

# 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 Forecast (discharge time, capacity, etc)
- ▶ CAN and RS485 Communication Interface, Modbus Protocol
- ▶ Seamless transfer between on and off grid(optional)
- ▶ Flexible design, multiple inverters parallelable
- ▶ Build-in transformer for grid isolation

#### GROWATT NEW ENERGY TECHNOLOGY Co.,LTD

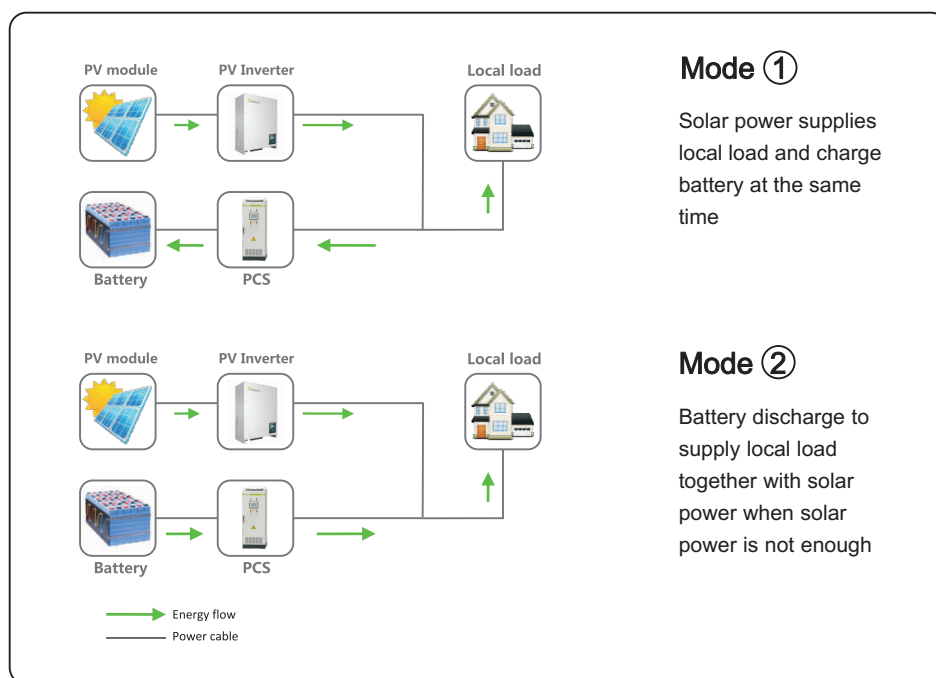
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Datasheet	Growatt PCS50	Datasheet	Growatt PCS50
AC(Grid-connected)		AC(off-grid)	
Rated power	50KVA	Rated voltage	400Vac
Rated voltage	400V	THDU	≤1%linear
Voltage Range	310V - 450V	Rated frequency	50/60Hz
Rated frequency	50/60Hz	Overload capability	110%-10 mins 120%-1 min
Frequency range	47~51.5/57~61.5Hz		
THDI	<3%	DC(battery)	
PF	0.9lagging~0.9leading	Max power	55KW
Output from	3/N/PE	Current regulation	±1%
General Information		Voltage regulation	±1%
Maximum efficiency	95.5%	Voltage ripple	<3%
Environment compatibility	IP20	Current ripple	<2%
Noise	<65dB	Rated voltage	600V
Environment temperature	-25 °C ... +55 °C	Voltage range	500-820V
Cooling	Air Forced	Rated current	84A
Humidity	0 ~95% non-condensing	Max current	125A
Altitude	5000m(derated above 3000m)	Input numbers	1
Dimension (W/D/H)	600/800/1630 mm	Communication	
Weight	450KG	Display	Touch Screen LCD
Transformer	Low frequency	Communication interface	RS485/CAN
Transfer between on/off grid	Manual(default) Automatic(optional)≤20ms		

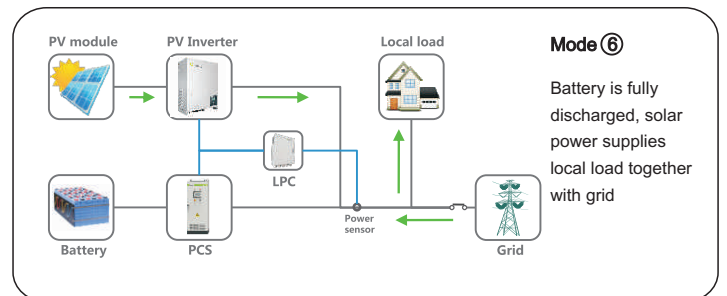
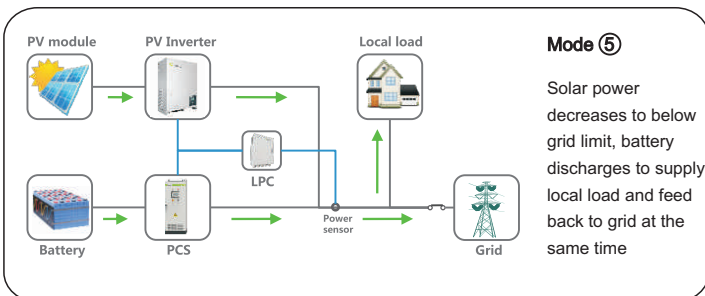
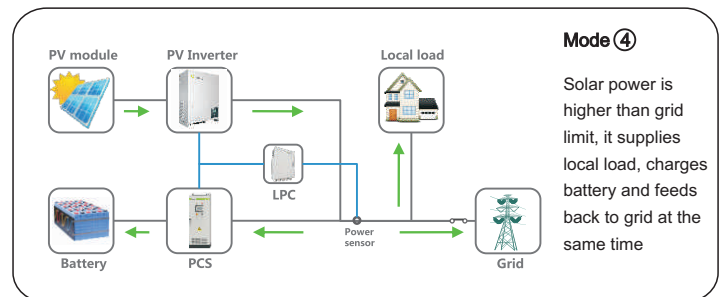
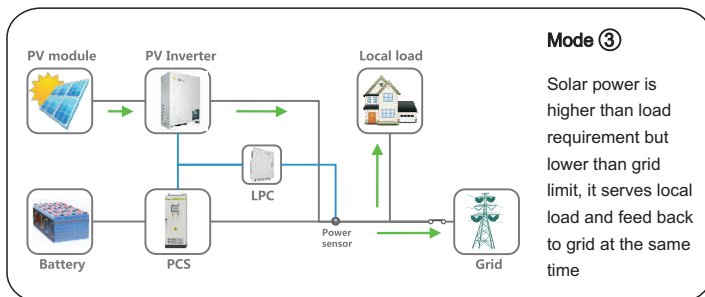
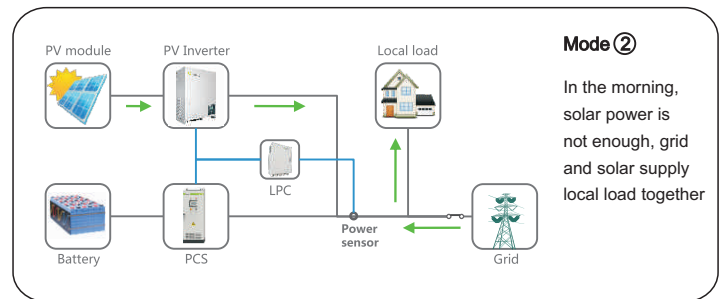
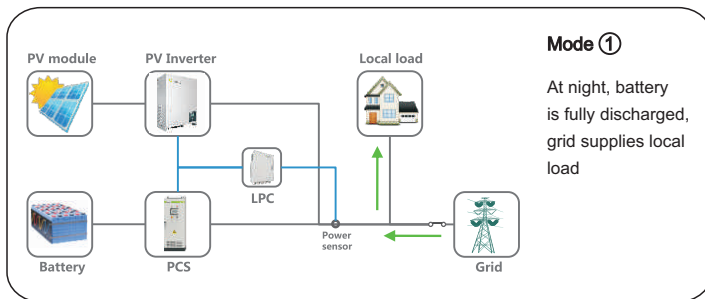
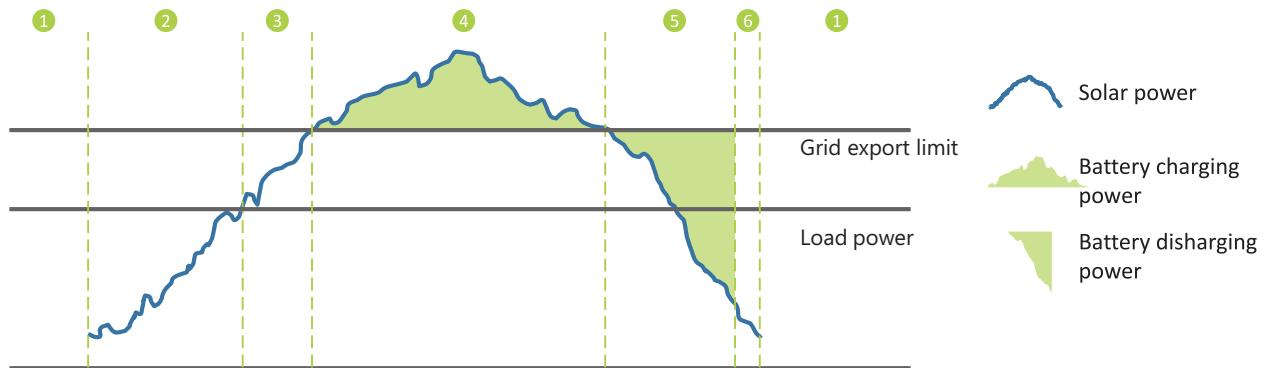
## Typical Application

### Stand Alone System



## Typical Application

### Hybrid System/Peak-shaving Application



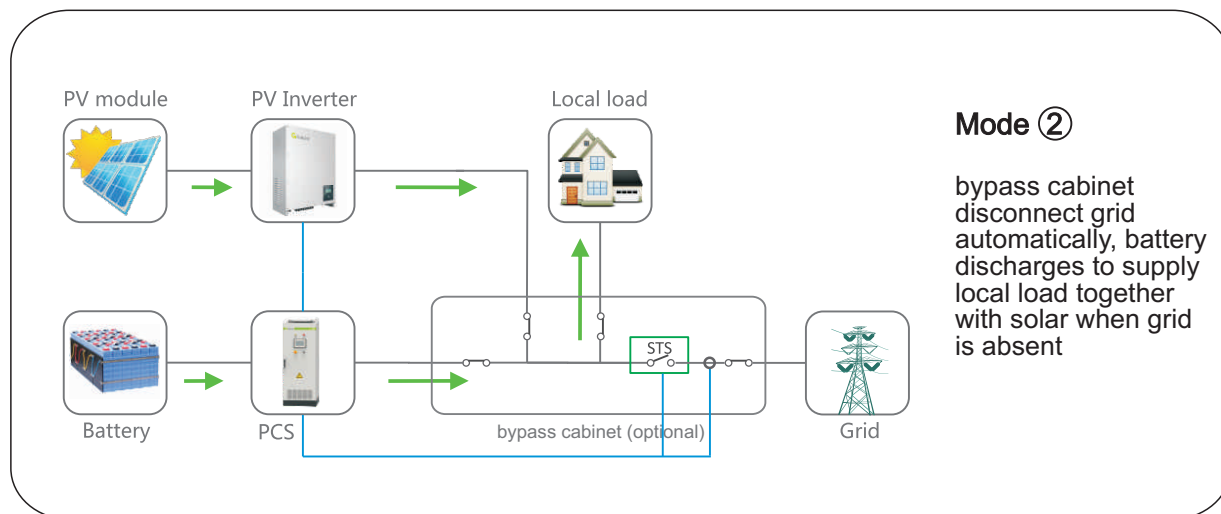
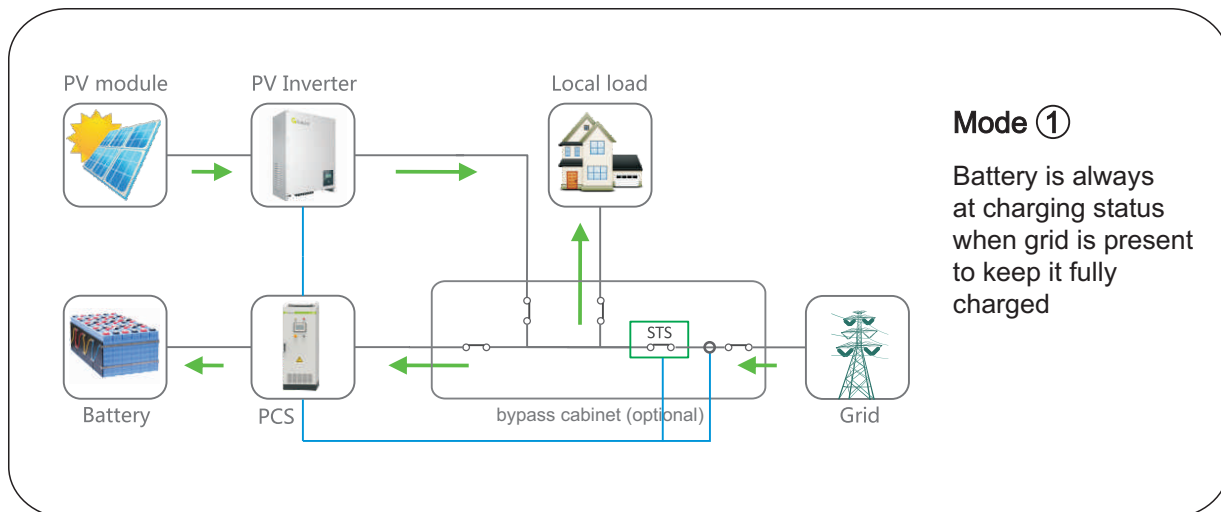
NOTE:

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

→ Energy flow  
— Communication  
— Power cable

## Typical Application

### Hybrid System/Back-up Application



- Energy flow
- Communication
- Power cable