



*Store Energy, Save The Planet*



## Dyness Battery

LiFePO4 Energy Storage System



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SMART ENERGY COUNCIL  
SOLAR. STORAGE. SMART ENERGY





# DYNESS

ENERGY STORAGE SYSTEM

## COMPANY PROFILE

The growing popularity of solar rooftop installation on residential and commercial building is increasing interest in batteries that could store electricity from those installations.

Such battery storage systems could benefit homeowners, by giving them more control over how and when they obtain the power they need, while helping utilities to regulate the peak and frequency by shifting demand to off-peak hours and smoothing out the load on the system.

R&D Center · Xi'an City



## About Dyness

Dyness owns the professional team with top class experts in the battery storage industry. All products in our company are produced according to international standards, and passed TUV / CE / EN62619/UL1973/ IEC62040 testing issues. We also formed a joint laboratory with Shaanxi Normal University, focusing on power battery research and development.

Our energy storage system stores excess power produced from solar in daytime, it can be used at night to increase greater energy self-sufficiency and security, or used at peak time to reduce household electric charges. Our battery is suitable for existing solar PV systems, also easy to be installed with new solar systems.

We, Dyness devote ourselves to responsible engineering of the safest, greenest possible future for you and your family. We have launched our latest Battery Energy Storage System (BESS) Powerbox to Australia, South-America, Africa, Europe with moderate price and top class quality.

Let's start using the sunshine by schedule!



# DYNESS

ENERGY STORAGE SYSTEM





# Dyness B4850

## Battery module

Intelligent

Safe

Modular



### 【Intelligent】

- Each module is equipped with an independent BMS system

### 【Compact design】

- Weight/Kg 22
- Size/mm 480 \* 360 \* 90
- Practical pull ear design improves operation convenience

### 【Safe】

- Safe lithium iron phosphate battery cell
- Compact size ultralight module

### 【Intelligent management】

- Dyness is equipped with intelligent BMS for each battery pack to manage modules effectively.
- Compared with the traditional module, B4850 can meet the capacity storage and greatly enhance the cycle life.

### 【Application】

- The Dyness battery B4850 module is widely used in energy storage and electrical products. Household energy storage systems; Centralized power station energy storage system.

Intelligent · Safe · Modular



## SPECIFICATION

Model	B4850 A	B4850
Battery Type	LiFePO4	LiFePO4
Nominal Battery Energy	2.4kWh	2.4kWh
Nominal Capacity	50Ah	50Ah
Nominal Voltage	48V	48V
Charging Cut-off vol.	54V	54V
Discharging End-off vol.	42V	42V
Recommend C Rate	0.5C	0.5C
Recommended Charge/Discharge Current[A]	25	25
Max.Power Charge/Discharge Current[A]	50	50
Peak Power Charge/Discharge Current[A]	100(15s)	55(1s)
Net Weight	22Kg	22Kg
Dimension [W*D*H]	480*405*90mm	480*360*90mm
Charging Temp. Range	0 ~ 50°C	0 ~ 50°C
Discharging Temp. Range	-20 ~ 50°C	-20 ~ 50°C
Communication	CAN / RS485 / RS232	CAN / RS485
Certification & Safety Standard	TUV/CE/EN62619/IEC62040/UN38.3/CEC Accredited/UL1973/CEI-021	
Warranty	10 Years	
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye More brands will be announced	
Pros	Can be used in both off-grid and hybrid setups, compact design	
OTA Function-Remote upgrade	Yes	No
Calendar Life <sup>[1]</sup>	6000 Cycles	6000 Cycles
Protection Level	IP20	IP20

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% DOD

# B3



## Features and advantages

- LiFePO4 battery, Safe, Longer life span
- Modular design, Easy to stack, Quick installation
- Larger energy capacity
- Natural cooling with optional heat/fan configuration
- Wide temperature range of -20~50°C



## SPECIFICATION

Model	B3A	B3
Battery Type	LiFePO4	LiFePO4
Nominal Battery Energy	3.6kWh	3.6kWh
Nominal Capacity	75Ah	75Ah
Nominal Voltage	48V	48V
Charging Cut-off vol.	54V	54V
Discharging End-of vol.	42V	42V
Recommend C Rate	0.5C	0.5C
Recommended Charge/Discharge Current[A]	37.5	37.5
Max.Power Charge/Discharge Current[A]	75	45
Peak Power Charge/Discharge Current[A]	100(15s)	55(1s)
Net Weight	32.5Kg	30Kg
Dimension [W*D*H]	480*405*130mm	480*360*130mm
Charging Temp. Range	0 ~ 50°C	0 ~ 50°C
Discharging Temp. Range	-20 ~ 50°C	-20 ~ 50°C
Communication	CAN / RS485 / RS232	CAN / RS485
Certification & Safety Standard	TUV/CE/IEC 62619/UN38.3	
Warranty	10 Years	
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye More brands will be announced	
Pros	Can be used in both off-grid and hybrid setups, compact design	
OTA Function-Remote upgrade	Yes	No
Calendar Life <sup>[1]</sup>	6000 Cycles	6000 Cycles
Protection Level	IP20	IP20

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80%Dod



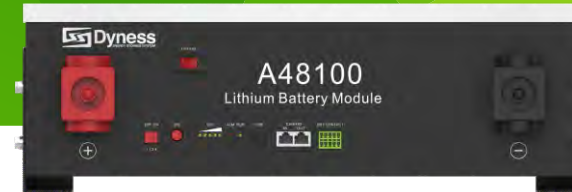
# A48 100



Safe and Reliable ▪ Higher Efficiency ▪ Floor and Wall Mount ▪ Flexible Size  
DyNESS A48100 adopt economic design, is tailor made for residential and light commercial.

## Features and advantages

- LiFePO4 battery, Safe, Longer life span
- Modular design, Easy to stack, Quick installation
- Larger energy capacity
- Natural cooling with optional heat/fan configuration
- Wide temperature range of -20~50°C
- With standard wall-mounted installation accessories
- Optional stacking brackets, will realize more than 8 modules stacking and paralleling without additional industrial cabinet.
- OTA Function: Remote monitoring and upgrade(Requires optional WiFi stick)



## SPECIFICATION

Model	A48100
Battery Type	LiFePO4
Battery Capacity [Ah]	100
Nominal Voltage [V]	48
Nominal Battery Energy [kWh]	4.8
Max Output Power [kW]	3.6
Recommended Charge/Discharge Current[A]	50
Max. Charge/Discharge Current[A]	75
Net Weight [Kg]	55
Dimension [H*W*D, mm]	504*597*155
Working Voltage [V]	42~54
Operating Temp. Range [°C]	-20~50
Calendar Life [Cycles] <sup>[1]</sup>	3500
Protection Level	IP20
Communication	CAN/ RS485/ RS232
Certification & Safety Standard	CE/ UN38.3
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye More brands will be announced
Scalability [kWh]	Up to 40 units to parallel
Warranty	5 Years
Warranty Document Supplied	Yes
Color	White
Alarms	Overcharge Overdischarge Overcurrent Overtemperature Short Circuit
Pros	Can be used in both off-grid and hybrid setups, compact design, floor or wall mount
Monitoring & Protection	Each system has intelligent BMS, and breaker embedded in system

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% Dod

# B51 100



## Features and advantages

- LiFePO4 battery, Safe, Longer life span
- Modular design, Easy to stack, Quick installation
- Larger energy capacity
- Natural cooling with optional heat/fan configuration
- Wide temperature range of -20~50°C
- OTA Function: Remote monitoring and upgrade(Requires optional WiFi stick)



## SPECIFICATION

Model	B51100
Module Type	LFP
Nominal Voltage [V]	51.2
Work Voltage Range [V]	44.8~57.6
Nominal Capacity [Ah]	100
Nominal Energy [KWh]	5.12
Recommended Charge/Discharge Current [A]	50
Max.Power Charge/Discharge Current [A]	75
Peak Power Charge/Discharge Current [A]	100(15s)
Charge Voltage (Vdc)	56~57.6
Communication port	CAN/ RS485/ RS232
Max.Dimension [mm]	550(L)*481(W)*140(H)
Weight [kg]	≈43
Discharge condition [°C]	-20~50
Charge condition [°C]	0~50
Max. Discharge Power [kW]	3.84
Enclosure Protection (IP)	IP20
Warranty	10 years
Calendar Life <sup>[1]</sup>	6000 Cycles
Certification & Safety Standard	TUV/CE/IEC 62619/UN38.3
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye More brands will be announced
Pros	Can be used in both off-grid and hybrid setups, compact design, floor or wall mount
Monitoring & Protection	Each system has intelligent BMS, and breaker embedded in system
Configuration	40 modules parallel at most

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% Dod



# Dyness Powerbox

## 【Powerbox】

Adopts LiFePO4 chemistry battery with safety performance and long life time, which offers you four capacities to meet your more requirements.

TUV Certified · CEC Accredited · IP65 Protection · Flexible Expansion



## SPECIFICATION

Model	Powerbox			
Battery Type	LiFePO4			
Battery Module	F-2.5 1 Module	F-5.0 2 Modules	F-7.5 3 Modules	F-10.0 4 Modules
Battery Capacity [Ah]	50	100	150	200
Nominal Battery Energy [kWh]	2.4	4.8	7.2	9.6
Max Output Power [kW]	2.4	4.8	4.8	4.8
Net Weight [Kg]	47	69	91	113
Dimension [H*W*D, mm]	928*555*210			
Working Voltage [V]	42~54			
Operating Temp. Range [°C]	-20~50			
Calendar Life [Cycles] <sup>[1]</sup>	6000			
Nominal Voltage [V]	48			
Protection Level	IP65			
Communication	CAN / RS485 / DRY CONTACT			
Certification & Safety Standard	TUV/CE/EN62619/IEC62040/UN38.3/CEC Accredited/UL1973/CEI-021			
Scalability [kWh]	Up to 4 units to parallel			
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye More brands will be announced			
Warranty	10 Years			
Warranty Document Supplied	Yes			
Color	White			
Alarms	Overcharge Overdischarge Overcurrent Overtemperature Short Circuit			
Pros	Can be used in both off-grid and hybrid setups, compact design, modular expansion			
Monitoring & Protection	Each module has BMS, breaker embedded in system			

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% DOD

## Features and advantages

- Compact Size & Light Weight
- High Power Output & Usable Energy Ratio
- Modular Design & Expandable System
- Safest Battery & Perfect Compatibility
- Natural cooling & Easy Installation
- Certifications Available



# Power Depot



## Features and advantages

- Safest LiFePO4 rechargeable battery
- Higher usable energy ratio, less self consumption
- 1/3 weight of equivalent capacity Lead-Acid battery
- Plug and Play, quick installation, up to 3 unit parallel
- Wide temperature range of -20~50°C
- Contains no toxic heavy metals or caustic materials



## SPECIFICATION

Model	PowerDepot	
Battery Type	LiFePO4	
Battery Module	H2.5	H5
Battery Capacity [Ah]	50	100
Nominal Battery Energy [kWh]	2.4	4.8
Max Output Power [kW]	2.4	4.8
Net Weight [Kg]	44	65
Dimension [H*W*D, mm]	574*228*600	
Working Voltage [V]	42~54	
Operating Temp. Range [°C]	-20~50	
Calendar Life [Cycles] <sup>[1]</sup>	6000	
Nominal Voltage [V]	48	
Protection Level	IP65	
Communication	CAN / RS485 / DRY CONTACT	
Certification & Safety Standard	TUV/CE/IEC 62619/UN38.3/CEI-021	
Scalability [kWh]	Up to 4 units to parallel	
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye More brands will be announced	
Warranty	10 Years	
Warranty Document Supplied	Yes	
Color	White	
Alarms	Overcharge Overdischarge Overcurrent Overtemperature Short Circuit	
Pros	Can be used in both off-grid and hybrid setups, compact design, modular expansion	
Monitoring & Protection	Each module has BMS, breaker embedded in system	

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% DOD



# Power Depot

H5B



## Features and advantages

- Safest LiFePO4 rechargeable battery
- Higher usable energy ratio, less self consumption
- 1/3 weight of equivalent capacity Lead-Acid battery
- Plug and Play, quick installation, up to 4 unit parallel
- Wide temperature range of -20~50°C
- Contains no toxic heavy metals or caustic materials
- OTA Function: Remote monitoring and upgrade(Requires optional WiFi stick)



## SPECIFICATION

Model	PowerDepot H5B
Battery Type	LiFePO4
Battery Capacity [Ah]	100
Nominal Voltage [V]	51.2
Nominal Battery Energy [kWh]	5.12
Max Output Power [kW]	3.84
Recommended Charge/Discharge Current[A]	50
Max. Charge/Discharge Current[A]	75
Net Weight [Kg]	65
Dimension [H*W*D, mm]	574*228*600
Working Voltage [V]	44.8~57.6
Operating Temp. Range [°C]	-20~50
Calendar Life [Cycles] <sup>[1]</sup>	6000
Protection Level	IP65
Communication	CAN/ RS485/ RS232
Certification & Safety Standard	CE / UN38.3
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye More brands will be announced
Scalability [kWh]	Up to 4 units to parallel
Warranty	10 Years
Warranty Document Supplied	Yes
Color	White
Alarms	Overcharge Overdischarge Overcurrent Overtemperature Short Circuit
Pros	Can be used in both off-grid and hybrid setups, compact design, floor or wall mount
Monitoring & Protection	Each system has intelligent BMS, and breaker embedded in system

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% DoD

# Dyness Powercube B4850

Dyness Powercube is tailor made for larger residential and light commercial.  
TUV Certified · CEC Accredited · IP65 Protection · Flexible Expansion



## Features and advantages

- Compact Size & Light Weight
- High Power Output & Usable Energy Ratio
- Modular Design & Expandable System
- Safest Battery & Perfect Compatibility
- Natural cooling & Easy Installation
- Certifications Available
- OTA Function: Remote monitoring and upgrade (Requires optional WiFi stick)



## SPECIFICATION

Model	Powercube				
Battery Type	LiFePO4				
Battery Module	5 Modules	6 Modules	7 Modules	8 Modules	9 Modules
Battery Capacity [Ah]	250	300	350	400	450
Nominal Battery Energy [kWh]	12	14.4	16.8	19.2	21.6
Working Voltage [V]	42~54				
Operating Temp. Range [°C]	-20~50				
Calendar Life [Cycles] <sup>[1]</sup>	6000				
Nominal Voltage [V]	48				
Protection Level	IP65				
Communication	CAN / RS485 / DRY CONTACT / RS232				
Certification & Safety Standard	TUV/CE/EN62619/IEC62040/UN38.3/CEC Accredited/UL1973/CEI-021				
Scalability [kWh]	40 modules parallel at most				
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye More brands will be announced				
Warranty	10 Years				
Warranty Document Supplied	Yes				
Color	White				
Alarms	Overcharge Overdischarge Overcurrent Overtemperature Short Circuit				
Pros	Can be used in both off-grid and hybrid setups, compact design, modular expansion				
Monitoring & Protection	Each module has BMS				

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% DOD



# Dyness Powercube B3

Dyness Powercube is tailor made for larger residential and light commercial.  
TUV Certified · CEC Accredited · IP65 Protection · Flexible Expansion



## SPECIFICATION

Model	Powercube				
Battery Type	LiFePO4				
Battery Module	5 Modules	6 Modules	7 Modules	8 Modules	9 Modules
Battery Capacity [Ah]	375	450	525	600	675
Nominal Battery Energy [kWh]	18	21.6	25.2	28.8	32.4
Working Voltage [V]	42~54				
Operating Temp. Range [°C]	-20~50				
Calendar Life [Cycles] <sup>[1]</sup>	6000				
Nominal Voltage [V]	48				
Protection Level	IP65				
Communication	CAN / RS485 / DRY CONTACT / RS232				
Certification & Safety Standard	TUV/CE/IEC 62619/UN38.3				
Scalability [kWh]	40 modules parallel at most				
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye More brands will be announced				
Warranty	10 Years				
Warranty Document Supplied	Yes				
Color	White				
Alarms	Overcharge Overdischarge Overcurrent Overtemperature Short Circuit				
Pros	Can be used in both off-grid and hybrid setups, compact design, modular expansion				
Monitoring & Protection	Each module has BMS				

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% DOD

## Features and advantages

- Compact Size & Light Weight
- High Power Output & Usable Energy Ratio
- Modular Design & Expandable System
- Safest Battery & Perfect Compatibility
- Natural cooling & Easy Installation
- Certifications Available
- OTA Function: Remote monitoring and upgrade (Requires optional WiFi stick)



# Dyness Tower

Safe and Reliable ▪ IP54 Protection ▪ Flexible Size ▪ Quick Installation



## SPECIFICATION

Model	Tower T7	Tower T10	Tower T14	Tower T17	Tower T21
Usable Energy	7.10KWh	10.66KWh	14.20KWh	17.76KWh	21.31KWh
Nominal Capacity	37Ah	37Ah	37Ah	37Ah	37Ah
Nominal Voltage	192V	288V	384V	480V	576V
Maximum Continuous Discharge Power <sup>[2]</sup>	4.26KW	6.39KW	8.52KW	10.65KW	12.78KW
Maximum Continuous Charge Power <sup>[2]</sup>	4.26KW	6.39KW	8.52KW	10.65KW	12.78KW
Net Weight	105Kg	146Kg	187Kg	228Kg	269Kg
Dimension[W*D*H]	700*504*380mm	900*504*380mm	1100*504*380mm	1300*504*380mm	1500*504*380mm
Protection Level	IP54	IP54	IP54	IP54	IP54
Calendar Life <sup>[1]</sup>	6000 Cycles	6000 Cycles	6000 Cycles	6000 Cycles	6000 Cycles
Charging Temperature Range	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C
Discharging Temperature Range	-10~50°C	-10~50°C	-10~50°C	-10~50°C	-10~50°C
Internal Battery Module	HV9637	HV9637	HV9637	HV9637	HV9637
Module Connection	series	series	series	series	series
Module Number	2	3	4	5	6
Communication	CAN	CAN	CAN	CAN	CAN
Warranty	10 Years	10 Years	10 Years	10 Years	10 Years
Compatible Inverter	Goodwe, Luxpower, more brands are under testing				
Certification	TUV/CE/IEC62619/IEC62040/UN38.3/CEC Accredited/UL1973				

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% Dod

[2] Maximum Continuous Discharge/Charge Power when communicate with inverter is 0.6C

## Features and advantages

- Maximum safety performance with LFP technologies
- Built-in aluminum heat sink, optional heating solutions
- Compact design with flexible size options
- IP54 protection for indoor and outdoor use
- Compatible with leading inverter brands
- Black start function available, quick installation

