PH1800 MPK Plus Series

High Frequency On/Off Grid Hybrid Solar Inverter

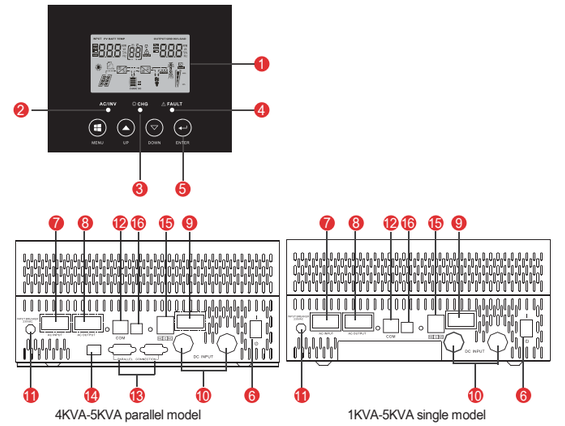
Feature:

- Pure sine wave output
- On/off grid inverter with energy storage
- Multiple operations: On-Grid, Off-Grid, Grid-Tie with Battery Back-up also recognized as Grid-Interactive
- Built-in MPPT solar charge controller
- Selectable input voltage range for home appliances and personal computers
- Selectable charging current based on applications
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Smart battery charger design to optimize battery performance
- Cold start function
- Parallel operation with up to 3 units (Available for MUST PH18-4K/5K MPK Plus)
- Optional Remote Control Panel available

Introduction:

This is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterruptible power support with portable size. Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

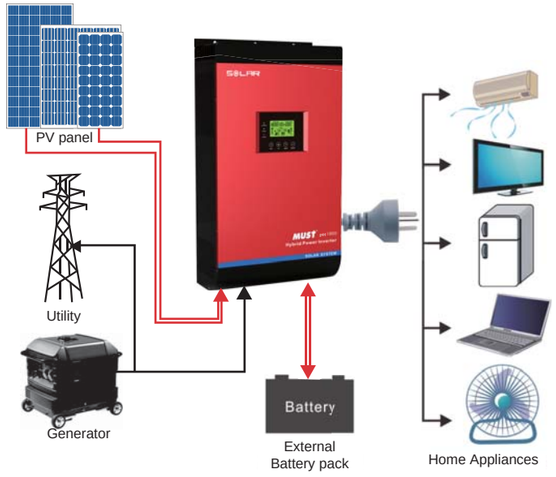
LCD Display Information



1. LCD display
2. Status indicator
3. Charging indicator
4. Fault indicator
5. Function buttons
6. Power on/off switch
7. AC input
8. AC output
9. PV input
10. Battery input
11. Circuit breaker
12. RS485 communication port
13. Parallel communication cable (only for parallel model)
14. Parallel switch
15. Dry contact
16. USB

NOTE: For parallel model installation and operation, please check separate parallel installation guide for the details.

Solar System Connection



Back Panel

Specification

MODEL		PH18-1K MPK Plus	PH18-2K MPK Plus	PH18-3K MPK Plus	PH18-4K MPK Plus	PH18-5K MPK Plus
Default Battery System Voltage		24VDC			48VDC	
INVERTER OUTPUT	Reted Power	1000VA/ 800W	2000VA/ 1600W	3000VA/ 2400W	4000VA/ 3200W	5000VA/4000W
	Surge Power	2000VA	4000VA	6000VA	8000VA	10000VA
	Waveform	Pure sine wave				
	AC Voltage Regulation (Batt.Mode)	230VAC±5%				
	Electric current	3.4A	7.0A	10.5A	13.0A	
	Output frequency precision	50Hz±0.1%				
	THD (Linear loads)	Off grid≤2%				
		Grid discharge ≤3%				
		Grid charge ≤3%				
	Inverter Efficiency (Peak)	90%	93%			
	Transfer Time	10ms(FST、APL)；20ms(SLO)				
AC INPUT	Voltage	230VAC				
	Selectable Voltage Range	170~280VAC(FST)；90~280VAC(SLO);184-253VAC(APL)				
	Frequency Range	50Hz/60Hz (Auto sensing)				
BATTERY	Nominal voltage	24VDC			48VDC	
	Floating Charge Voltage	27VDC			54VDC	
	Overcharge Protection	31VDC			60VDC	
SOLAR CHARGER & AC CHARGER	Maximum PV Array Open Circuit Voltage	145VDC				
	PV Array MPPT Voltage Range	30~130VDC			64~130VDC	
	Standby Power Consumption	2W				
	Reted Power	1500W			3000W	
	Maximum Solar Charge Current	60A				
	Maximum Efficiency	98%				
	Maximum AC Charge Current	10A or 20A	20A or 30A		60A	
	Maximum Charge Current	60A			120A	
MECHANICAL SPECIFICATIONS	Dimension,W*H*D(mm)	272*372*131			295*528*141	
	Net Weight(kg)	7.4	7.6	8.0	12.5	13.5
OTHER	Humidity	5% to 95% Relativ Humidity (Non-condensing)				
	Operating Temperature	0°C -55°C				
	Storage Temperature	-15°C-60°C				

*** Product specifications are subject to change without further notice.**

Approximate Back-up Time Table

Model	Load（VA）	Backup Time@24V 100Ah(min)	Backup Time@24V 200Ah(min)
1KVA	200	766	1610
	600	198	503
	1000	112	269
2KVA	200	766	1610
	1000	112	269
	2000	50	112
3KVA	300	449	1100
	1500	68	164
	3000	28	67

Model	Load（VA）	Backup Time@48V 100Ah(min)	Backup Time@48V 200Ah(min)
1KVA	100	2529	5058
	500	482	1035
	1000	186	471
2KVA	200	1581	3161
	1000	268	615
	2000	106	257
3KVA	300	1054	2107
	1500	159	402
	3000	63	155
4KVA	400	766	1610
	2000	112	269
	4000	50	112
5KVA	500	613	1288
	2500	90	215
	5000	40	90