

1500 V 2.5 MW Central Inverter

EA2500KHV



This product is mainly applicable to large-scale PV station, which takes 2.5 MW as a unit, integrating two 1.25 MW PV grid-connected inverters, communication cabinet (optional), and maintenance power distribution cabinet, etc. Compared with the traditional 1000 V outdoor containerized inverter, it has the advantages of high voltage on DC side (up to 1500 V), which can reduce the current of DC side, increase the output voltage of AC side, improve overall efficiency of the system and generated energy, and reduce system investment cost.

Features

- Adopt standard container design, compact and reliable, convenient for transportation, installation and maintenance
- Container fan is featured with temperature control function, improving the reliability of system
- Strict thermal design, moisture proofing, anti-corrosion, salt spray proofing, adapting to harsh natural environment
- IP54, adapting to outdoor environment
- Adopt high efficiency dustproof design for wind inlets and outlets
- CQC, ZVRT, Top-Runner certification approved

Intelligent & Friendly

- Grid friendly, supporting zero voltage and low voltage ride through
- Adjustable reactive power, power factor from 0.8 leading to 0.8 lagging adjustable

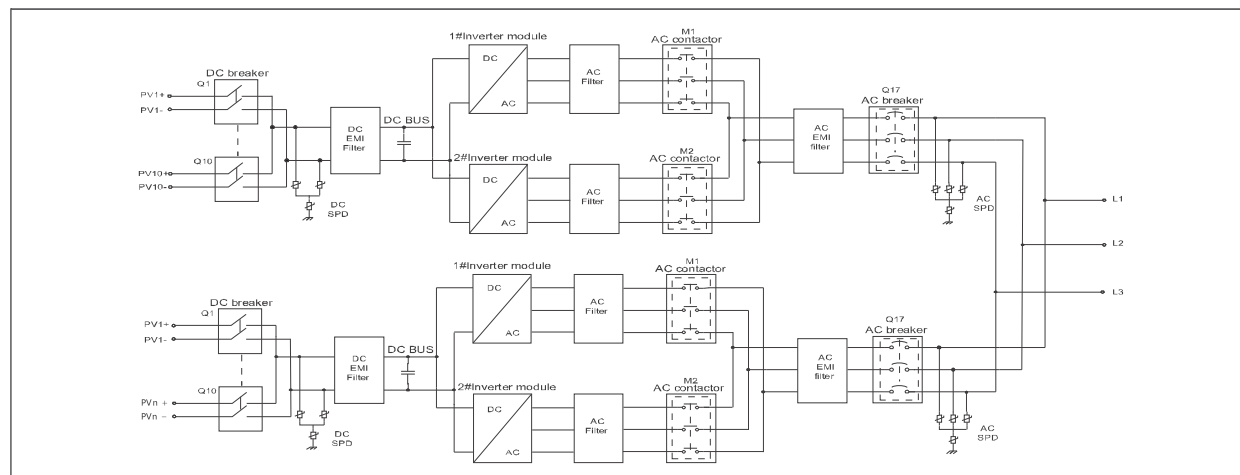
High Efficient Power Generation

- Dormancy function, dormancy at light load and wakeup at heavy load, improve the system efficiency at light load
- I-type three-level technology, the maximum efficiency of the inverter up to 99.0%, using the fifth generation high-temperature and high-efficiency IGBT, effectively improve power generation
- Anti-PID technology, reducing PV modules degradation and the loss of power generation

Lower Cost

- Integrated SVG function, reducing initial investment
- 1500 V voltage grade, reducing the current of DC and AC sides, cutting down distribution cost and the overall system cost
- Connected with double-wound transformer, cutting down nearly 10% of transformer cost

Schematic Diagram



Technical Data

MODEL	EA2500KHV
INPUT (DC)	
MPPT voltage range	800 ~ 1300 Vdc
Number of MPPTs	2
Max. input voltage	1500 Vdc
Number of DC shunt inputs	20 / 24 (selectable)
Starting voltage	840 Vdc
Min. operating voltage	800 Vdc
OUTPUT (AC)	
Rated grid voltage	550 Vac
Allowable grid voltage range	440 ~ 632 Vac (-20% ~ +15%)
Rated output power	2500 kW
Max. AC output power	2750 kW (110% overload)
Max. output current	2886 A
THD	< 3% (at rated power)
Rated grid frequency	50 / 60 Hz
Allowable grid frequency range	45 ~ 55 Hz / 54 ~ 66 Hz
Power factor	0.8 (leading) ~ 0.8 (lagging)
SYSTEM	
Max. efficiency	99.0%
European efficiency	98.7%
IP rating	IP 54
Cooling method	Temperature control forced-air cooling
ENVIRONMENT	
Operating temperature	-30°C ~ +65°C (> 55°C derating)
Relative humidity	0 ~ 95% (non-condensing)
Operating altitude	4500 m (> 3000 m derating)
FUNCTIONS	
Anti-PID and restoration	Optional
Dormancy function	Available (dormancy at light load, wakeup at heavy load)
Soft start function	Available
AC output parallel function	Available
Auxiliary power supply	AC, DC redundant power supply
SVG function	Available
PROTECTIONS	
DC overvoltage protection	Yes
DC overcurrent protection	Yes
Insulation resistance detection	Yes
AC overvoltage protection	Yes
AC output short-circuit protection	Yes
Ground fault detection	Yes
Overtemperature protection	Yes
Grid monitoring	Yes
OTHERS	
Dimensions (W x H x D) mm	3000 x 2591 x 2660
Weight (kg)	5000

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.