

THUNDERVOLT  POWER



POWERCUBE™

Datasheets



OFF-GRID

Off-Grid
Photovoltaic System Kits



OFF-GRID

2kW / 3kW / 4kW / 5kW

Product Description



Off Grid Solar Kits are designed for easy installation and low maintenance. Off Grid solar systems are noiseless, produce zero emissions, and offer grid independence, unlike standard On-Grid PV Systems which will not provide electricity to your house during a power outage due to safety regulations.



Full Independence

Off-Grid systems are independent of the standard utility grid, and can typically deliver the equivalent expectations of the traditional grid.



Increase your value

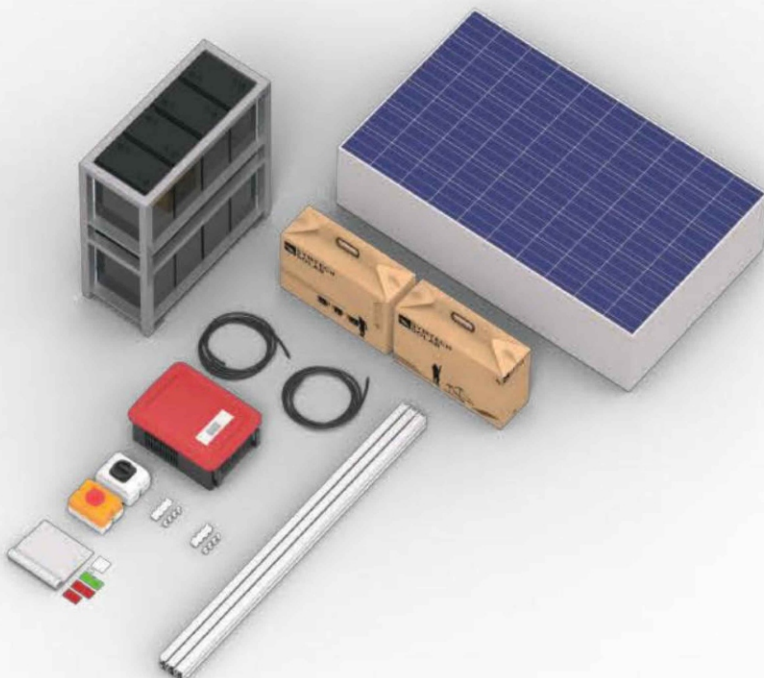
Increase the value of your home and business by giving them total grid independence and stop relying on the grid with this added value.



Light up your world

Bring power to areas with limited or no access to electricity, whether it's a remote cabin, your business, or your residence, we have a solution that can fit any installation requirements.

What's in the Box



- Solar modules
- Off-grid 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
- Single and three-line electrical and mechanical schematics



Total Electrical Independence

With a Lithium Battery backbone and transformer based inverter, the off-grid kits require no grid connection and are a great option for areas with limited or no power access. Whether you will be using an off-grid solar system for your remote cabin, your place of business or your full-time residence, we have an off-grid solution that can fit almost any installation requirement. Our off-grid kits have the capability to be expanded if future energy storage is required.

Product Benefits

- Become completely energy independent
- Reduce the burning of fossil fuels for a healthier environment
- Eliminate the problems of grid blackouts

Common Applications

- Installation sites where bringing in the electricity from the grid is too expensive
- Locations where liquid fuel costs are too high or difficult to maintain
- Those looking to be completely independent from the grid
- Those who cannot afford to lose power or have power outages

Hybrid On-Grid / Off-Grid Battery PV Kits

SYSTEM SIZE	2KW	3KW	4KW	5KW
PRODUCT MODEL	PCO-2KW	PCO-3KW	PCO-4KW	PCO-5KW
PV System size Nominal(Wp)	2250W	3000W	4500W	5250W

PV MODULE SPECIFICATION (MONO)

Panel Model	OP375M60-P2
Power(W)	375
Vmp(V)	34.4
Voc(V)	41.6
Isc(A)	11.45
Imp(A)	10.89
Dimen sions(L x W x H)(mm)	1763x1040x30mm
PV module weight(kg)	20
Certifications	VDE CE CEC ETL INMETRO

INVERTER SPECIFICATIONS (600VDC)

Inverter Size(kw)	2	3	4	5
Max DC Power(W)	2000	3000	4000	5000
Max DC Voltage(V)	60-150			
MPPT Voltage range(V)	220VAC±5%,230VAC(-10&~+5%)		220VAC±3%,230VAC(-7&~+3%)	
No.of MPPT'S	1			
Max AC Power(VA)	1600	2400	4000	5000
Max Output Current(A)	30	60	80	100
AC Nom.Voltage/Voltage Range(V)	170~270			
AC Grid Freque ncy range(Hz)	50/60			
Number of phases	1			
Dimensions(L x W x H)(mm)	444*300*126		614*315*178	
Inverter weight(kg)	30	60	80	100
Certifications	EN61000-6-2 EN61000-6-3 EN61000-3-2 VDE4105 EN50549 CEI0-21			

12/240VUL invertersalsoavailable upon request

BOS

#DC Isolator 1200V	1	1	1	1
#AC Isolator	1	1	1	1
#AC Breaker	1	1	1	1
*PV Wire Harmess.4mm(meters)	20	30	40	50
*Ground Wire.4mm(meters)	N/A			
Battery Cables	YES			

* Extra wire is available upon request

SYSTEMLAYOUT

# of Modules	6	8	12	14
# of inverters	1			
PV Layout options	Landscape or Portrait			
PV Array Surface Area(m2)	11.00	14.67	22.00	25.67
PV Array Weight(kg)	120	160	240	280
PV Module Configuration 1000VDC	No.of PV Modules/String	12	7	8
	Total Strings	1	2	2
	String Voc	249.6	332.8	499.2
	String Vmp	206.4	275.2	412.8
	String Imp	10.89		

PRODUCTION ESTIMATES(KWh)

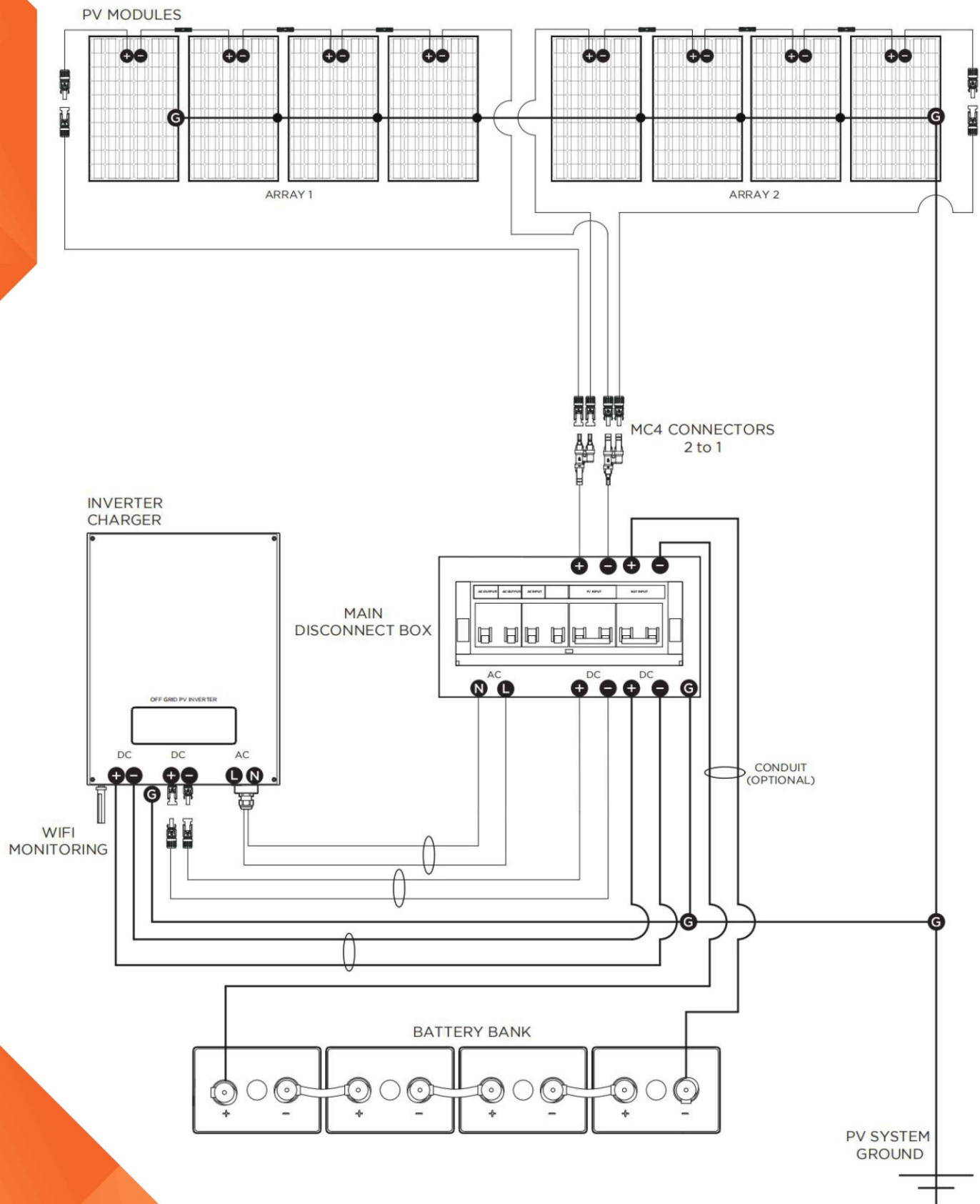
*Projectedyearly outputat 1100GHI/year	2103.75	2805.00	4207.50	4908.75
*Projectedyearly outputat 1460GHI/year	2792.25	3723.00	5584.50	6515.25
*Projectedyearly outputat 1825GHI/year	3490.31	4653.75	6980.63	8144.06

* Based on 0.85% system derating(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 Aspht Shingle,Tile roof,Flat Concrete
Battery Bank	Lithium Iron

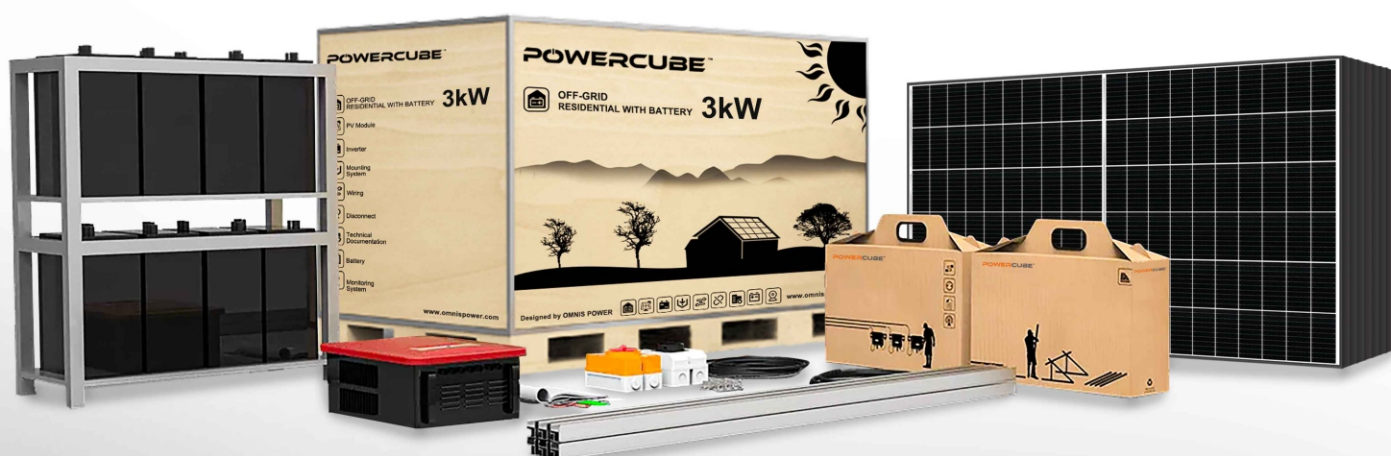
Off-Grid Example Layout (3kW)



POWERCUBE
3kW

The all-in-one Box Solution

The difference is clear, get better results with our all in a box packaging solution. Our innovative 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. Our BOS toolboxes are included in all our solar kits and designed with the installer in mind.



Packaging Specs

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

1.5kW

1.8 x 0.3 x 1
1 kit per pallet

52 kits per 20'
104 kits per 40'



2kW

1.8 x 0.45 x 1
1 kit per pallet

32 kits per 20'
64 kits per 40'



3kW

1.8 x 0.6 x 1
2 pallets per kit

13 kits per 20'
26 kits per 40'



4kW

1.8 x 0.75 x 1
2 pallets per kit

10 kits per 20'
20 kits per 40'

