

# CNS110 OFF-GRID SOLAR INVERTER

3.5KW/5.5KW



## MPPT

Pure sine wave MPPT solar inverter  
Built-in 100A MPPT solar charger



## Battery

Battery equalization function extends lifecycle  
Reserved COM port RS485/CAN for BMS



## Off-Grid

CNS110 series is suitable for off-grid applications



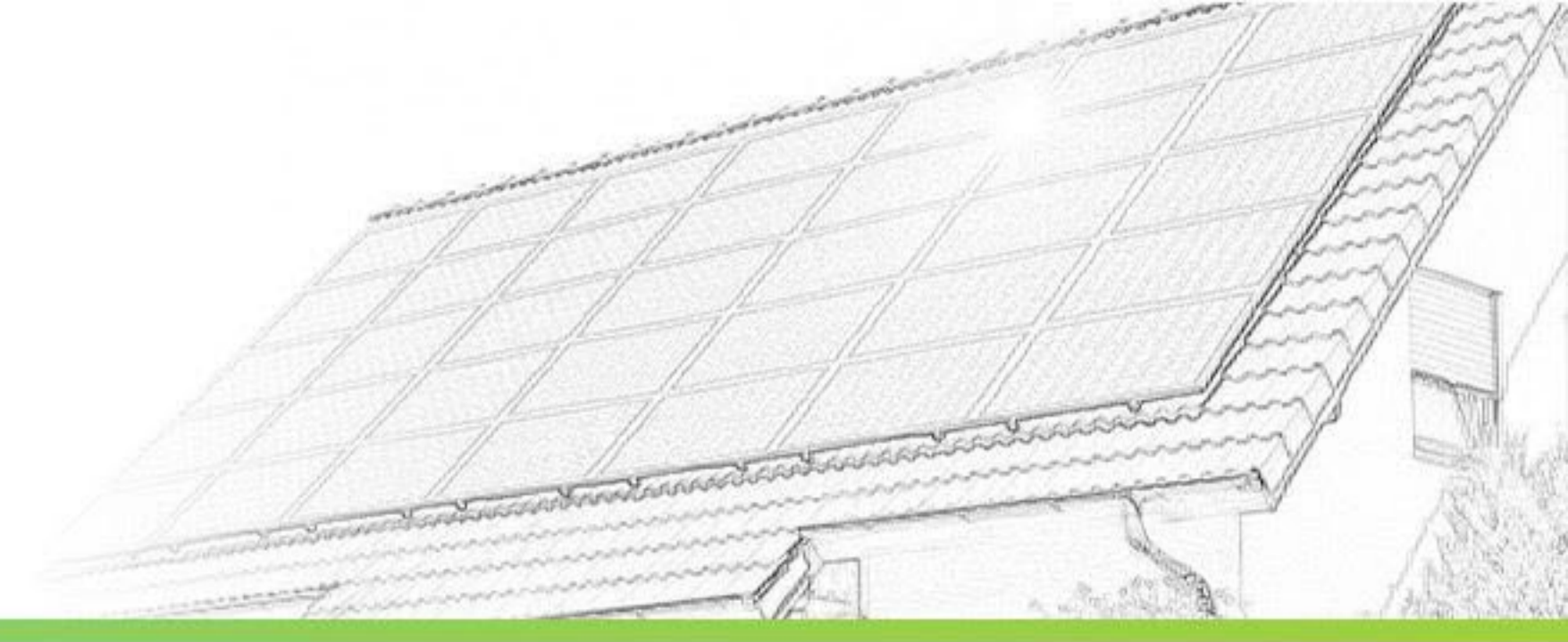
## Easy Access

Easy access  
Equalization function





# PRODUCT APPLICATIONS



## ■ SCENARIOS

Mainly used in household solar power generation, used to drive household small power load of electrical appliances.



Farm



Family



Outdoors



Villa



Comsat Station



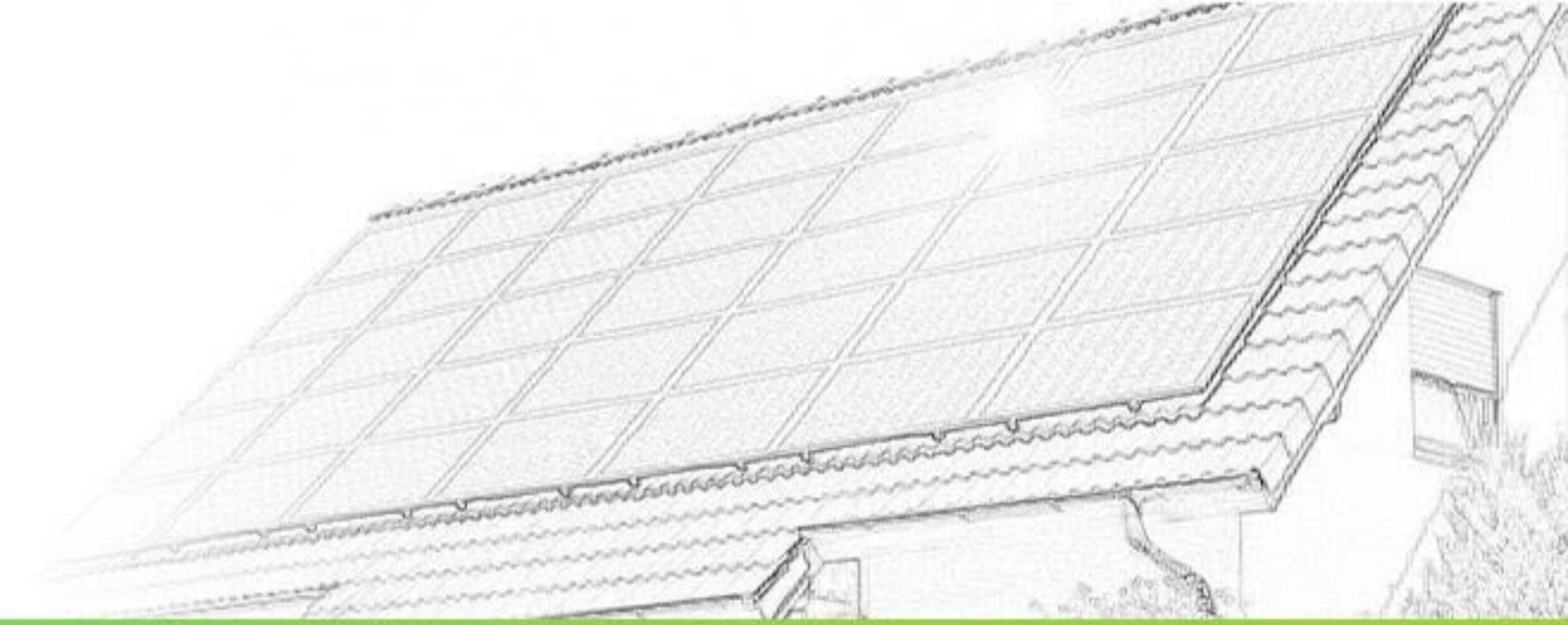
Grassland



## ■ PERFORMANCE AND FUNCTIONALITY

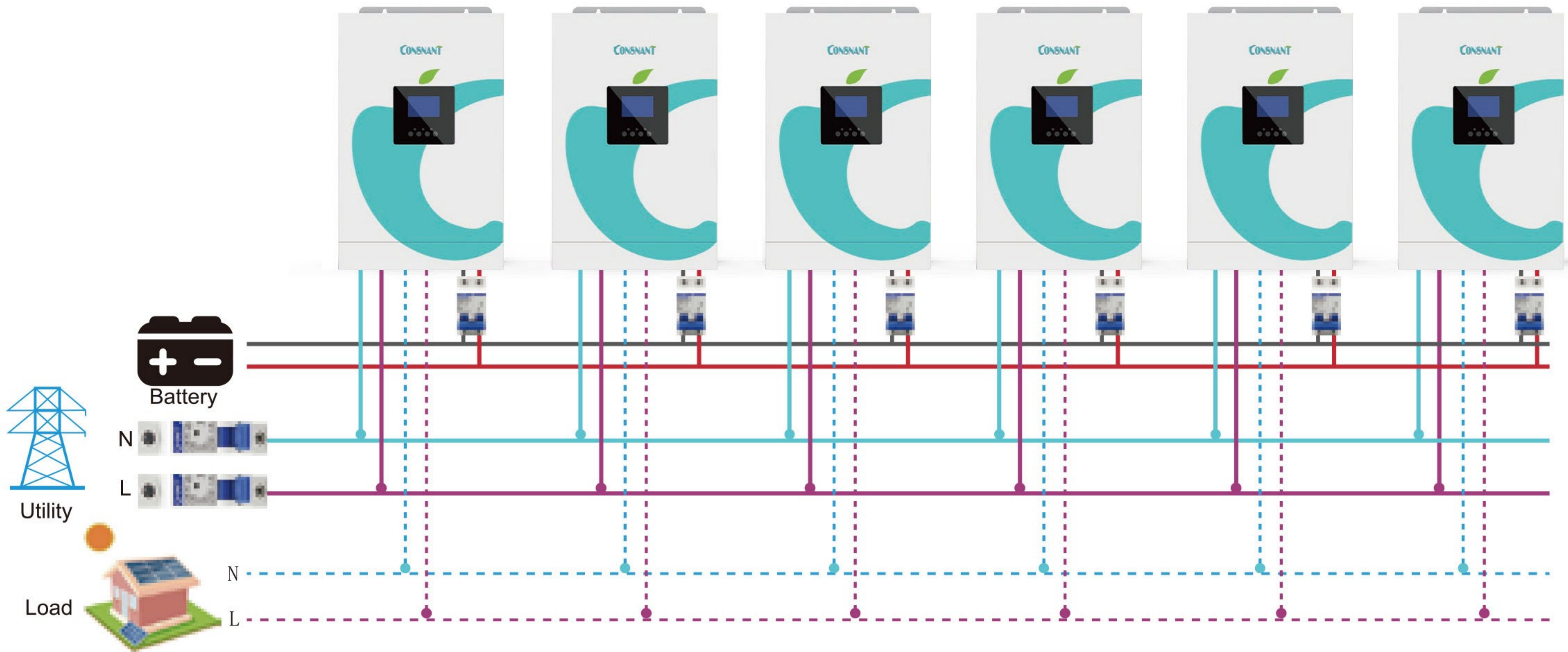
- Pure Sine Wave
- Integrated MPPT solar charger and battery charger
- Combined solar power, AC utility and battery to supply continuous power
- Output power factor 1
- Smart LCD setting (working priority mode/charge voltage/charge current ...)
- Up to 6 units can be paralleled
- Wide PV input voltage range (120-500VDC)
- Built-in 100A MPPT solar charger
- It can work normally without a battery
- Support lead-acid battery and lithium battery
- Battery balancing feature optimizes battery performance and extends life
- Complete short circuit protection, overvoltage and undervoltage protection, overload protection, reverse irrigation protection, etc.
- Cold start function
- Intelligent adjustable speed fan for efficient heat dissipation and extending system life
- Built-in dust screen for use in harsh environments
- Wifi remote monitoring (optional)



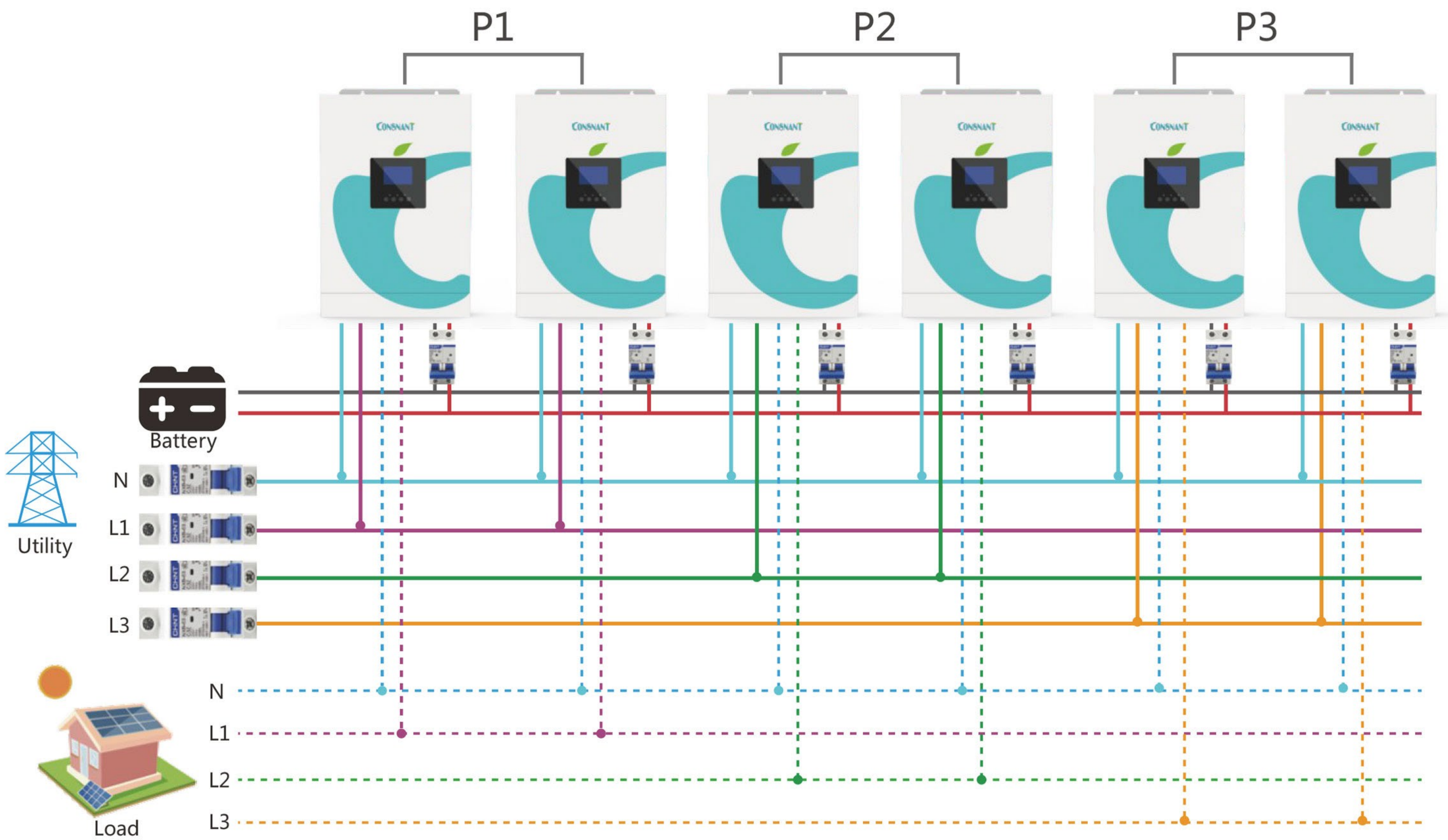


# PARALLEL FUNCTION

- Single phase output up to 33KW using 6 units

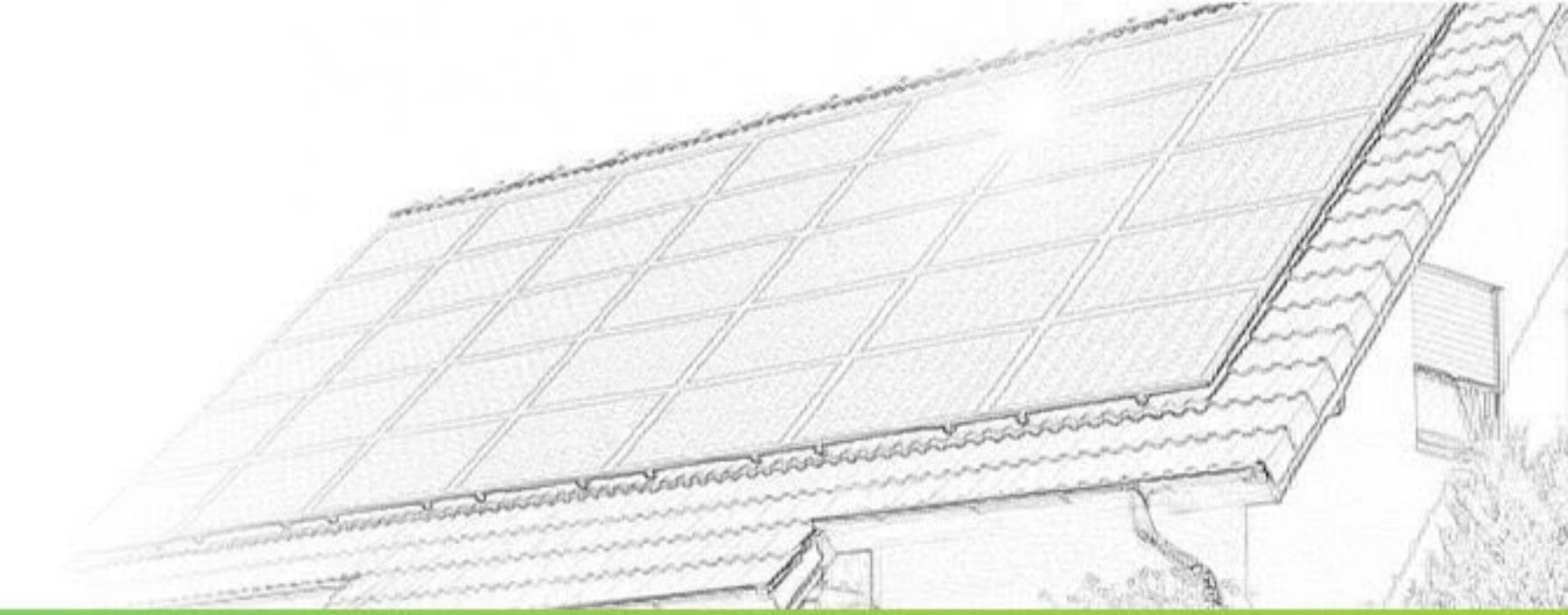


- Three phase output using either 3units (16.5KW) or max 6units (33KW)



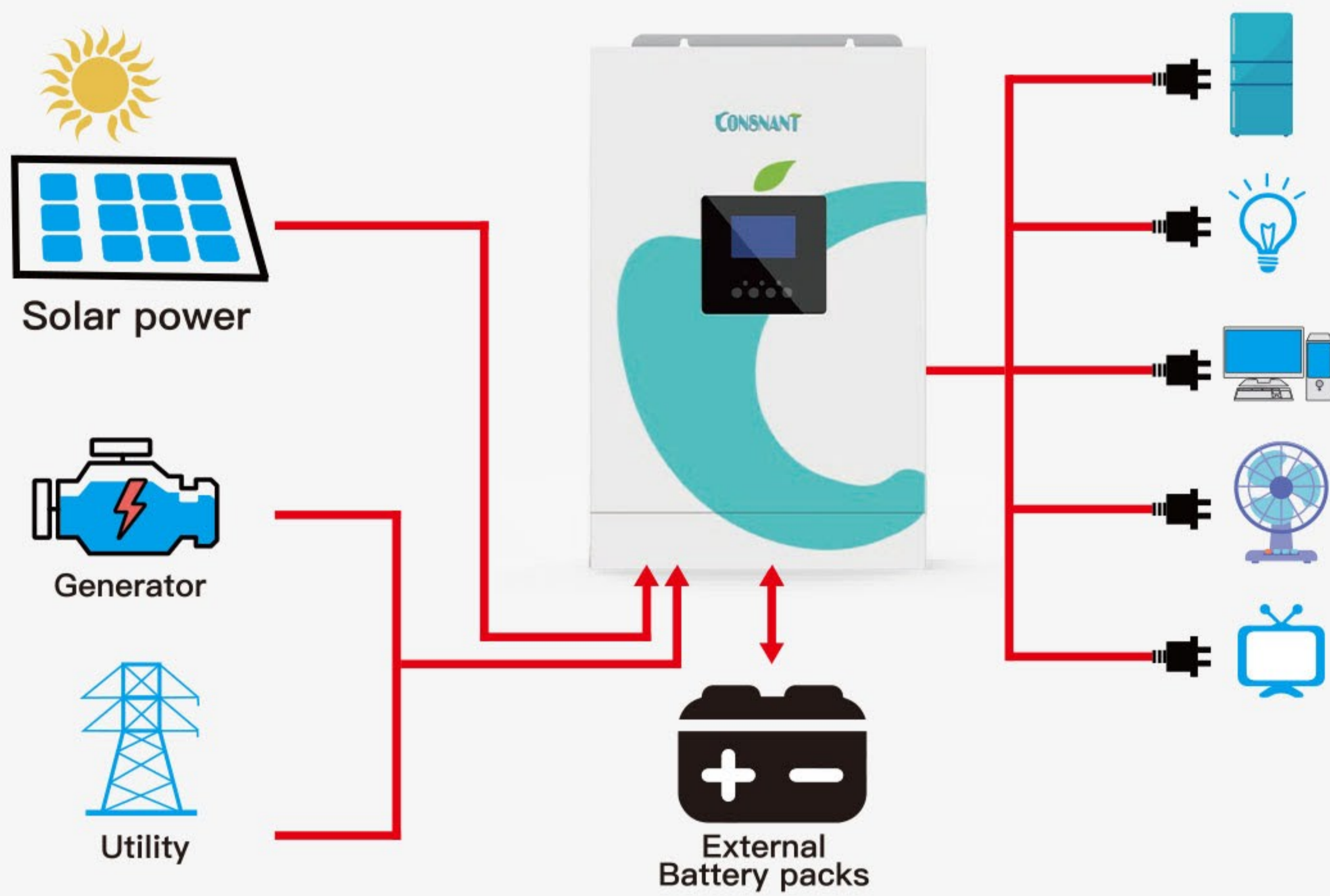


# SYSTEM DIAGRAM

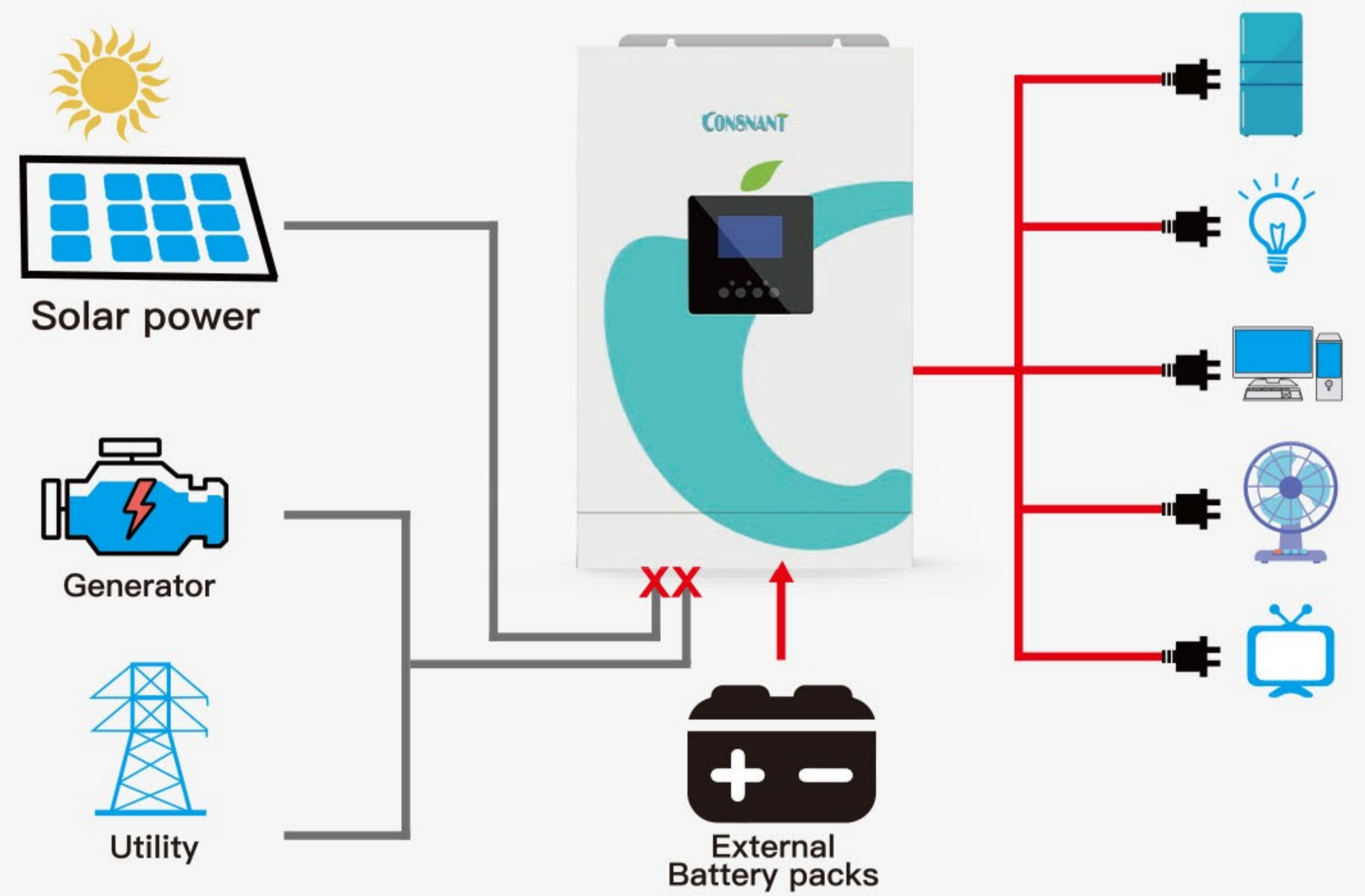


## OPERATION WITH BATTERY CONNECTED

1 Solar Power and AC Power available

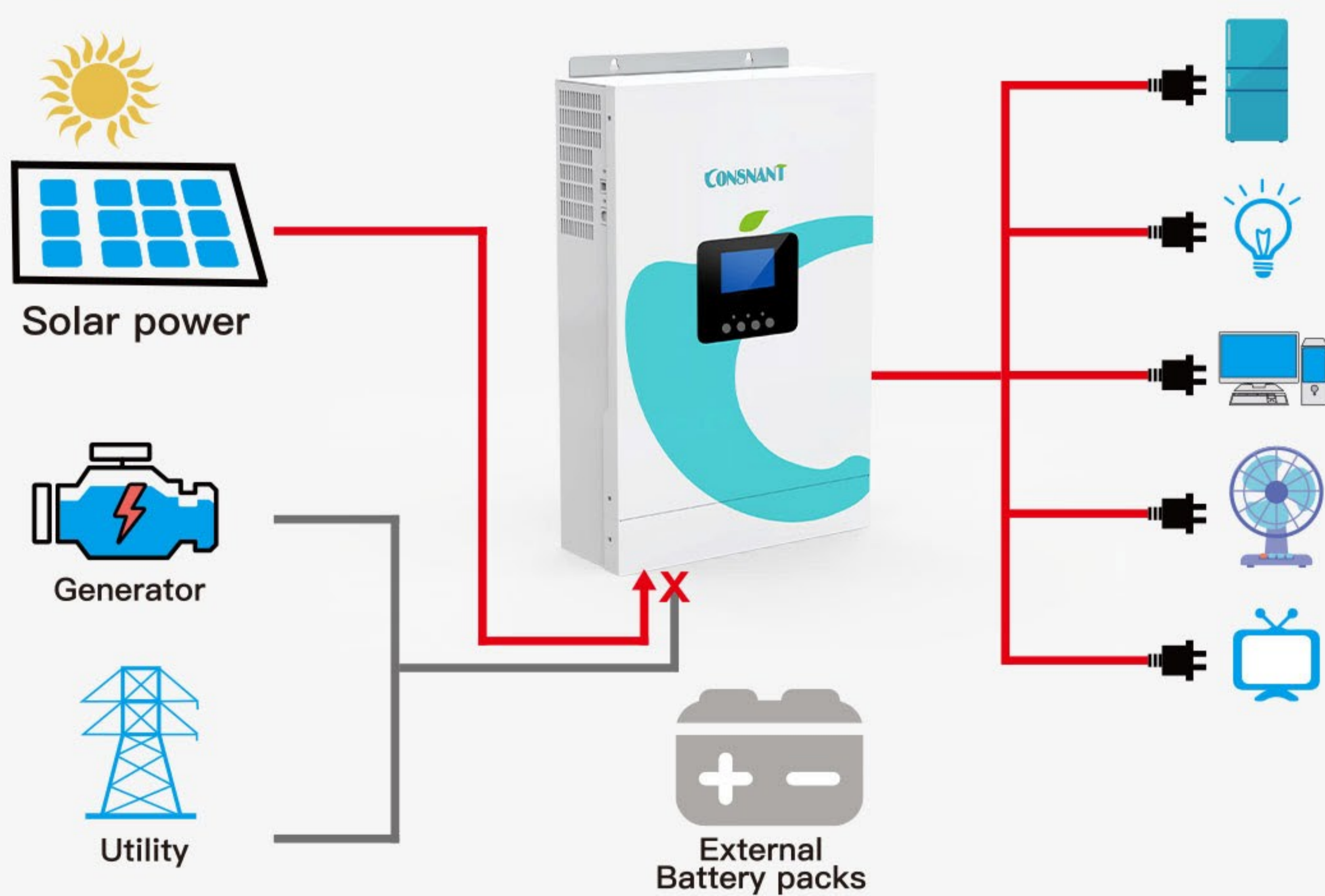


2 Solar Power and AC Power not available

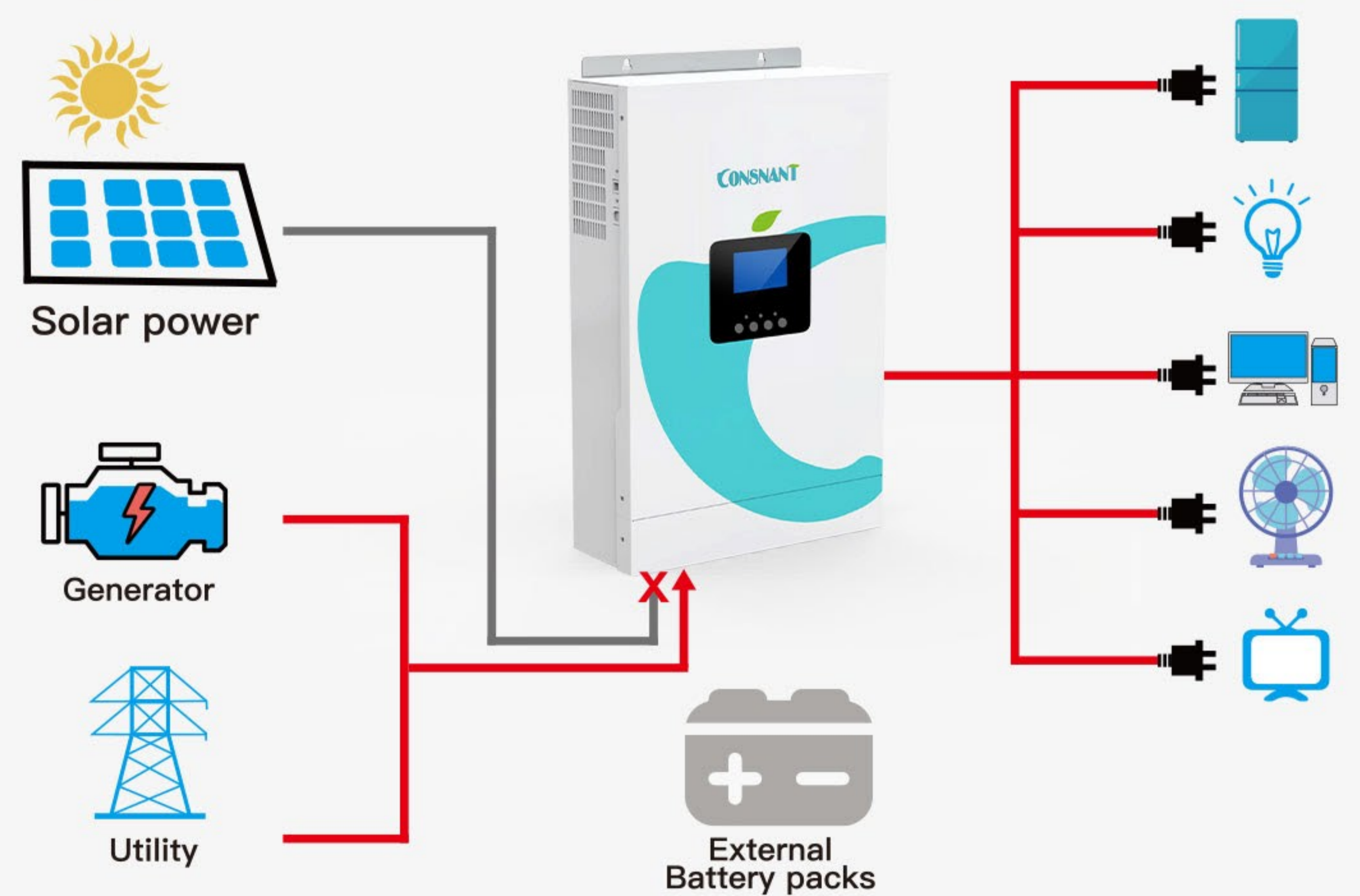


## OPERATION WITHOUT BATTERY CONNECTED

3 Solar Power available

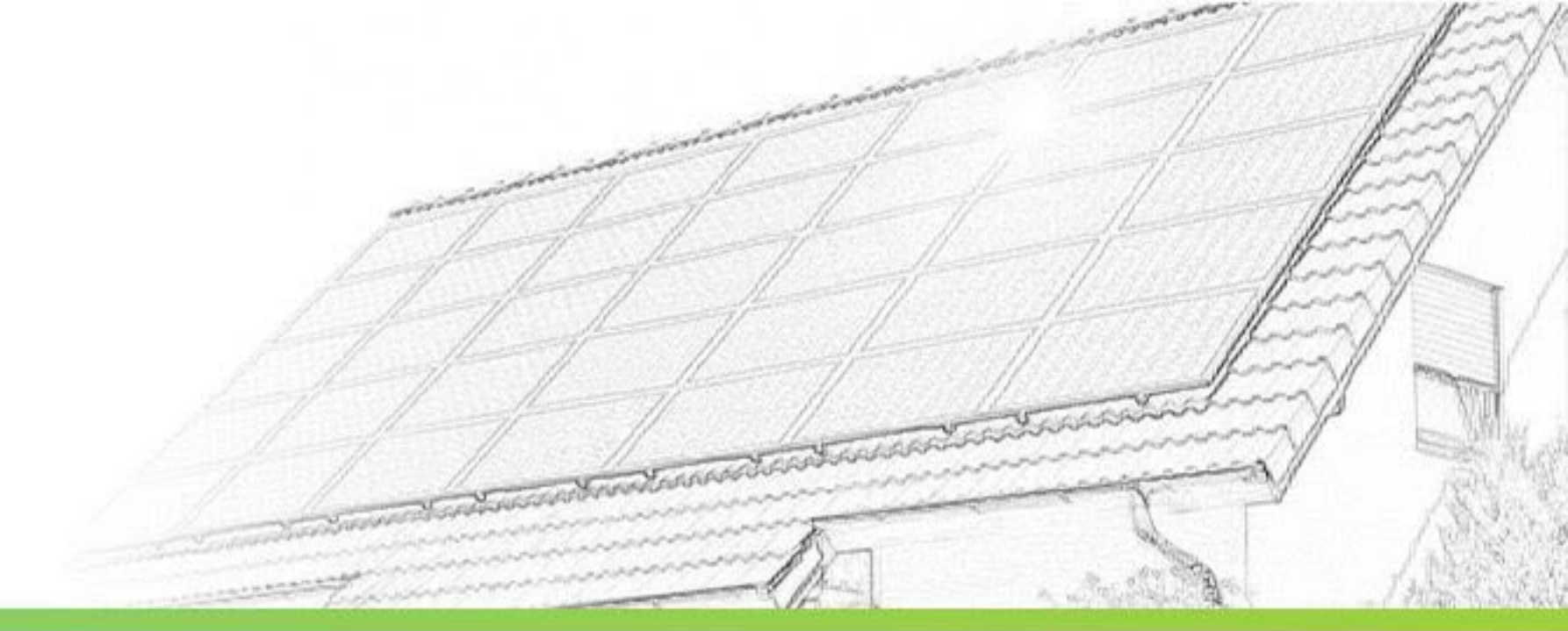


4 AC Power available





# PRODUCT PARAMETERS



Model	CNS110 3500-24	CNS110 5500-48
Rated Power	3500VA / 3500W	5500VA / 5500W
<b>Input</b>		
Voltage	230VAC	
Voltage Range	170-280VAC (Suitable for personal computers) 90-280VAC (Suitable for household appliances)	
Frequency Range	50Hz/60Hz (Automatic adaptation)	
<b>Output</b>		
Grid Voltage Regulation (Battery Mode)	230VAC±5%	
Surge Power	7000VA	11000VA
Peak Efficiency	>93.5%	
Switch Time	10ms (For Personal Computers); 20ms (For Home Appliances)	
Waveform	Pure Sine Wave	
<b>Battery</b>		
Battery Type	Lead Acid + Lithium Battery	
Battery Voltage	24VDC	48VDC
Float Charge Voltage	27VDC	54VDC
Overcharge Protection	33VDC	63VDC
Charging Curve	Three- Stage	
Lithium Battery Charging Strategy	Adaptive to lithium battery	
<b>PV Charge &amp; AC Charge</b>		
PV Maximun Open Circuit Voltage	500VDC	
PV Maximun Power	3500W	5500W
Maximum AC Charge Current	80A	
MPPT Operating Voltage Range	120VDC0-450VDC	
Maximum PV Charge Current	80A	
<b>Physical Properties</b>		
Size (mm)	300*110*462	
Net Weight (kg)	8.4	9.7
Communication Interface	RS232/RS485/Dry contact, WiFi (optional)	
<b>Environment</b>		
Humidity	5% to 95% relative humidity (non-condensing)	
Operating Temperature	-10°C - 50°C	
Storage Temperature	-15°C - 60°C	

