



HYBRID

Hybrid
Photovoltaic System Kits



HYBRID

3kW / 4kW / 5kW / 6kW / 8kW / 10kW

Product Description

Hybrid solar kits are unique in their ability to operate in either on-grid or off-grid conditions. These systems include advanced BMS technology that enables users to modify the charge/discharge rate & schedules of the battery storage unit as well as to manage power consumption and PV generation usage.



Adaptable and friendly

Operational in both on-grid and off-grid mode, Aurora kits are a valuable investment for those seeking an adaptable and user-friendly combination for solar and storage resources.



The best investment

With the decreasing cost of solar PV and Li-Ion batteries, and the increasing local incentives, solar hybrid systems have become an attractive investment opportunity for home and business owners.



Schedule your system

These systems have the ability to generate and store power at periods when electricity prices are at their highest and deliver it to the load on a scheduled time frame.



What's in the Box

- Solar modules
- Hybrid inverter/charger
- Custom roof mounting system
- Battery bank
- Battery storage unit
- PV, battery bank & grounding wiring harnesses
- DC and AC disconnects
- Wire management kit
- Grounding hardware
- Safety label kit

Stackable and Scalable

Our hybrid solar storage systems include Lithium Iron Phosphate (LiFePO₄) battery packs (48V) connected in high voltage DC configurations. The batteries offer 4000 cycles and up to 80% DOD (Depth of Discharge). Each battery is offered in a 2.4kWh block and can be stacked in different storage options.

Each system can be paralleled with one another up to 10 times to achieve up to 100kW's of PV power and almost unlimited battery back up power. Offered in both single and three phase configurations.

Common Applications

- Residential locations with unstable grids
- Locations that do not allow net metering
- People who want to take advantage of the utility rate changes
- Those who cannot afford to lose power or have power outages

Product Benefits

- Can operate in on-grid or off-grid mode
- Sell power back to the grid or store excess power for later use
- Use grid power or solar energy to charge the battery bank

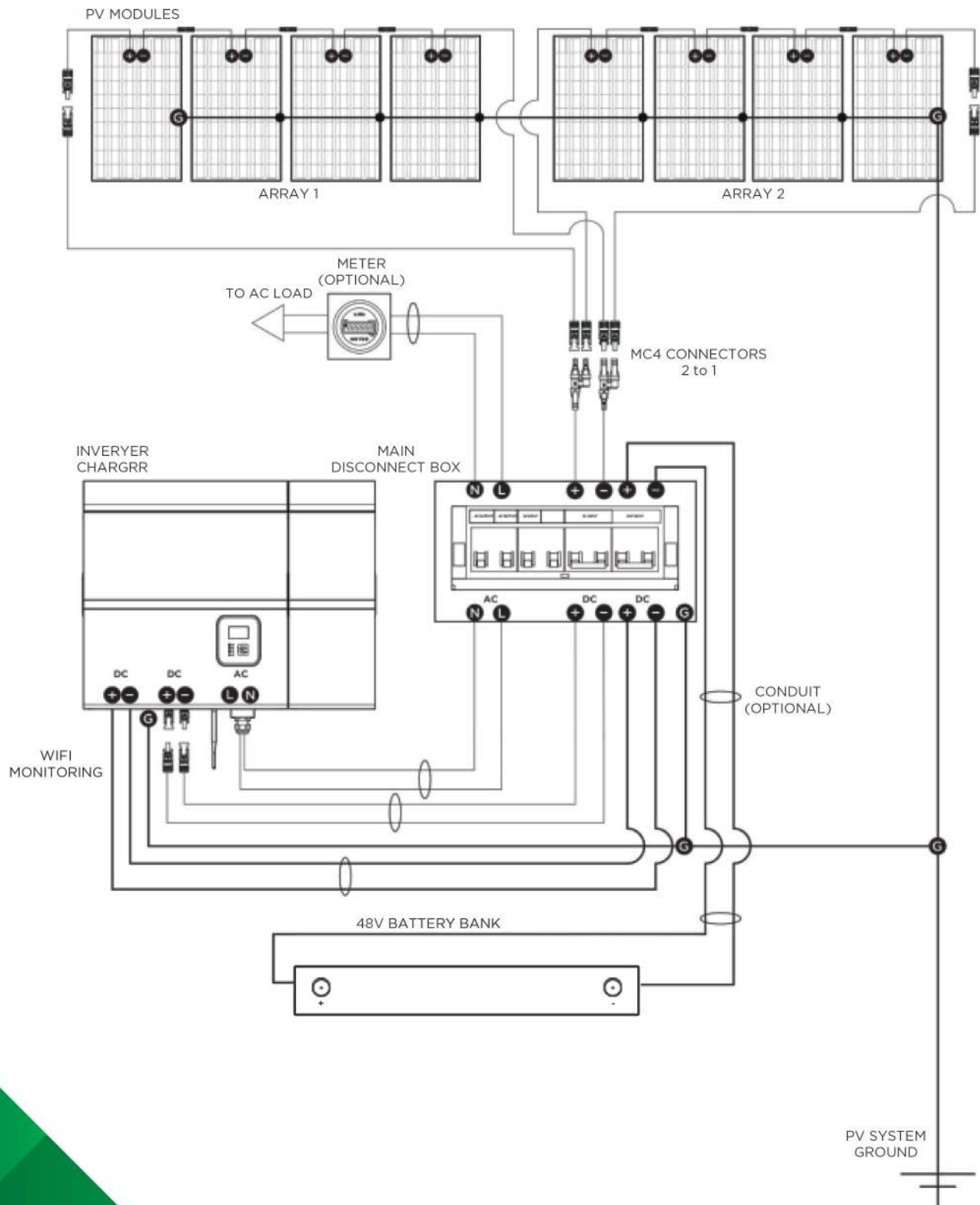


Hybrid On-Grid / Off-Grid Battery PV Kits

SYSTEM SIZE	3.6KW	5KW	4KW	5KW	6KW	8KW	10KW	12KW	
PRODUCT MODEL	MLS-3KW	MLS-5KW	MLS-4KW	MLS-5KW	MLS-6KW	MLS-8KW	MLS-10KW	MLS-12KW	
PV System size Nominal(Wp)	3320	4980	3735	4980	6225	8715	9960	12450	
PV MODULE SPECIFICATION (MONO)									
Panel Model	MLS-415M54P3								
Power(W)	415								
Vmp(V)	30.79								
Voc(V)	37.31								
Isc(A)	14								
Imp(A)	13.48								
Dimen sions(L x W x H)(mm)	1722x1134x30mm								
PV module weight(kg)	20.7								
Certifications	VDE CE CEC ETL INMETRO								
INVERTER SPECIFICATIONS (600VDC)									
Inverter Size(kw)	3.6	5	4	5	6	8	10	12	
Max DC Power(W)	7.36	10	8	10	12	16	20	22	
Max DC Voltage(V)	1000								
MPPT Voltage range(V)	90-580					360-850			
No.of MPPT'S	2		3						
Max AC Power to Grid (KVA)	7.36	10	8	10	12	16	20	22	
AC Nom.Voltage/Voltage Range(V)	220/230/240(180-270)					400/230;380/220			
AC Grid Freque ncy range(Hz)	50/60								
Number of phases	1	1	3			3			
Dimensions(L x W x H)(mm)	482*503*183					571*515*264			
Inverter weight(kg)	22.5					33			
Certifications	EN61000-6-2 EN61000-6-3 EN61000-3-2 VDE4105 EN50549 CEI0-21								
BATTERY SPECIFICATIONS									
Nomintated Capacity (Kwh)	10	10	10	10	15	20	20	25	
Useable Capacity(Kwh)	9.6	9.6	9.2	9.2	13.8	19.2	19.2	23	
Depth of Discharge (DoD)	95%								
Operating Voltage (V)	90-108V								
Max charging and discharging Current (A)	52.5								
No. of Cycle for lifespan	8000								
Communication	CAN/RS-485								
Safety regulations	IEC62619,IEC62040,UN38.3								
Protection Rating	IP65								
Warranty	10Years								
BOS									
#DC Isolator 1200V	2	3	3	3	3	3	3	3	
#AC Breaker	1								
*PV Wire Harmess.4mm(meters)	50	50	100	100	200	200	250	250	
*Ground Wire.4mm(meters)	50								
Battery Cables	2m								
* Extra wire is avaiable upon request									
SYSTEMLAYOUT									
# of Modules	8	12	9	12	15	21	24	30	
# of inverters	1								
PV Layout options	Landscape or Portrait								
PV Array Surface Area(m²)	14.67	25.67	22.00	25.67	29.34	36.67	40.34	45.35	
PV Array Weight(kg)	160	280	240	280	320	400	440	480	
PV Module Configuration	No. of PV Modules/String	4	6	3	4	5	7	10	
	Total Strings	2	2	3	3	3	3	3	
	String Voc	149.2	223.8	111.9	149.2	186.5	261.1	298.4	373.1
	String Vmp	123.16	184.74	92.37	123.16	153.95	215.53	246.32	307.9
	String Imp	13.48							
PRODUCTION ESTIMATES(KWH)									
*Projected yearly outputat 1100GHI/year	2805	4908.75	4207.5	4908.75	5610	7480	9350	11687.5	
*Projected yearly outputat 1460GHI/year	3723	6515.25	5584.5	6515.25	7446	9928	12410	15512.5	
*Projected yearly outputat 1825GHI/year	4653.75	8144.0625	6980.625	8144.0625	9307.5	12410	15512.5	19390.6	
* Based on 0.85% system deraling(formula=DC Power x peak sunshine hour/year x derate factor)(GHI=Global Horizotall radiance)									
SYSTEM OPTIONS									
Wifi Monitor	Wifi or GPRS								
PV System Color	Siliver or Full Black								
Mounting System Types	Metal Roof Asppt Shingle,Tile roof,Flat Concrete								

Hybrid Exanple Layout (3kW)

Hybrid Exanple Layout (3kW)





The all-in-one Box Solution

The difference is clear, get better results with our all in a box packaging solutions. Shinson's heavy duty ISPM15 compliant care design not only protects the contents during international shipping but also ensures that the solar kits arrive to their destination site undamaged and ready for installation.

Shinson's BOS toolboxes are included in all our solar kits and designed with the installer in mind. With years of installation experience, we understand the benefits of having a safe and well organized jobsite.





Packaging Specs

Designed to be warehouse friendly for distribution centers and local logistics companies, our kits are easily stacked, inventoried, and consolidated.

3kW

1.8 x 0.8 x 1
1 kit per pallet

20 kits per 20'
40 kits per 40'



4kW

1.8 x 0.9 x 1
1 kit per pallet

12 kits per 20'
24 kits per 40'



5kW

1.8 x 1 x 1
1 kit per pallet

12 kits per 20'
24 kits per 40'



6kW

1.8 x 1 x 1
1 kit per pallet

12 kits per 20'
24 kits per 40'



8kW

1.8 x 1 x 1
2 pallets per kit

6 kits per 20'
12 kits per 40'



10kW

1.8 x 1 x 1
2 pallets per kit

6 kits per 20'
12 kits per 40'

