

# Grid-connected PV Inverter

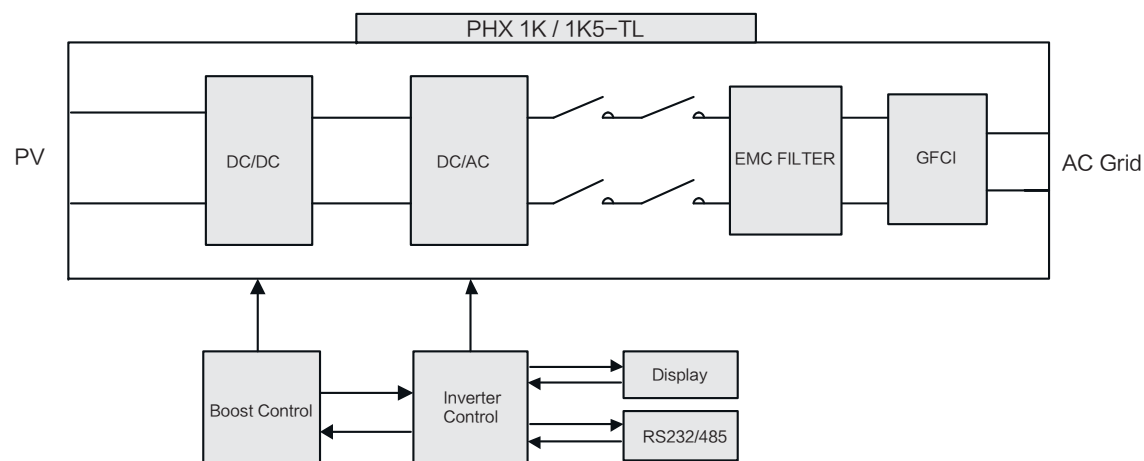
PHX 1K / 1K5-TL



## Features

- Transformerless design, high efficiency (Max. 95.5%, Euro 94.2%)
- High MPPT accuracy (>99.9%)
- Wide DC input range (60 ~ 300 Vdc), compatible with 2 to 7 panel installation
- Easy to wire, install and operate
- IP65 design, suitable for indoor and outdoor installation
- 5 years warranty (10 ~ 25 years optional)

## Block diagram



## Technical Data

MODEL	PHX 1K-TL	PHX 1.5K-TL
<b>INPUT (DC)</b>		
Max. PV power	1.25 KW	1.5 KW
Max. DC voltage	400 V	400 V
Operating MPPT voltage range	60 ~ 300 V	60 ~ 300 V
MPPT voltage range at nominal power	100 ~ 300 V	125 ~ 300 V
Start up DC voltage	70 V	70 V
Turn off DC voltage	50 V	50 V
Max. DC current	10 A	10 A
Max. short circuit current for each MPPT	12 A	12 A
Number of MPPT trackers	1	1
Number of DC connections for each MPPT	1	1
DC connection type	MC4 connector	MC4 connector
<b>OUTPUT (AC)</b>		
Max. AC apparent power	1000 VA	1250 VA
Nominal AC power (cos phi = 1)	1000 W	1250 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	5.0 A	6.25 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	> 0.99	> 0.99
Total harmonic distortion (THD)	< 3%	< 3%
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
<b>EFFICIENCY</b>		
Max. efficiency (at 360 Vdc)	95.5%	95.5%
Euro efficiency (at 360 Vdc)	94.2%	94.2%
MPPT efficiency	99.9%	99.9%
<b>PROTECTIONS</b>		
DC insulation monitoring	Yes	Yes
DC switch	Optional	Optional
Residual current monitoring unit (RCMU)	Integrated	Integrated
Grid monitoring with anti-islanding	Yes	Yes
Protection class	I (according to IEC 62103)	I (according to IEC 62103)
Overvoltage category	PV II / Mains III (according to IEC 62109-1)	PV II / Mains III (according to IEC 62109-1)
<b>REFERENCE STANDARD</b>		
Safety standard	ENEN 62109, AS / NZS3100	
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 0126-1-1, RD1663, C10/11, G83/2, UTE C15-712-1, AS4777, CQC, CEI0-21, EN 50438	
<b>PHYSICAL</b>		
Dimensions (W x D x H) (mm)	210 x 90 x 297	
Weight	5.5 kg	
Environmental protection rating	IP 65 (according to IEC 60529)	
Cooling concept	Natural convection	
Mounting information	Wall bracket	
<b>GENERAL</b>		
Operating temperature range	-25°C to +60°C (derating above 45°C)	
Relative humidity	0% to 98%, no condensation	
Max. altitude (above sea level)	2000 m	
Noise level	< 40 dB	
Isolation type	Transformerless	
Display	2 LED, Backlight, 16*2 Character LCD	
Data communication interfaces	(RS485, WIFI, GPRS optional)	
Computer communication	RS232 as option	
Standard warranty	5 years	

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.