

Power Plant PV Inverter

EA500KTM4 / EA630KTM4



EA500KTM4 / EA630KTM4 PV Grid-connected Inverter are designed with external transformer and featured with wide input voltage range and high conversion efficiency. The unit is intended for indoor use and applicable for large-scale PV power plant. It allows parallel operation of multiple inverters, which simplifies design of power station. Meanwhile, it can make real-time monitoring through communication with computers.

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 certified

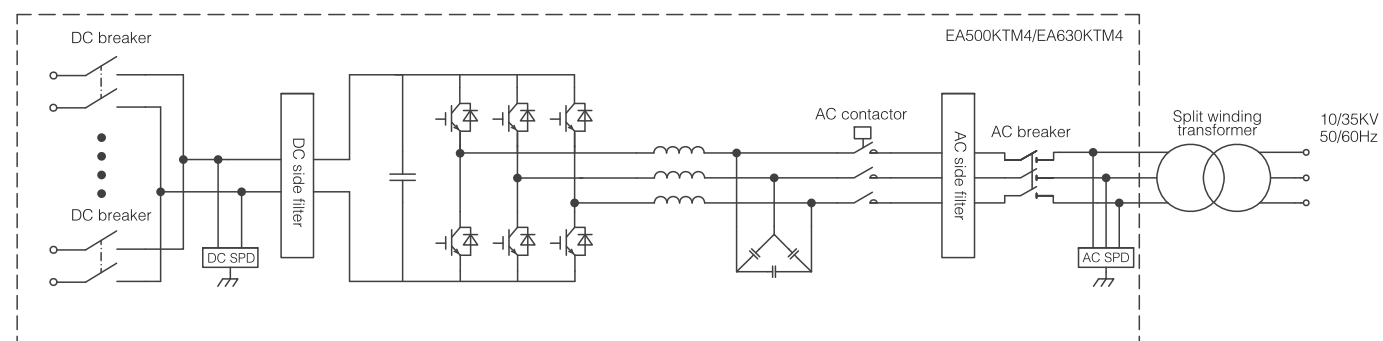
Communications

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

Schematic diagram



Technical Data

MODEL	EA500KTM4	EA630KTM4
DC SIDE		
Max. power of PV arrays	560 KW	705 KW
Max. open circuit voltage of PV arrays	1000 Vdc	
Max. DC current	1220 A	1356 A
Number of PV Inputs	8	10
MPPT voltage range	460 ~ 850 Vdc	520 ~ 850 Vdc
Start-up voltage	505 Vdc	570 Vdc
Min. operating voltage	460 Vdc	520 Vdc
MPPT efficiency	99.9%	99.9%
AC SIDE		
Rated output power	500 KW	630 KW
Max. AC output power	550 KVA	693 KVA
Max. output current	1008 A	1111 A
Grid voltage	3 ~ 315 Vac	3 ~ 360 Vac
Grid voltage tolerance	252 ~ 362 Vac (settable)	288 ~ 414 Vac (settable)
THD	< 3% (at rated power)	
Power factor	> 0.99 (adjustable)	
Grid frequency tolerance	45 ~ 55 Hz / 55 ~ 65 Hz	
Output DC current component	< 0.5% (rated output current)	
Grid monitoring	CGC / GF001:2009 standard for CN	
EFFICIENCY		
Max. efficiency	98.7% (w/o transformer)	
Europe efficiency	98.5% (w/o transformer)	
PROTECTIONS		
DC overvoltage protection	Yes	
DC reverse polarity protection	Yes	
DC short-circuit protection	Yes	
Insulation resistance detection	Yes	
AC overvoltage protection	Yes	
Grid monitoring	Yes	
Ground fault detection	Yes	
Overtemperature protection	Yes	
PID prevention & restoration	Optional	
SVG function	Optional	
Fault record	Yes	
Sleep mode at night	Yes	
Soft switching on/off	Yes	
Automatic switching between internal and external power supply	Optional	
GENERAL DATA		
Standby consumption	< 100 W	
Self-consumption (at night)	< 30 W	
communications	RS485 / Ethernet (optional) / GPRS (optional)	
Display	LCD (touch screen)	
IP rating	IP 20 (indoor)	
Cooling	Intelligent air cooling	
Ambient temperature	-25°C ~ + 65°C (derating for above 55°C)	
Relative humidity	0 ~ 95 % non-condensation	
Noise	< 65 db	
Dimensions (W x D x H) (mm)	1000 x 800 x 2200	
Weight (kg)	800	

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.