

# CNS110 OFF-GRID SOLAR INVERTER



## 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

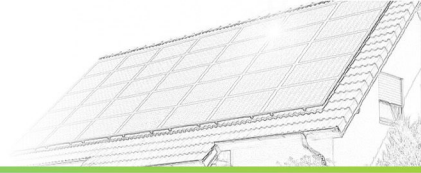
Easy access  
Equalization function



## ■ 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)

# PRODUCT APPLICATIONS



## SCENARIOS

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



Farm



Family



Outdoors



Villa



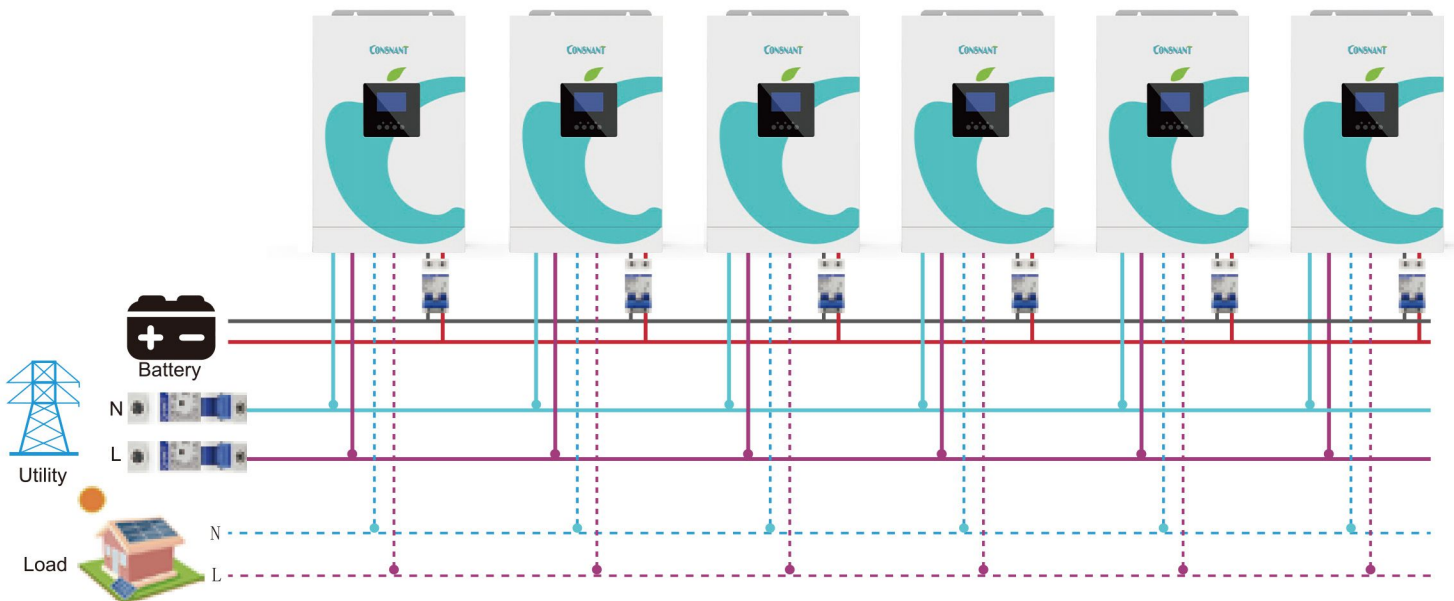
COMSAT Station



Grassland



## Single phase output up to 33KW using 6 units

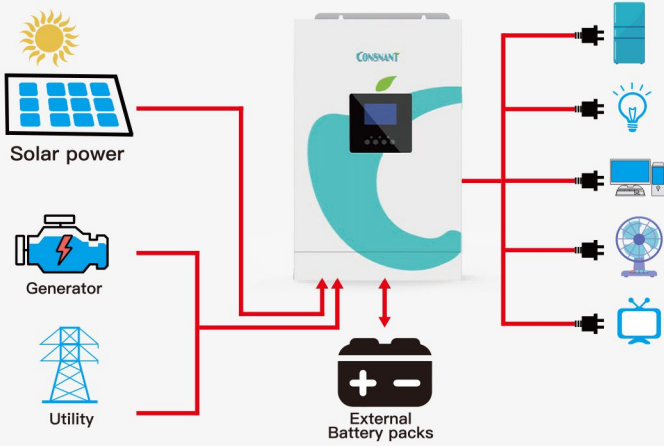




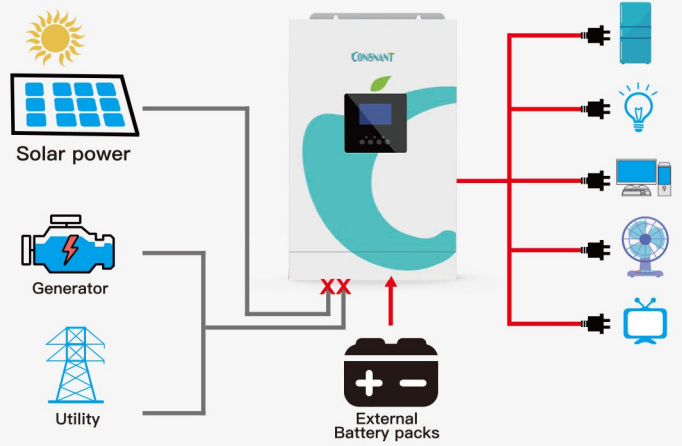
# SYSTEM DIAGRAM

## ■ OPERATION WITH BATTERY CONNECTED

1 Solar Power and AC Power available

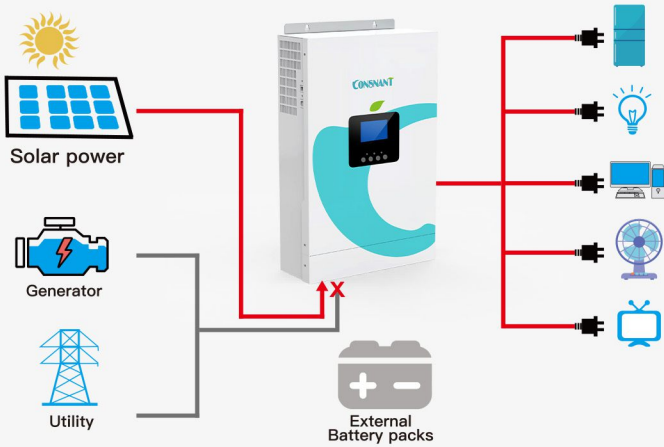


2 Solar Power and AC Power not available

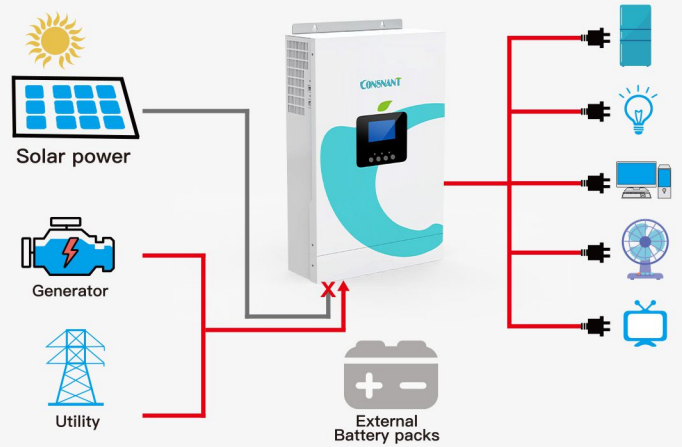


## ■ OPERATION WITHOUT BATTERY CONNECTED

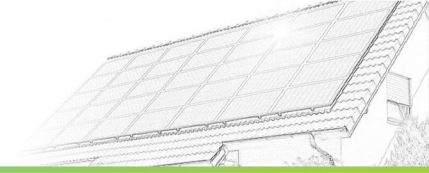
3 Solar Power available



4 AC Power available



# PRODUCT PARAMETERS



| Model                                  | CNS110 3500-24  | CNS110 5500-48 |
|--|---|----------------|
| Rated power                            | 3500VA/3500W  | 5500VA/5500W   |
| Input                                  |   |                |
| Voltage                                | 230VAC  |                |
| Voltage range                          | 170-280VAC (Suitable for personal computers)<br>90-280VAC (Suitable for household appliances) |                |
| Frequency range                        | 50Hz/60Hz (Automatic adaptation)  |                |
| Output                                 |   |                |
| Grid voltage regulation (battery mode) | 230VAC±5%   |                |
| Surge power                            | 7000VA  | 11000VA        |
| Peak efficiency                        | >93.6%  |                |
| Switch time                            | 10ms  |                |
| Waveform                               | Pure sine wave  |                |
| Battery                                |   |                |
| Battery voltage                        | 24VDC   | 48VDC          |
| Float charge voltage                   | 27VDC   | 54VDC          |
| Overcharge protection                  | 33VDC   | 63VDC          |
| PV Charge & AC Charge                  |   |                |
| PV maximum open circuit voltage        | 500VDC  | 500VDC         |
| PV maximum power                       | 5000W   | 6000W          |
| Maximum AC charge current              | 60A   | 60A            |
| MPPT operating voltage range           | 120VDC-450VDC   | 120VDC-450VDC  |
| Maximum PV charge current              | 100A  | 100A           |
| Physical Properties                    |   |                |
| Size (mm)                              | 300*110*462   |                |
| Net weight (kg)                        | 8.4   | 9.7            |
| Communication interface                | RS232/RS485/Dry contact, WiFi (optional)  |                |
| Environment                            |   |                |
| Humidity                               | 5% to 95% relative humidity (non-condensing)  |                |
| Operating temperature                  | -10°C - 50°C  |                |
| Storage temperature                    | -15°C - 60°C  |                |

