

The BPE PowerDepot A1 Energy Storage System (ESS) combines a solar PV hybrid inverter, modular LiFePO4 batteries and emergency backup power all into one system. Easily control all aspects of your home's power needs through our Smart App. The PowerDepot A1 ESS allows you to simply add on more storage as required and still maintain a slim and sleek looking design. The Lithium Iron Phosphate batteries are scalable from 5.22kWh to 40kWh, allowing you to power your entire home or small business for potentially days a time.

System Summary

- » 3.6kW or 5.5kW Hybrid Inverter
- » Able to connect up to 9kW of Solar PV
- » Modular design with integrated batteries
- » Scalable from 5.22kWh to 40kWh
- » 5/10 year warranty
- » Easy-to-install and easy access to the enclosed & integrated wiring panel
- » Smart App, with Bluetooth and Wi-Fi connectivity
- » Bespoke system enclosure to include Integrated pre-wired 125A MCCB DC isolator for the batteries and cable management system
- » Slim, aesthetically pleasing design



Technical Specifications

PowerDepot A1 ESS		3.6kW Hybrid Inverter	5.5kW Hybrid Inverter
Efficiency	Max Efficiency (PV to AC)	97.3%	
Input (PV)	Max PV Power	9000W	
	Max PV Voltage	550V	
	Max Input Current (input A/input B)	15A/15A	
	Max Short Current (input A/input B)	20A/20A	
	Start Operating Voltage	90V	
	MPPT Voltage Range	70V-520V	
	Number of MPPTs	2	
	String per MPPT	1	
Input (BAT)	Compatible Battery Type	Lithium/Lead-acid	
	Nominal Battery Voltage	48V	
	Battery Voltage Range	40V-60V	
	Max Charge/Discharge Current	120A/120A	
	Max Charge/Discharge Power	3680W/3680W	5500W/5500W
	Lithium Battery Charge Curve	Self-adaption to BMS	



Visit BPE for latest updates!



e: hello@badgerpowerelectronics.com

Technical Specifications

PowerDepot A1 ESS		3.6kW Hybrid Inverter	5.5kW Hybrid Inverter
Output (Grid)	Nominal AC Output Power	3680W	5500W
	Max AC Output Apparent Power	3680VA	5500VA
	Max AC Output Power (PF=1)	3680W	5500W
	Max AC Output Current	16A	25A
	Rated AC Voltage	220V ±10%	
	AC Voltage Range	150V-300V (Adjustable)	
	Rated Grid Frequency	50Hz/60Hz	
	AC Frequency Range	45Hz-55Hz/55Hz-65Hz (Adjustable)	
	Grid Connection	Single Phase	
	Power Factor	> 0.99 @ rated power (Adjustable 0.8 LD – 0.8 LG)	
	THDI	<3% (Rated Power)	
Output (Back up)	Nominal Output Voltage	230V	
	Nominal Output Frequency	50Hz/60Hz	
	Nominal Output Power	3680W	5500W
	Nominal Output Current	16A	25A
	Transfer Time	10ms(typ) / 20ms(max)	
	THDV	<3% @ 100 % R Load	
Protection	Protection Category	Class I	
	DC Switch	Integrated	
	Anti-Islanding Protection	Integrated	
	AC Overcurrent Protection	Integrated	
	AC Short Circuit Protection	Integrated	
	DC Reverse Connection	Integrated	
	Surge Arrester	DC Type III, AC Type III	
	Insulation Detection	Integrated	
	Leakage Current Protection	Integrated	
	PV Overvoltage Category	II	
	AC Overvoltage Category	III	
Certifications	Grid	VDE-AR-N4105, IEC 61727/62116, AS 4777.2, EN 50549-1:2019, C10/11, G98, G99, CEI 0-21, NRS 097-2-1, RD 1699/661/413, NTS	
	Safety	IEC 62109-1&2, IEC 62040-1, IEC 62477-1	
	Warranty	5/10 years	



Visit BPE for latest updates!



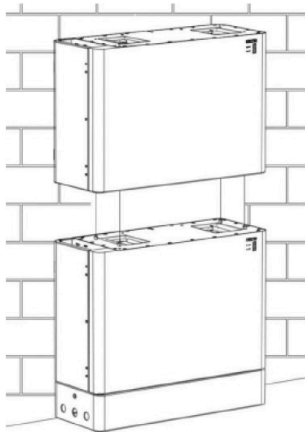
[e: hello@badgerpowerelectronics.com](mailto:hello@badgerpowerelectronics.com)

Technical Specifications

PowerDepot A1 ESS		3.6kW Hybrid Inverter	5.5kW Hybrid Inverter
General	Max Operation Altitude	4000m	
	Noise Emission	<35dB	
	Ingress Protection Degree	IP65	
	Operating Temperature Range	-25°C ~ 60°C	
	Relative Humidity	0 ~ 100%	
	Cooling Concept	Natural Cooling	
	Mounting	Wall Bracket	
	Dimensions (W*H*D)	515mm*485mm*175mm	
	Weight	25Kg	
	PV Connection Via	MC4	
	Battery Connection Via	Dedicated DC Connector	
	AC Connection Via (grid & back up)	Dedicated AC Connector	
HMI & COM	Display	LED & APP	
	Communication Interface	RS485/CAN (for BMS), RS485, USB, DRM/RS485 (for Meter), Optional: WiFi/GPRS/LAN	

Battery Summary

- » Small & compact modular design
- » 51.2V / 5.22kWh LiFePO4 battery module
- » Easy to scale up to 3 battery modules
- » Stack additional 5 batteries in parallel using same Battery management System
- » IP54 for indoor use
- » 10 Year warranty



Visit BPE for latest updates!



hello@badgerpowerelectronics.com

Battery Specifications

5.22kWh Battery Modules	BPE-PD-5.22kWh		
Module Capacity (kWh)	5.22		
Module Voltage (Vdc)	51.2		
Number of Battery Modules	1	2	3
System Capacity	5.22kWh	10.44kWh	15.66kWh
Max Charging Current	100A	120A	120A
Nominal Charging Current	80A	120A	120A
Max Discharging Current	100A	120A	120A
Nominal Discharging Current	80A	120A	120A
Cell Capacity (Ah)	102	204	306
Max Scalability	3 Batteries (15.66kWh)		
Module Cell Quantity (Per Batt.)	16		
Dimensions (W*D*H)	515*200*512	515*200*862	515*200*1212
Weight (Kg)	46	92	138
Battery Warranty	10 Years		
Operating Temperature	0°C ~ +50°C		
Storage Temperature	-20°C ~ +60°C		
Transportation Certificate	UN38.3		
Certificates	UKCA, CE		

BPE PowerDepot A1 ESS:

PART CODE TABLE

Item	Part Code	Description
A. System Enclosure		
1.	BPE-PD-A1-ESS-S	PowerDepot all-in-one, slimline energy storage system (ESS) System Enclosure - inc. Wi-Fi module and cables
B. Hybrid Inverter		
2.	BPE-HI-SP-3.6K	3.68kW single phase, solar & storage - smart hybrid inverter
3.	BPE-HI-SP-5.5K	5.5kW single phase, solar & storage - smart hybrid inverter
C. Battery		
4	BPE-PD-5.22kWh	PowerDepot 5.22kWh LiFePO4 battery for use with inverter or BPE all-in-one system



Visit BPE for latest updates!



e: hello@badgerpowerelectronics.com