


# High Frequency On Grid Solar Inverter

## PH5900 TM Series (4KW-15KW)



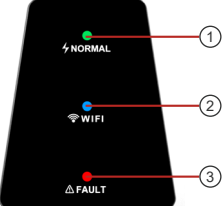
### Features

- Wide input voltage range from 200V-1000V
- IP65 protection degree
- Integrated DC switch
- DSP controller
- The maximum efficiency is 98.4%
- Multi MPPT controller
- WIFI monitoring standard
- Easy installation

### Introduction

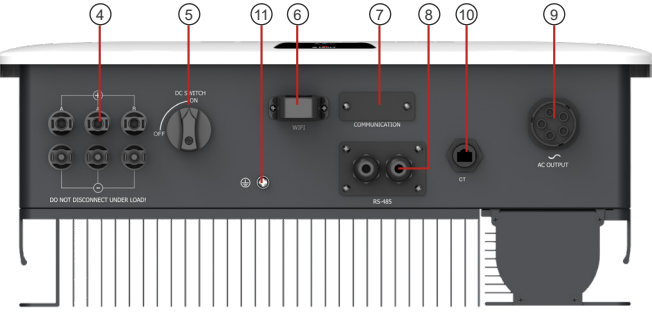
PH5900TM series PV inverters take full account of the needs of end customers, It is used to convert the DC generated by photovoltaic panels into AC and send it to the grid in a three-phase manner with excellent performance at the same time, use LED as inverter status display, effectively improve product life. Using DSP digital control, could afford wide grid voltage range, have a full range of protection features; to maximize the benefits at the same time, greatly enhance the reliability of the product.

### Back panel printing description



1. Operation normal (Green)
2. WIFI communication (Blue)
3. Error display (Red)

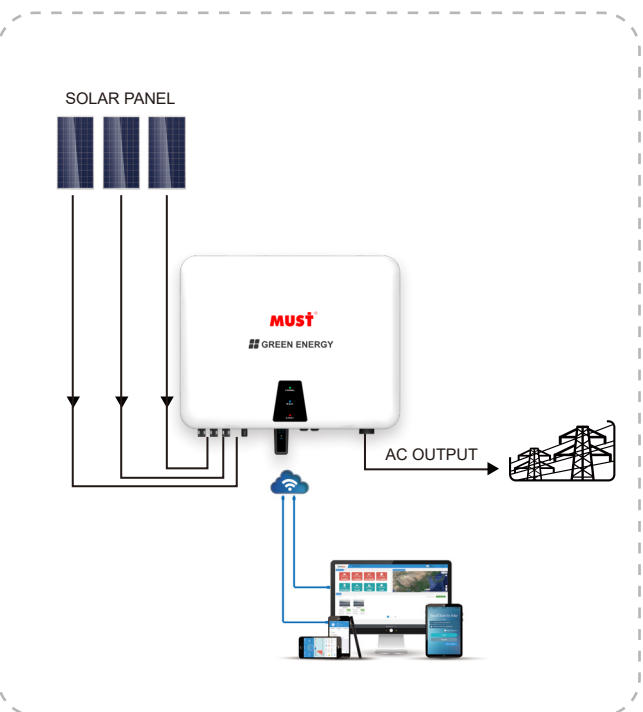
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4. PV input
5. DC switch
6. WIFI connector
7. USB

8. RS485
9. AC output
10. Meter
11. Ground

### Solar system connection



### Specification

MODEL		PH59-4000TM	PH59-5000TM	PH59-6000TM	
OUTPUT (AC)	Rated AC output power	4000W	5000W	6000W	
	Max.AC apparent power	4400VA	5500VA	6600VA	
	Max.output current	6.4A	8A	9.6A	
	Nominal AC Voltage	230V / 400V			
	AC Voltage range	320-478V			
	AC grid frequency range	50±5Hz			
		60±5Hz			
	Power factor at Rated power	1			
	Adjustable displacement power factor	0.8leading...0.8lagging			
	Total harmonic distortion (THDi)	< 3%			
AC grid connection type	3W+N+PE				
INPUT DATA	Max.recommended PV power	4800W	6000W	7200W	
	Max.DC voltage	1000V			
	Start voltage	160V			
	Nominal voltage	600V			
	MPPT voltage range	200V-1000V			
	Max.input current	12.5A / 12.5A			
	Number of independent MPP trackers / strings per MPP tracker	2/1			
	DC connection	H4 / MC4			
	EFFICIENCY	Max.efficiency	98.4%		
		Euro weighted efficiency	97.6%		
MPPT efficiency		99.5%			
Protection devices	DC reverse polarity protection , Output over current protection, Output overvoltage protection-varistor, Integrated DC switch, Ground fault monitoring, Integrated all-pole sensitive leakage current monitoring unit				
GENERAL DATA FEATURES	Dimension(W/H/D)(mm)	500*428*200			
	Weight (kg)	21			
	Operation temperature range	-25°C - +60°C with derating above 45°C			
	Noise emission(typical)	≤35dB(A)			
	Altitude	3000m			
	Self-consumption (night)	< 1W			
	Topology	Transformerless			
	Cooling concept	Natural			
	Environmental protection Rating	Ip65			
	Relative humidity	0-100%			
FEATURES	AC connection	Connector			
	Display	LED			
	Interfaces:USB/WI-FI/RS485/GPRS	Yes/Yes/Yes/Opt			
	Warranty	Standard 5 years / 10 years (opt.)			
	Certificates and approvals	CE-EMC+LVD (EN6100-6-3:2007, EN6100-6-1:2017+EN IEC62109-1:2010, EN IEC62109-2:2011) IEC60529; EN50549-1:2019; UNE217001-2020; UNE217002-2020, NTS-631:2021 (Type A); G99			

### Specification --- 7-11KW

MODEL		PH59-7000TM	PH59-8000TM	PH59-9000TM	PH59-10000TM	PH59-11000TM
OUTPUT (AC)	Rated AC output power	7000W	8000W	9000W	10000W	11000W
	Max.AC apparent power	7700VA	8800VA	9900VA	11000VA	12100VA
	Max.output current	11.1A	12.7A	14.3A	15.9A	17.5A
	Nominal AC Voltage	230V / 400V				
	AC Voltage range	320-478V				
	AC grid frequency range	50±5Hz				
		60±5Hz				
	Power factor at Rated power	1				
	Adjustable displacement power factor	0.8leading...0.8lagging				
	Total harmonic distortion (THDi)	< 3%				
	AC grid connection type	3W+N+PE				
INPUT DATA	Max.recommended PV power	8400W	9600W	10800W	12000W	13200W
	Max.DC voltage	1000V				
	Start voltage	160V				
	Nominal voltage	600V				
	MPPT voltage range	200V-1000V				
	Max.input current	12.5A / 12.5A				
	Number of independent MPP trackers / strings per MPP tracker	2/1				
	DC connection	H4 / MC4				
EFFICIENCY	Max.efficiency	98.4%				
	Euro weighted efficiency	98%				
	MPPT efficiency	99.5%				
	Protection devices	DC reverse polarity protection , Output over current protection, Output overvoltage protection-varistor, Integrated DC switch, Ground fault monitoring, Integrated all-pole sensitive leakage current monitoring unit				
GENERAL DATA FEATURES	Dimension(W/H/D)(mm)	500*428*200				
	Weight (kg)	23.2				
	Operation temperature range	-25°C - +60°C with derating above 45°C				
	Noise emission(typical)	≤35dB(A)				
	Altitude	3000m				
	Self-consumption (night)	< 1W				
	Topology	Transformerless				
	Cooling concept	Natural				
	Environmental protection Rating	Ip65				
	Relative humidity	0-100%				
	FEATURES	AC connection	connector			
Display		LED				
Interfaces:USB/WI-FI/RS485/GPRS		yes/yes/yes/opt				
Warranty		Standard 5 years / 10 years (opt.)				
Certificates and approvals		CE-EMC+LVD (EN6100-6-3:2007, EN6100-6-1:2017+EN IEC62109-1:2010, EN IEC62109-2:2011) IEC60529; EN50549-1:2019; UNE217001-2020; UNE217002-2020, NTS-631:2021 (Type A); G99				

### Specification --- 12-15KW

MODEL		PH59-12000TM	PH59-13000TM	PH59-15000TM
OUTPUT (AC)	Rated AC output power	12000W	13000W	15000W
	Max.AC apparent power	13200VA	14300VA	16500VA
	Max.output current	19A	20.6A	23.8A
	Nominal AC Voltage	230V / 400V		
	AC Voltage range	320-478V		
	AC grid frequency range	50±5Hz		
		60±5Hz		
	Power factor at Rated power	1		
	Adjustable displacement power factor	0.8leading...0.8lagging		
	Total harmonic distortion (THDi)	< 3%		
	AC grid connection type	3W+N+PE		
INPUT DATA	Max.recommended PV power	14400W	15600W	18000W
	Max.DC voltage	1000V		
	Start voltage	160V		
	Nominal voltage	600V		
	MPPT voltage range	200V-1000V		
	Max.input current	21A / 11A		
	Number of independent MPP trackers / strings per MPP tracker	2/2+1		
	DC connection	H4 / MC4		
EFFICIENCY	Max.efficiency	98.4%		
	Euro weighted efficiency	98%		
	MPPT efficiency	99.5%		
	Protection devices	DC reverse polarity protection , Output over current protection, Output overvoltage protection-varistor, Integrated DC switch, Ground fault monitoring, Integrated all-pole sensitive leakage current monitoring unit		
GENERAL DATA FEATURES	Dimension(W/H/D)(mm)	500*428*200		
	Weight (kg)	24.8		
	Operation temperature range	-25°C - +60°C with derating above 45°C		
	Noise emission(typical)	≤35dB(A)		
	Altitude	3000m		
	Self-consumption (night)	< 1W		
	Topology	Transformerless		
	Cooling concept	Natural		
	Environmental protection Rating	Ip65		
	Relative humidity	0-100%		
	FEATURES	AC connection	connector	
Display		LED		
Interfaces:USB/WI-FI/RS485/GPRS		yes/yes/yes/opt		
Warranty		Standard 5 years / 10 years (opt.)		
Certificates and approvals		CE-EMC+LVD (EN6100-6-3:2007, EN6100-6-1:2017+EN IEC62109-1:2010, EN IEC62109-2:2011) IEC60529; EN50549-1:2019; UNE217001-2020; UNE217002-2020, NTS-631:2021 (Type A); G99		