

Grid-connected PV Inverter

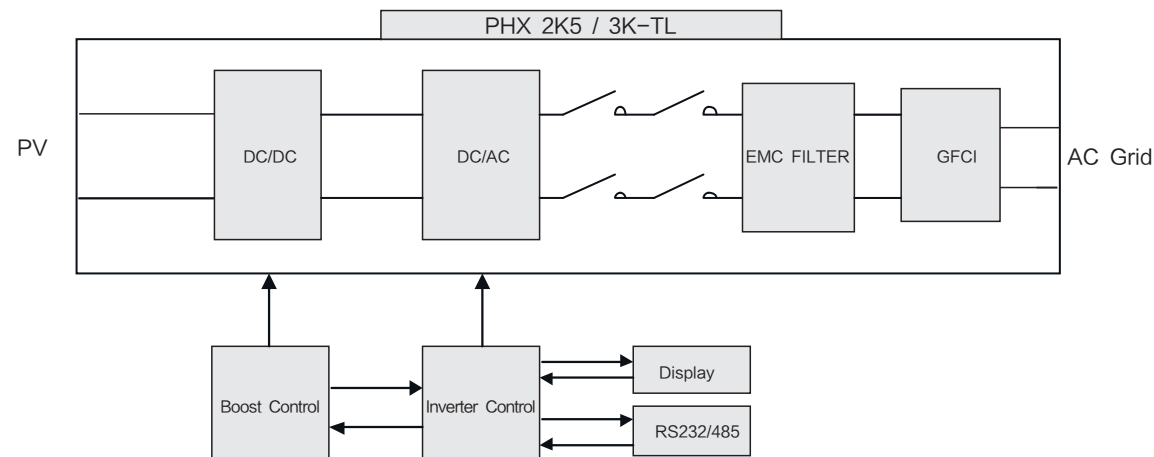
PHX 2K5 / 3K-TL



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, 3kW-TL2 weighs only 9.9kg High performance DSP for algorithm control VDE-AR-N 4105 certification New topology 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 fee for data transmission Very lower internal temperature Easy transportation and installation Faster CPU speed Adjustable active and reactive power Maximum conversion efficiency up to 97.7%, Euro up to 96.9% 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 ability Easy to operate Real-time operating condition accessible Increase the electricity generation of the system in shading environment

Block diagram



Technical Data

MODEL	PHX 2K5-TL	PHX 3K-TL
INPUT (DC)		
Max. PV power	2800 W	3250 W
Max. DC voltage	500 V	500 V
Nominal DC voltage	360 V	360 V
Operating MPPT voltage range	120 ~ 450 V	120 ~ 450 V
MPPT voltage range at nominal power	150 ~ 450 V	150 ~ 450 V
Start up DC voltage	150 V	150 V
Turn off DC voltage	120 V	120 V
Max. DC current	18 A	18 A
Max. short circuit current for each MPPT	20 A	20 A
Number of MPPT trackers	1	1
Number of DC connection for each MPPT	1	1
DC connection type	MC4 connector	MC4 connector
OUTPUT (AC)		
Max. AC apparent power	2750 VA	3000 VA
Nominal AC power (cos phi = 1)	2500 W	3000 W
Nominal grid voltage	220 V / 230 V / 240 V	220 V / 230 V / 240 V
Nominal grid frequency	50 Hz / 60 Hz	50 Hz / 60 Hz
Max. AC current	12.5 A	14.0 A
Grid voltage range	185 ~ 276 V	185 ~ 276 V
Grid frequency range	45 ~ 55 Hz / 55 ~ 65 Hz	45 ~ 55 Hz / 55 ~ 65 Hz
Power factor	0.95 capacitive...95 inductive	0.95 capacitive...95 inductive
Total harmonic distortion (THD)	< 2%	< 2%
Feed in starting power	30 W	30 W
Night time power consumption	< 1 W	< 1 W
Standby consumption	6 W	6 W
AC connection type	Plug-in connector	Plug-in connector
EFFICIENCY		
Max. efficiency (at 360 Vdc)	97.7%	97.7%
Euro efficiency (at 360 Vdc)	96.9%	97.0%
MPPT efficiency	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
Grid standard		VDE-AR-N-4105, VDE 0126-1-1, RD 1699, C10 / 11, G83/2, UTE C15-712-1, AS 4777, CEI 0-21, EN 50438
PHYSICAL		
Dimensions (W x D x H) (mm)		343 x 150 x 281
Weight		9.9 kg
Environmental protection rating		IP 65 (according to IEC 60529)
Cooling concept		Natural convection
Mounting information		Wall bracket
GENERAL		
Operating temperature		-20°C to +60°C (derating above 45°C)
Range relative humidity		0% to 98%, no condensation
Max. altitude (above sea level)		2000 m
Noise level		< 40 dB
Isolation type		Transformerless
Display		3 LED, Backlight, 4 x 20 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.