

Power Plant PV Inverter

PHX 500KW

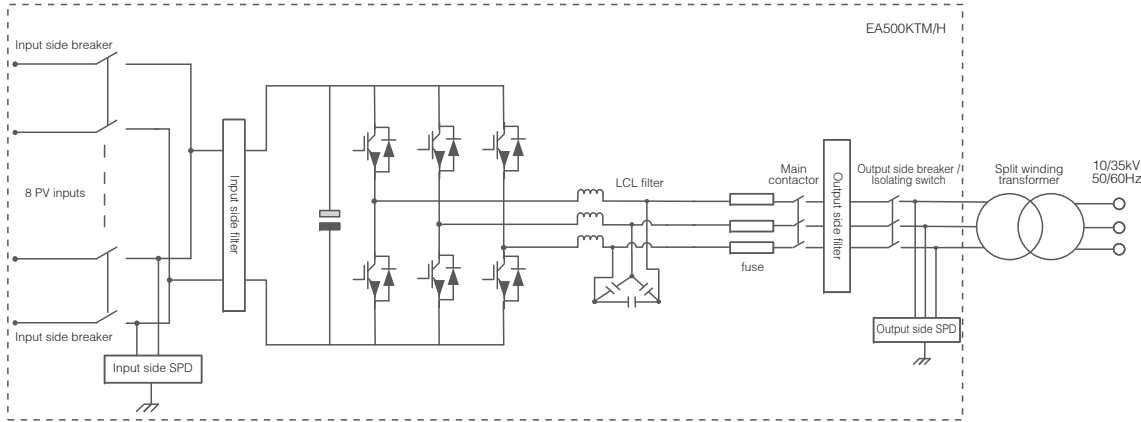


500KW PV Grid-connected Inverter are designed with external transformer and featured with wide input voltage range and high conversion efficiency. Its excellent protection, higher MPPT efficiency, real-time monitoring and parallel operation of multiple inverters make it ideal for large-scale grid-connected PV power plant.

Features

- Maximum conversion efficiency up to 98.7% (w/o transformer)
- Effective IGBT module
- Wide DC input range for flexible configuration of PV array
- DSP + CPLD full-digital control technology, excellent protection, safety and reliability
- Advanced MPPT algorithms
- Advanced anti-islanding technology
- Efficient thermal system design adapting to harsh environment
- Multi-communication interfaces, easy to monitor
- ZVRT (Zero voltage ride through) function
- Active and reactive power regulation function (optional)
- Applicable to large-scale power station having centralized high-voltage grid-connected design of multiple inverters (with external step-up transformer)
- TUV, CE, CQC certification

Principle diagram



Communications

RS485 / Ethernet / USB, Computer monitoring software

Safety

Effective protection functions: overvoltage, short-circuit, islanding, overtemperature and overload protection etc.
Standards complied: EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-3-2, EN61000-3-3, EN60164-1-1, EN55022, EN50178, EN45011

Technical Data

MODEL	PHX 500K-TM	PHX 500K-TH
DC SIDE		
Max. DC voltage	1000 Vdc	
MPPT voltage range	500 ~ 850 Vdc	
Max. DC power	550 KWp	
Max. input current	1100 A	
Number of PV Inputs	8	
AC SIDE		
Rated output power	500 KW	
Max. output power	550 KW	
Max. output current	1008 A	
Rated grid voltage	315 Vac	
Grid voltage tolerance	245 ~ 362 Vac	
Rated grid frequency	50 Hz / 60 Hz	
Grid frequency tolerance	47 ~ 51.5 Hz / 57 ~ 61.5 Hz	
THD	< 3% (rated power)	
Power factor	0.9 (leading) ~ 0.9 (lagging)	
SYSTEM		
Max. efficiency	98.7%	
Europe efficiency	98.5%	
IP rating	IP 20 (indoor)	
Self-consumption (at night)	< 100 W	
Ambient temperature	-25°C ~ +55°C	
Cooling	Air cooling	
Relative humidity	0 ~ 95 % non-condensation	
Altitude	6000 m (> 3000 m derating)	
DISPLAY AND COMMUNICATIONS		
Display	LCD (touch screen)	
Standard communication	RS485	
Optional communication	Ethernet / USB	
OTHERS		
Dimensions (W × D × H) (mm)	1200 × 800 × 2000	
Packaged dimensions (W × D × H) (mm)	1300 × 930 × 2070	
Net weight (kg)	930	
Gross weight (kg)	960	

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.