

# Three-phase Grid-connected PV Inverter

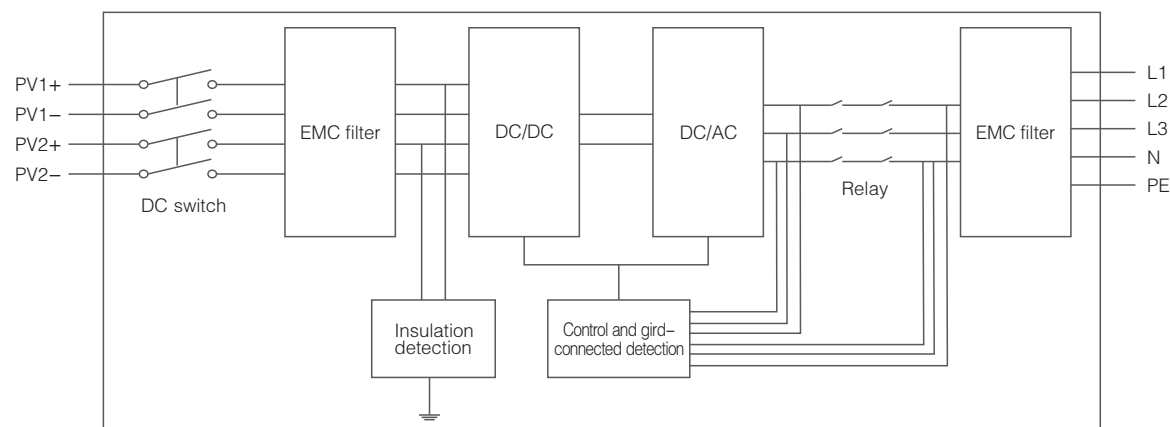
PHX 5K / 6K / 8K-TL



## Features

- Built-in GPRS (optional)
- Built-in Wi-Fi (optional)
- External inductance favorable for heat dissipation
- Smaller and lighter, only 22 kg
- High performance DSP for algorithm control
- VDE-AR-N 4105 certification
- New topology, maximum efficiency 98.2%, Europe efficiency 97.5%
- Dual MPPT design
- Waterproof and dustproof (IP65) design
- Convenient and rapid operation with touch-key design
- Control module with bi-directional power supply of DC and AC
- Anti-shading function, suitable for complicated installation environment

## Principle diagram



## Technical Data

MODEL	PHX 5K-TL	PHX 6K-TL	PHX 8K-TL
<b>INPUT (DC)</b>			
Max. input power	5150 W	6150 W	8200 W
Max. input voltage	1000 V	1000 V	1000 V
Nominal DC voltage	640 V	640 V	640 V
MPPT voltage range	150 V ~ 800 V	150 V ~ 800 V	150 V ~ 800 V
Full-load MPPT voltage range	260 V ~ 800 V	280 V ~ 800 V	360 V ~ 800 V
Starting voltage	250 V	250 V	250 V
Turn-off voltage	150 V	150 V	150 V
Max. input current (A / B)	11 A / 11 A	11 A / 11 A	14 A / 14 A
Max. short-circuit current of each MPPT	16 A / 16 A	16 A / 16 A	20 A / 20 A
Number of MPP trackers	2	2	2
Max. input power of each MPPT	3000 W	4000 W	5000 W
Number of DC connection	A:2 / B:2	A:2 / B:2	A:2 / B:2
DC connection type	MC4 connector	MC4 connector	MC4 connector
<b>OUTPUT (AC)</b>			
Max. AC apparent power	5000 VA	6000 VA	8000 VA
Nominal AC power	5000 W	6000 W	8000 W
Nominal output current	7.2 A	8.7 A	11.6 A
Nominal output voltage	3 / N / PE; 220 / 380 V 3 / N / PE; 230 / 400 V 3 / N / PE; 240 / 415 V	3 / N / PE; 220 / 380 V 3 / N / PE; 230 / 400 V 3 / N / PE; 240 / 415 V	3 / N / PE; 220 / 380 V 3 / N / PE; 230 / 400 V 3 / N / PE; 240 / 415 V
Rated grid frequency	50 Hz / 60 Hz	50 Hz / 60 Hz	50 Hz / 60 Hz
Max. output current	8.8 A	10.7 A	13.6 A
Grid voltage range	185 V ~ 276 V		
Grid frequency range	45 ~ 55 Hz / 55 ~ 65 Hz		
Power factor	0.9 (leading), 0.9 (lagging)		
THD	< 2%		
Feed in starting power	30 W		
Self-consumption (at night)	< 1 W		
Standby consumption	< 10 W		
AC connection type	Plug-in connector		
<b>EFFICIENCY</b>			
Max. efficiency	97.6%		
Europe efficiency	96.8%		
MPPT efficiency	99.9%		
<b>PROTECTIONS</b>			
DC insulation monitoring	Yes		
DC switch	Optional		
Residual current monitoring unit (RCMU)	Integrated		
Grid monitoring with anti-islanding	Yes		
Electricity fuse protection	Yes		
Protection class	I (according to IEC 62103)		
Overvoltage category	III (according to IEC 62109-1)		
<b>REFERENCE STANDARD</b>			
Safety standard	EN 62109, AS / NZS 3100		
EMC standard	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3		
Grid standard	VDE-AR-N4105, VDE-0126-1-1, G83 / 1, EN 50438, RD 1699, CEI 0-21, AS 4777, C10 / C11		
<b>GENERAL DATA</b>			
Data communication interfaces	RS485 (Wi-Fi, GPRS optional)		
Computer communication	USB		
Display	3 xLED & 20 x4 LCD		
Isolation type	Transformerless		
Cooling	Natural cooling		
Noise	< 40 dB		
Operating temperature	- 25 °C ~ + 60 °C (> 45°C derating)		
Relative humidity	0 ~ 98% non-condensing		
Altitude	2000 m		
IP rating	IP 65 (according to IEC 60529)		
Installation method	Wall-mounted		
Dimensions (W x D x H) (mm)	352 x 172.5 x 421		
Packaged dimensions (W x D x H) (mm)	695 x 275 x 525		
Net weight (kg)	24.5		
Gross weight (kg)	28.4		

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.