OKEPS

OKEPS HOME PHOTOVOLTAIC ENERGY STORAGE PRODUCTS

CONTENTS

HOUSEHOLD PHOTOVOLTAIC ENERGY STORAGE POWER STATION

EFFICIENT INCOME

Intelligent energy storage management,
increasing charge and discharge capacity

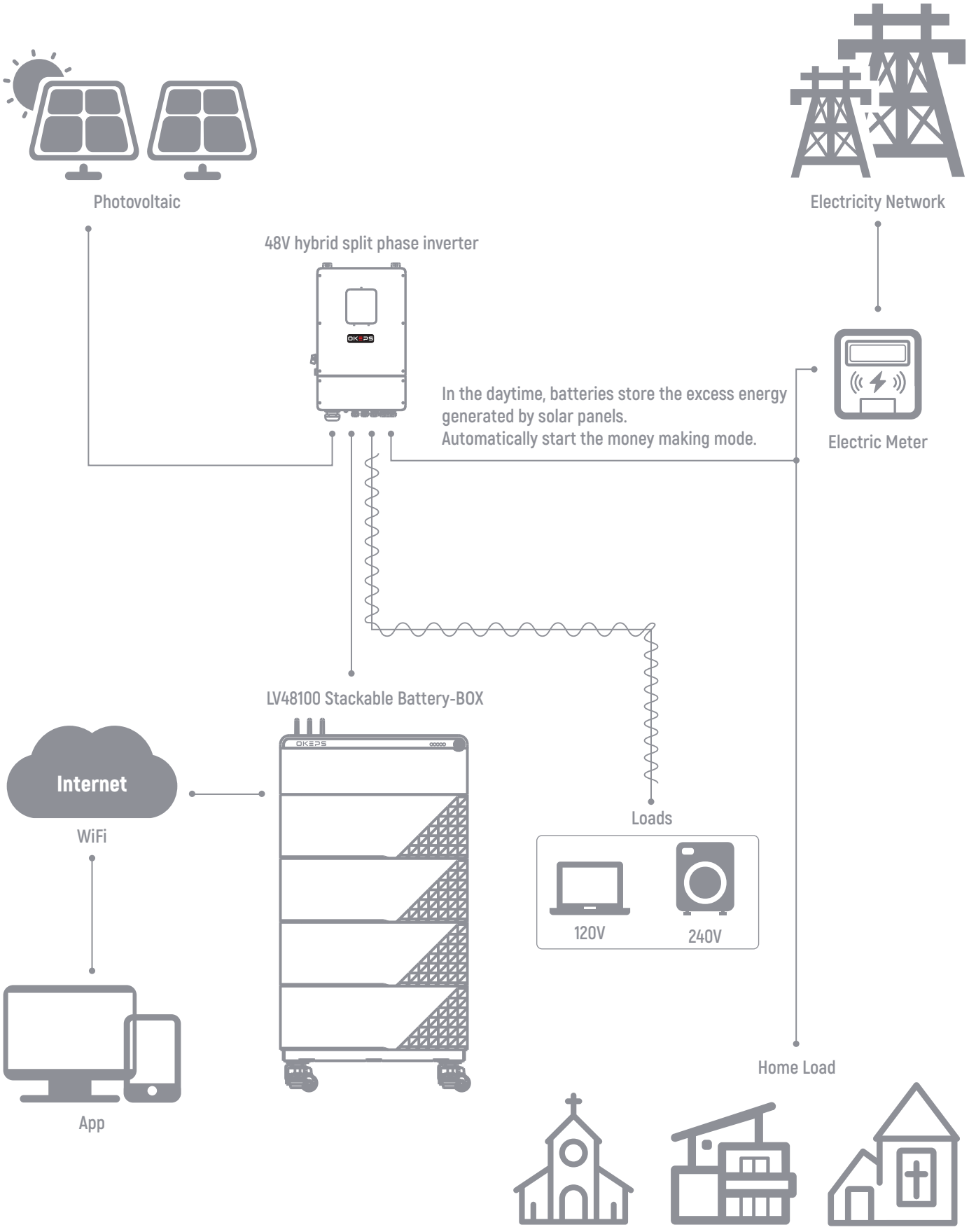
ACTIVE SAFETY

Intelligent protection,
reducing risks and ensuring personal safety

INTELLIGENT O&M

Natural heat dissipation design,
free on-site maintenance

HOUSEHOLD PHOTOVOLTAIC ENERGY STORAGE POWER STATION



LV48100 STACKABLE BATTERY BOX

BRIEF INTRODUCTION

LV48100 : Low voltage/ 48 V/100 AH.
· Scalable from 5.12 kWh to 81.92 kWh
· Maximum Flexibility for any Application with up to 16 Modules Connected in Parallel
· Compatible with Market Leading 1 and 3 Phase Inverters
· Cobalt Free Lithium Iron Phosphate (LFP) Battery: Maximum Safety, Life Cycle and Power
· Capable of High-Powered Emergency-ON Grid and Off-Grid Function
· Self-Consumption Optimization for Residential and Commercial Applications

LV48100 STACKABLE BATTERY BOX

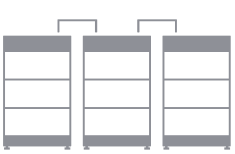
· 5.12kWh Module
· Modular Design Simplifies Transport andInstallation
OKEPS LV48100 Battery-Box is a lithium iron phosphate (LFP) battery pack for use with an external inverter.
A single LV48100 Battery-Box contains between 1 to 16 battery
modules LV48100 stacked in parallel and can reach 5.12 to 81.92 kWh
usable capacity in one tower: Battery-Box LV48100 (5.12kWh)

Connect up to 16 Battery-Box LV48100 in parallel for a maximum size of 81.92 kWh.
Ability to scale by adding LV 48100 modules or parallel towers of 1 to 16 modules later.

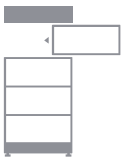
1*LV 48100 16 *LV 48100

FLEXIBLE, EFFICIENT, SIMPLE

Beautiful and easy
to install



5.12-81.92 kWh
Tailored Sizing for
Each Application



Extend Anytime
Easily Adapts to
New Requirements

High Power
Power for
Every Application

TECHNICAL PARAMETERS

LV 48100 STACKABLE BATTERY-BOX						
Battery Module	PACK (5.12KWH/51.2V/100AH) 90lb					
Number of Modules	1*LV48100	2*LV48100	3*LV48100	4*LV48100	5*LV48100	6*LV48100
Usable Energy[1]	5.12 kWh	10.24 kWh	15.36 kWh	20.48 kWh	25.6 kWh	30.72 kWh
Max Output Current[2]	65 A	130 A	195 A	250 A	250 A	250 A
Peak Output Current[2]	90 A, 5 s	180 A, 5 s	270 A, 5 s	360 A, 5 s	360 A, 5 s	360 A, 5 s
Dimensions(H/W/D)mm	522*587*410	723*587*410	923*587*410	1124*587*410	1324*587*410	1525*587*410
Nominal Voltage	51.2 V					
Operating Voltage	40-57.6 V					
Operating Temperature	-10 °C to +50°C					
Battery Cell Technology	Lithium Iron Phosphate (cobalt-free)					
Communication	CAN / RS485					
Enclosure Protection Rating	IP55					
Round-Trip Efficiency	≥95%					
Scalability [3]	Max. 64 Modules in Parallel (256 kWh)				Single Tower Only	
Certification	VDE2510-50 / IEC62619 / CE / CEC / UN38.3					
Applications	ON Grid / ON Grid + Backup / OFF Grid					
Warranty[4]	10 Years					
Compatible Inverters(PCS)	OKEPS LV Series Inverter					

[1] DC Usable Energy, Test conditions: 100% DOD, 0.2C charge & discharge at + 25 °C.
System Usable Energy may vary with different inverter brands
[2] Charge derating will occur between -10 °C and +5 °C
[3] Conditions apply. Refer to OKEPS LV48100 Battery Box Limited Warranty Letter.

OFF GRID / ON GRID 48V HYBRID SPLIT PHASE INVERTER

PRODUCT FEATURES:

Safe & reliable
- Passed UL 1741:2021, IEEE 1547.1, UL1699B, South Africa NRS097-2-1:2017 test certification;

Friendly & flexible
- Support multi-machine parallel connection, the maximum parallel connection can reach 8;
- Support multi-machine parallel mode sharing a battery pack; Single-machine load capacity 100A;

Economical & efficient
- Support parallel SOC equalization control and parallel current sharing control;
- Using split-phase topology and eliminating the transformers, to make the system efficiency higher;
- Support the diesel generator and the grid access at the same time;

TECHNICAL PARAMETERS

Technical specification	LV5KUS	LV6KUS	LV8KUS
Input (PV)			
Max. power (kW)	7.5	9	12
Max. DC voltage (V)		500	
MPPT voltage range (V)		120~500	
Max.Input current of single MPPT (A)		12	
MPPT tracker/strings		4/1	
AC output			
Rated output power (kVA)	5	6	8
Max. output current (A)	24	28.8	38.3
Ac output voltage (V)		120/240(split phase), 208(2/3 phase),230 (single phase)	
Frequency (Hz)		50/60	
PF		0.8lagging-0.8leading	
THDi		< 3%	
AC output topology		Split phase, 2/3 phase, single phase	
Battery			
Battery voltage range (V)		40~58	
Max. charging voltage (V)		58	
Max. charge/discharge current (A)	120/120	135/135	190/190
Battery type		lithium /Lead-acid	
Communication interface		CAN/RS485	
EPS output			
Rated power (kVA)	5	6	8
Rated output voltage (V)		120/240 (split phase), 208 (2/3 phase),230 (single phase)	
Rated output current (A)	24	28.8	38.3
Rated frequency (Hz)		50/60	
Automatic switching time (ms)		＜20	
THDu		< 2%	
Overload capacity		125%,60S/150%,1S	
General data			
Max. efficiency		≥98.2%	
North american efficiency		≥97.2%	
Ingress protection		IP65/NEMA 3R	
Noise emission (dB)	<25	<29	<29
Operation temperature		-25°C ~ 60°C	
Cooling		Natural	
Relative humidity		0 ~95% （non-condensing）	
Altitude		2,000m (>2,000 Derating)	
Dimensions W *D *H (mm)		430*220*710	
Weight (kg)		41	
Isolation transformer		No	
Self-consumption (W)		<3	
Display and communication			
Display		LCD, touch screen	
Interface:RS485/Wifi/4G/ CAN/DRM		Yes	
Safety standard		UL1741SA all options, UL1699B, CSA 22.2	
EMC		FCC Part 15, Class B	
On-grid		IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III,NRS	

ENERGY MANAGEMENT SYSTEM AND APP

BETTER EXPERIENCE

Full self-identifying access management system for system equipment

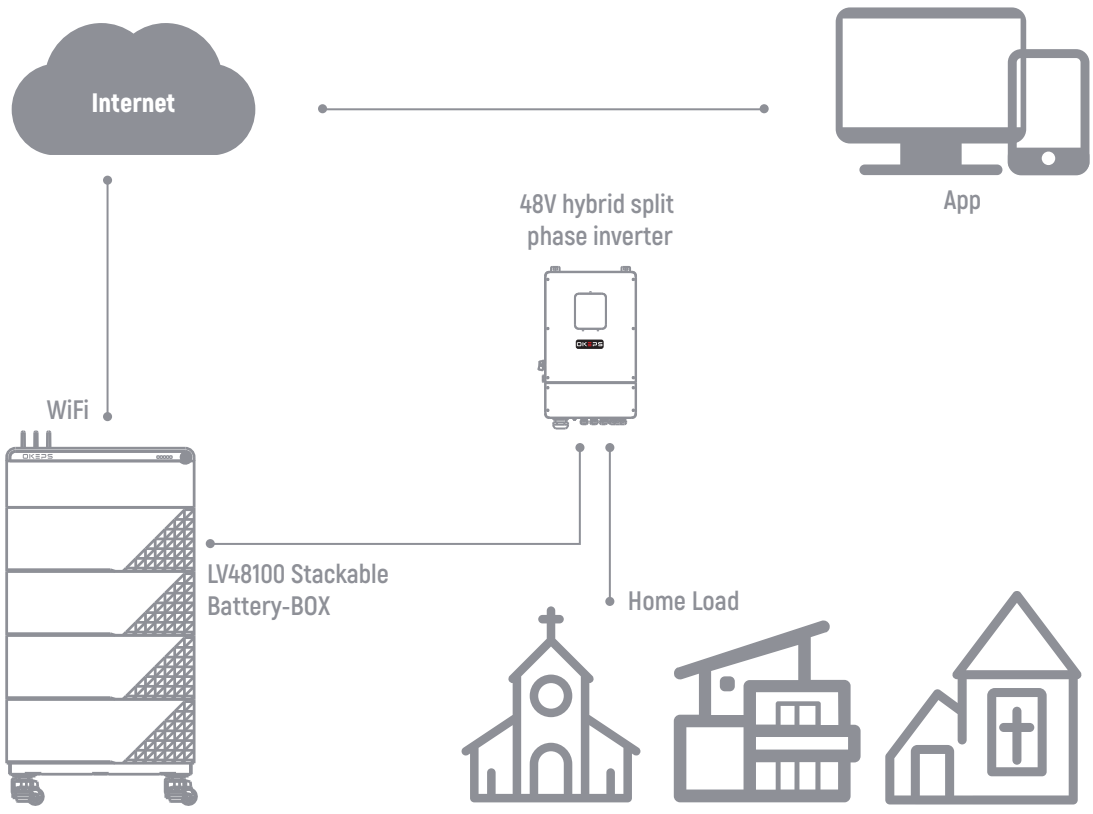
VISUALIZATION MANAGEMENT

Full real time historical data on equipment visualisation

INTELLIGENT O&M

One screen to manage site operations and status

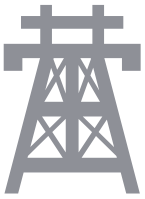
APPLICATION HINTS



BENEFITS

REDUCE ENERGY COSTS

Get the most out of free solar energy and avoid spiraling diesel generation costs or expensive grid charges.
At the same time, the excess electricity in the daytime can be connected to the grid to earn profits.



OFF GRID / ON GRID,GAIN GRID INDEPENDENCE

Stay prepared for power outages and
protect essential appliances against grid fluctuations.

LOWER CARBON EMISSIONS

Shrink your carbon footprint and help curtail air pollution.

INCREASE HOME VALUE

Raise the real estate value of your home with the addition of solar energy storage systems.

MANAGE WITH EASE

Monitor operation status and customize settings in real-time with your phone.

APPLICATION SCENARIOS

Real-time understanding of electricity consumption

Adjust the working hours of home appliances

Intelligent management of electricity consumption

APPLICATION SCENARIOS

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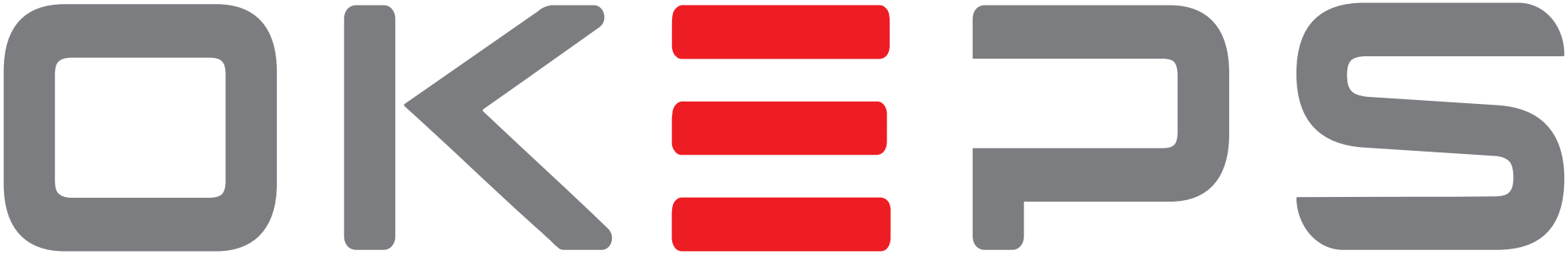
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