

Growatt PCS50

Bidirectional Battery Charger/Inverter



Growatt PCS50 battery inverter is designed for large volume storage system to

1. Firm unstable solar power to increase grid power quality, or to
2. Increase the usage of solar energy and reduce grid electricity cost, or to
3. Serve as back up power supply for local electrical equipments during grid power outage, or to
4. Serve as temporary power supply for remote area or certain events

Features:

- ▶ Touch Screen LCD
- ▶ Flexible Battery Type(li-ion,lead-acid)
- ▶ Comprehensive Protection for Inverter and Battery
- ▶ Multiple Working Mode Presetable
- ▶ Battery Forcast (discharge time, capacity, etc)
- ▶ CAN and RS485 Communication Interface, Modbus Protocol
- ▶ Seamless transfer between on and off grid
- ▶ Flexible design, multiple inverters parallelable

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Datasheet	Growatt PCS50
AC(Grid-connected)	
Rated power	50KVA
Rated voltage	400V
Voltage Range	310V - 450V
Rated frequency	50/60Hz
Frequency range	47~51.5/57~61.5Hz
THDI	<3%
PF	-0.99~0.99
Output from	3 phase 4 wire

General Information

Maximum efficiency	97.5%
Environment compatibility	IP 20
Noise	<65dB
Environment temperature	-25 °C ... +55 °C
Cooling	Air Forced
Humidity	0 ~95% non-condensing
Altitude	5000m(derated above 3000m)
Dimension (W/H/D)	mm

Datasheet	Growatt PCS50
AC(off-grid)	
Rated voltage	400Vac
THDU	≤1%linear
Rated frequency	50/60Hz
Overload capability	110%-10 mins 120%-1 min

DC(battery)

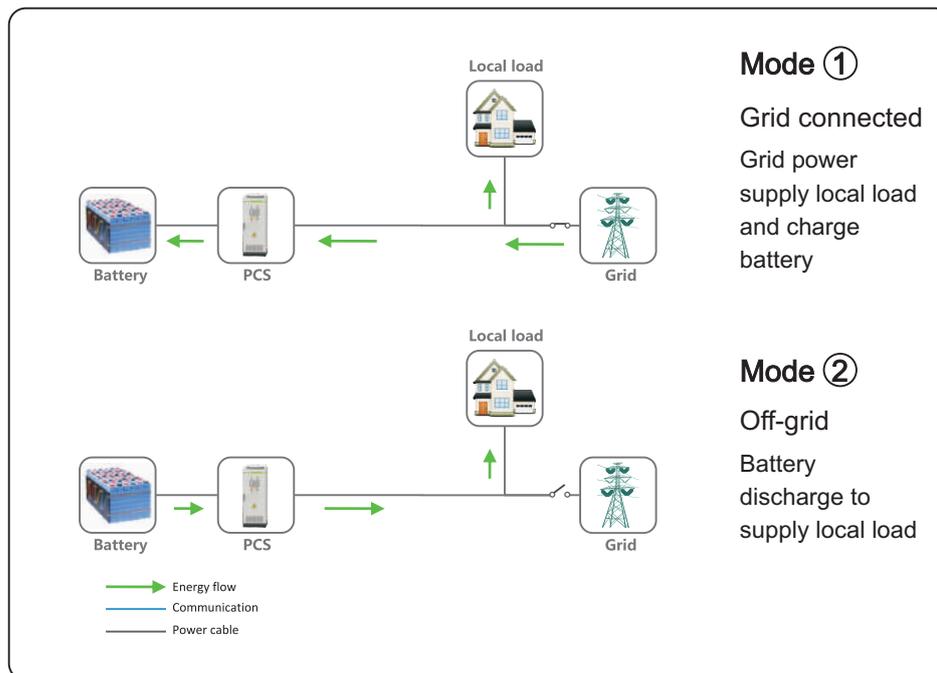
Max power	55KW
Current regulation	±1%
Voltage regulation	±1%
Voltage ripple	<3%
Current ripple	<2%
Rated voltage	600V
Voltage range	500-820V
Rated current	84A
Max current	125A
Input numbers	1

Communication

Display	Touch Screen LCD
Communication interface	RS485/CAN

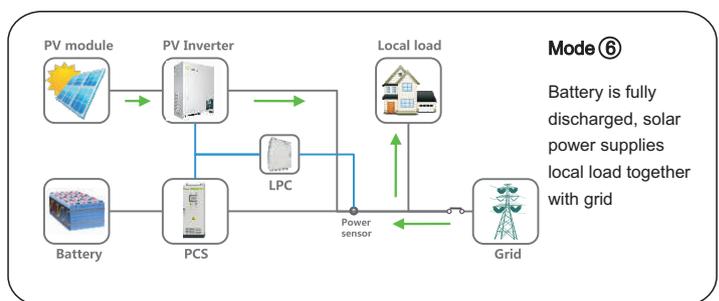
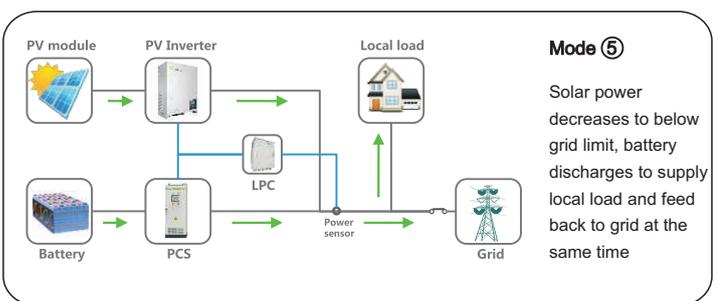
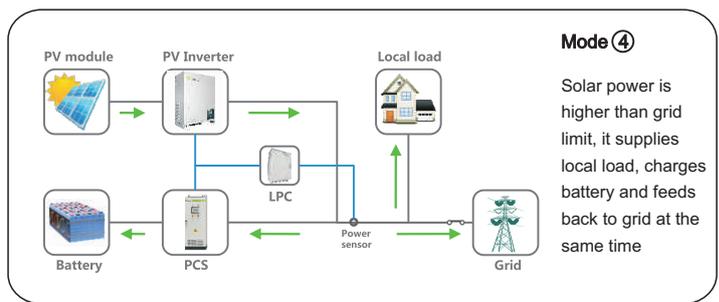
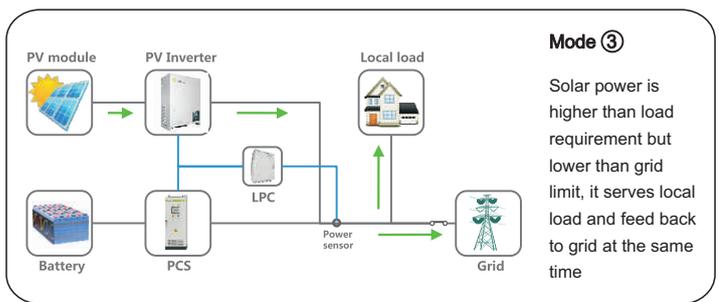
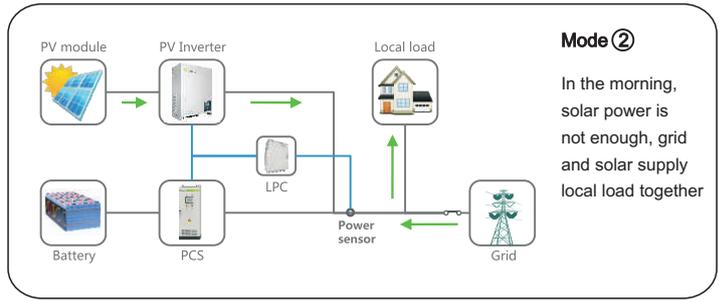
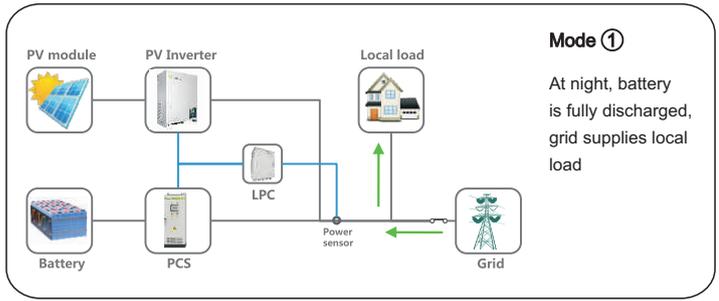
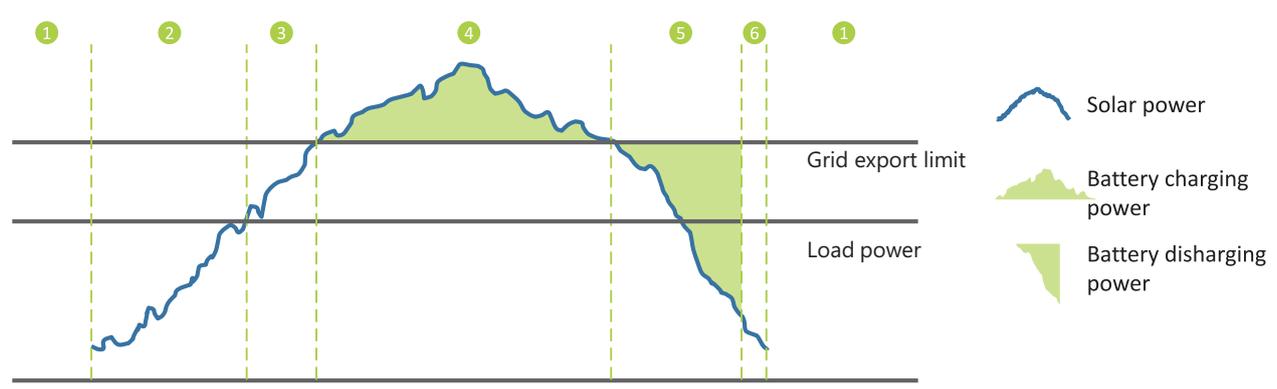
Typical Application

Stand Alone System



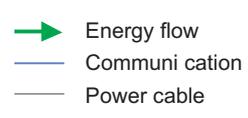
Typical Application

Hybrid System/Peak-shaving Application



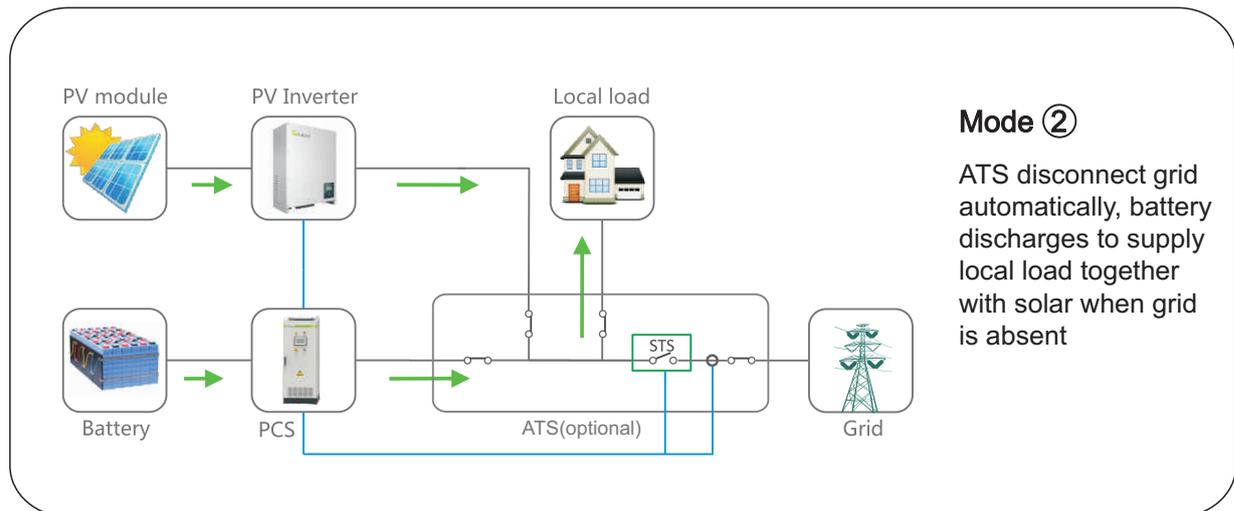
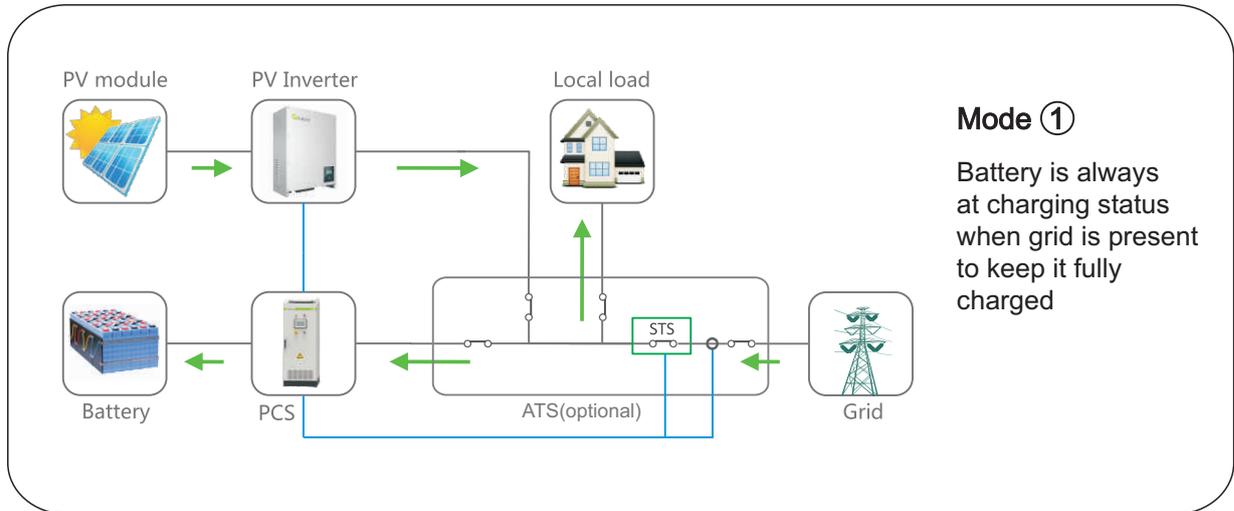
NOTE:

1. Output power of inverter and PCS can be controlled by the feedback information from power sensor. value ajustable
2. LPC stands for power control unit



Typical Application

Hybrid System/Back-up Application



- Energy flow
- Communication
- Power cable