

GROWATT HYBRID INVERTER

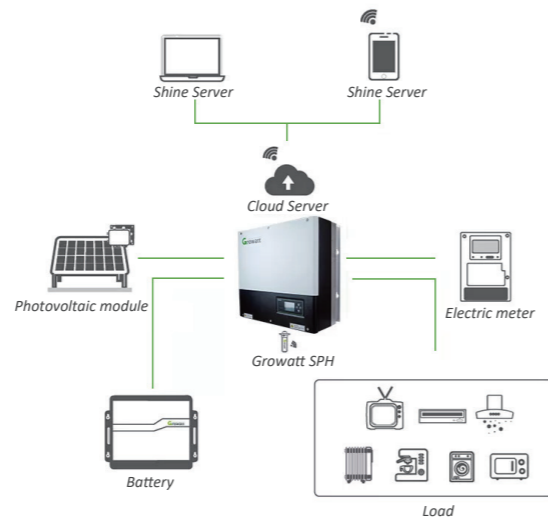
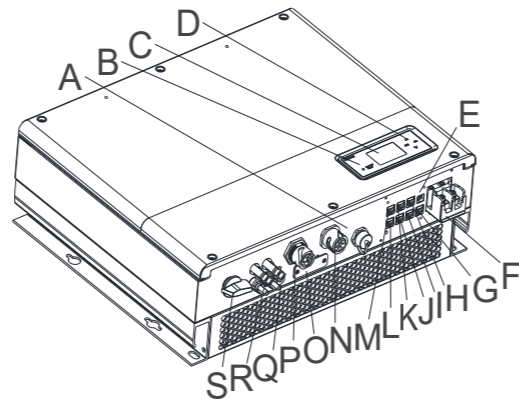
SPH Series is used to store energy generated by the photovoltaic cell panels or energy from grid if it is allowed in the battery, also energy can be sent to power grid through SPH for self consumption or when Grid power is lost, SPH can be used as backup power.



Growatt SPH3000~6000TL BL-UP

Product Overview

- A. USB interface
- B. LED of status display
- C. LCD screen
- D. Function button
- E. Dry contact
- F. Battery terminal
- G. VPP communication
- H. RS485-2 communication
- I. RS485-1 communication
- J. NTC: Lead-acid temperature sensor terminal
- K. CAN communication interface of Lithium battery
- L. RJ45 interface of DRMs(used only in Australia)
- M. RS485 communication interface of Merter/CT input terminal
- N. AC Grid (on grid connection)
- O. RSD(do not open except by Professional staff)
- P. EPS output(off grid connection)
- Q. Ground point
- R. PV input
- S. PV switch



Main Features

Leading Functions

- UPS function, 10ms transition
- Scalable system available

High Yields

- DC/AC ratio up to 2.0
- Dual MPP trackers

System Flexibility

- Support lithium and lead-acid battery
- VPP interface ready
- Smart load control via dry contact

Datasheet	SPH3000TL BL-UP	SPH3600TL BL-UP	SPH4000TL BL-UP	SPH4600TL BL-UP	SPH5000TL BL-UP	SPH6000TL BL-UP
Input data(PV)						
Max.recommended PV power	6000W	7200W	8000W	9200W	10500W	11200W
Max. DC voltage	550V					
Start voltage	120V					
MPP voltage range	120-550V/360V					
No. of MPP trackers	2					
No. of PV strings per MPP tracker	1					
Max. input current per MPP tracker	13.5A					
Max. short-circuit current per MPP tracker	16.5A					
Output data(AC)						
AC nominal power	3000W	3680W	4000W	4600W	5000W	6000W
Max. AC apparent power	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Nominal AC voltage(range)	230V/(180Vac-270Vac)					
AC grid frequency(range)	50Hz/60Hz(45Hz-55Hz/55Hz-65Hz)					
Max. output current	16A	16A	22A	22A	27A	27A
Adjustable power factor	0.8leading...0.8lagging					
THDi	<3%					
AC grid connection type	Single phase					
Battery data(DC)						
Battery voltage range	42~59V					
Max charging and discharging current	66A	75A	85A	85A	85A	85A
Continuous charging and discharging power	3000W	3680W	4000W	4000W	4000W	4000W
Type of battery	Lithium/Lead-acid					
Backup power(AC)						
Max. AC output power	3000W	3680W	4000W	4000W	4000W	4000W
Max. output current	17.4A					
Nominal AC output voltage	230Vac					
Nominal AC output frequency	50/60HZ					
THDv	<3%					
Switch time	<10ms					
Efficiency						
MAX. efficiency	97.20%	97.20%	97.30%	97.40%	97.50%	97.60%
European efficiency	97%	97%	97.10%	97.10%	97.20%	97.20%
MPPT efficiency	≥99.5%					
Protection devices						
DC switch	Yes					
DC reverse polarity protection	Yes					
AC/DC surge protection	Yes					
Battery reverse protection	Yes					
AC short-circuit protection	Yes					
Ground fault monitoring	Yes					
Grid monitoring	Yes					
Anti-islanding protection	Yes					
Residual-current monitoring unit	Yes					
Insulation resistance monitoring	Yes					
General data						
Dimensions(W / H / D)	458/565/188mm					
Weight	31kg					
Operating temperature range	-25°C ... +60°C					
Nighttime power consumption	<10W					
Topology	Transformerless					
Cooling	Natural					
Protection degree	IP65					
Relative humidity	0~100%					
Altitude	2000m					
PV DC Connection	H4/MC4(Optional)					
Battery DC Connection	OT Terminal					
AC connection	Connector					
Display	LCD+LED					
Interfaces:RS485/CAN/USB	Yes					
Monitor:RF/WIFI/GPRS	Optional					
Warranty:5 years / 10 years	Yes/Optional					