

Grid-connected PV Inverter

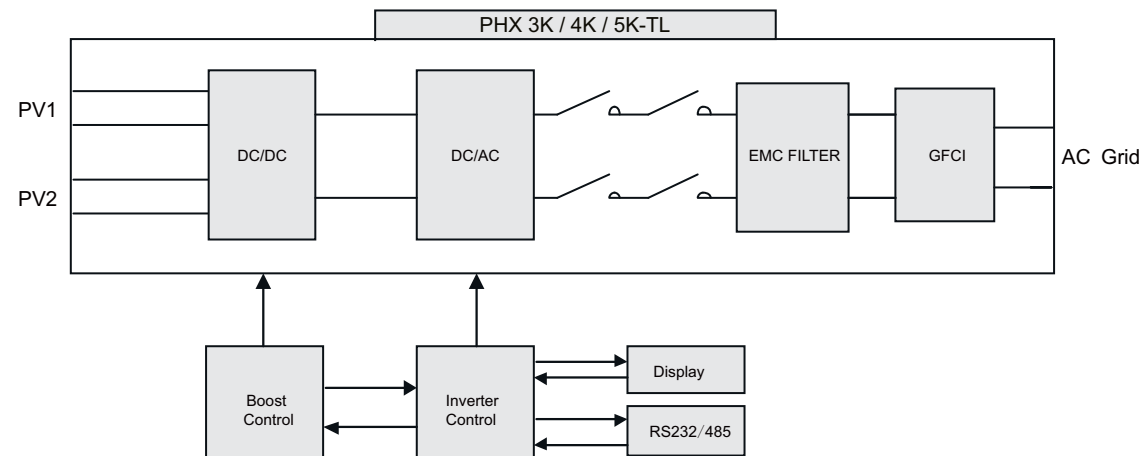
PHX 3K / 4K / 5K-TL



Features

Features	Advantages	Benefits
<ul style="list-style-type: none"> Standard 10 years warranty, 5 ~ 25 years optional Built-in GPRS as option Built-in Wifi as option External Inductor Smaller and lighter, only 16.5kg High performance DSP for algorithm control VDE-AR-N 4105 certification New topology design Dual MPPT design Multi-button touch interface LCD screen visible at night Have anti-shading function 	<ul style="list-style-type: none"> Longer life cycle Plug and play Free monitoring through our webportal Very lower internal temperature Easy transportation and installation Faster CPU speed Adjustable active and reactive power Maximum conversion efficiency up to 98.2%, Euro up to 97.5% More flexible system design User friendly operation Real-time data readable at night Suitable to complex installation environment 	<ul style="list-style-type: none"> more stable and reliable No commissioning work to get real-time remote monitoring More convenient monitoring solution without any charge Longer life cycle Saving storage and installation space Higher inverter control accuracy Meet the latest certification and regulations Increase system payback Fit in various installation environments Easy to operate Real-time operating condition accessible Increase the electricity generation of the system in shading environment

Block diagram



Technical Data

MODEL	PHX 3K-TL	PHX 4K-TL	PHX 5K-TL
INPUT (DC)			
Max. PV power	3400 W	4500 W	5200 W
Max. DC voltage	590 V	590 V	590 V
Nominal DC voltage	360 V	360 V	360 V
Operating MPPT voltage range	120 ~ 550 V	120 ~ 550 V	120 ~ 550 V
MPPT voltage range at nominal power	150 ~ 500 V	200 ~ 500 V	200 ~ 500 V
Start up DC voltage	150 V	150 V	150 V
Turn off DC voltage	120 V	120 V	120 V
Max. DC current	12 A / 12 A	16 A / 16 A	18 A / 18 A
Max. short circuit current for each MPPT	16 A / 16 A	20 A / 20 A	20 A / 20 A
Number of MPPT trackers	2	2	2
Max. Input Power for each MPPT	2000 W	2600 W	3000 W
Number of DC connection for each MPPT	A:1 / B:1	A:1 / B:1	A:1 / B:1
DC connection type	MC4 connector	MC4 connector	MC4 connector
OUTPUT (AC)			
Max. AC apparent power	3300 VA	4400 VA	5000 VA
Nominal AC power (cos phi = 1)	3000 W	4000 W	4600 W
Nominal grid voltage	220 V / 230 V / 240 V	220 V / 230 V / 240 V	220 V / 230 V / 240 V
Nominal grid frequency	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz
Max. AC current	14.4 A	19.0 A	22.0 A
Grid voltage range	185 ~ 276 V	185 ~ 276 V	185 ~ 276V
Grid frequency range	45 ~ 55 Hz / 55 ~ 65 Hz	45 ~ 55 Hz / 55 ~ 65 Hz	45 ~ 55 Hz / 55 ~ 65 Hz
Power factor	0.9 capacitive...9 inductive	0.9 capacitive...9 inductive	0.9 capacitive...9 inductive
Total harmonic distortion (THD)	< 2%	< 2%	< 2%
Feed in starting power	30 W	30 W	30 W
Night time power consumption	< 1 W	< 1 W	< 1 W
Standby consumption	6 W	6 W	6 W
AC connection type	Plug-in connector	Plug-in connector	Plug-in connector
EFFICIENCY			
Max. efficiency (at 360 Vdc)	98.2%	98.2%	98.2%
Euro efficiency (at 360 Vdc)	97.3%	97.5%	97.5%
MPPT efficiency	99.9%	99.9%	99.9%
PROTECTIONS			
DC insulation monitoring	Yes		
DC switch	Optional		
Residual current monitoring unit (RCMU)	Integrated		
Grid monitoring with anti-islanding	Yes		
Protection class	I (according to IEC 62103)		
Overvoltage category	PV II / Mains III (according to IEC 62109-1)		
REFERENCE STANDARD			
Safety standard	EN 62109, AS / NZS 3100		
EMC standard	EN 61000-6-1, EN 61000-6-3, EN 61000-6-2, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12		
Grid standard	VDE-AR-N-4105, VDE 0126-1-1, CEI0-21, C10/11, G83/2, G59/3 UTE C15-712-1, EN 50438, AS 4777, CQC		
PHYSICAL			
Dimensions (W x D x H) (mm)	352 x 162.5 x 421		
Weight	16.5 kg		
Environmental protection rating	IP 65 (according to IEC 60529)		
Cooling concept	Internal fan convection		
Mounting information	Wall bracket		
GENERAL			
Operating temperature range	-25°C to +60°C (derating above 45°C)		
Relative humidity	0% to 98%, no condensation		
Max. altitude (above sea level)	2000m		
Noise level	< 40 dB		
Isolation type	Transformerless		
Display	3 LED, Backlight, 20 x 4 Character LCD		
Data communication interfaces	RS485 (WiFi, GPRS integrated)		
Computer communication	USB		
Standard warranty	10 years (5 ~ 25 years optional)		

Disclaimer:
 • These data in this document are tested under specified conditions. It may result in difference between actual results and these data due to some uncertain factors. The statement about this product is for reference only. It makes no representation or warranty.
 • All specifications subject to change without notice.