 3%	
Off-Grid AC Output(Back-up AC Output)	Rated Power(W)	20000	
	Max Apparent AC Output Power(VA)	20000	
	Nominal AC Output Voltage(Vac)	415,3L/N/PE	
	AC Output Frequency(Hz)	50/60	
	Max AC Output Current(A)	31	
	Switch time	< 10ms	
General	Operating Temperature Range	-25°C~+60°C (> 45°C derating)	
	Operating Altitude(m)	< 4000	
	Noise(dB)	< 40	
	Topology	Transformerless	
	Relative Humidity	0-100%(non-condensing)	
	Display	LCD	
Size	Dimensions	W1160*D660*H1500mm	
Certification	Safety	IEC62109-1/-2	
	EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, IEC61000	
	On-GRID Standard	AS4777.2, NRS097-2-1:2017	

Specifications are subject to change without notice, commercial in confidence Zeus Appollo Solar 2022