1500 V 2.5 MW Central Inverter

MV Pad-Mounted Transformer Integrated

EA2500KTS-35

Features

High Efficient Power Generation

- I-type three-level technology, the maximum efficiency of the inverter up to 99.0%, the European efficiency up to 98.7%
- 1.1 times load operating at 45℃, full load operating at 55℃, using the fifth generation high-temperature and high-efficiency IGBT
- Dormancy function, single module operating at light load and whole unit operating at heavy load, independent operating between each module, effectively extending the life of the device
- Anti-PID technology, reducing PV modules degradation and the loss of power generation
- Optimizing inverter and transformer connection, reducing system loss better

Intelligent & Friendly

- 7-inch LCD display screen, supporting fault alarm, query and download function
- Grid friendly, supporting zero voltage and low voltage ride through
- Adjustable reactive power, power factor from 0.8 leading to 0.8 lagging adjustable

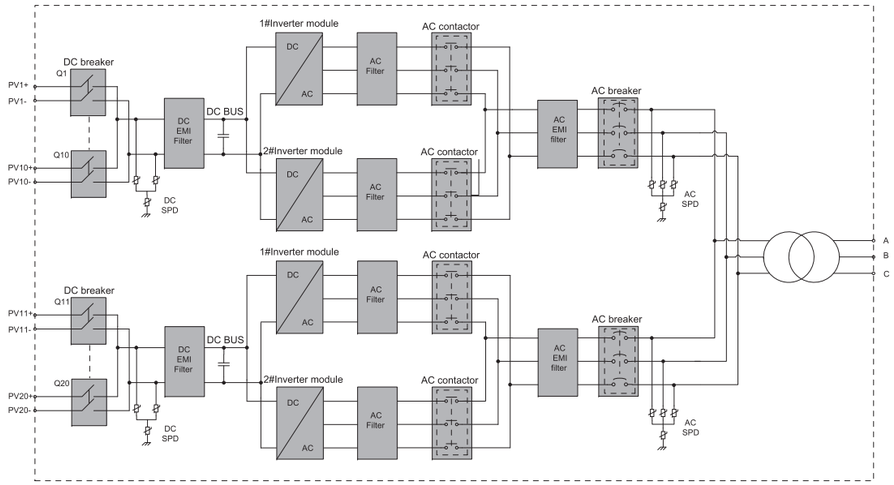
High Reliability

- Multiple dust proof, strict thermal design, moisture-proof, anti-corrosion, salt-spray proof, adapting to harsh natural environment
- Integrated fans featured with online failure detection function and fan temperature control function
- DSP + CPLD full-digital control, multiple and multilevel protections of overcurrent, overvoltage and overtemperature for software and hardware
- Strengthened electrical insulation design for high altitude and high pollution level, allowable maximum altitude up to 4500 m
- CQC, ZVRT, Top-Runner certification approved

Lower Cost

- 1500 V voltage grade, reducing the current of DC and AC sides, cutting down distribution cost and the overall system cost
- Integrated "inverter" with "transformer", shortening construction period
- Unified maintenance for inverter and boost transformer, worry-free for customers
- Integrated SVG function, fully responding to grid dispatching, reducing initial investment

Schematic Diagram



Technical Data

MODEL	EA2500KTS-35
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)	
Grid voltage tolerance	35 kVac
Rated output power	2500 kW
Max. AC output power	2750 kW
Max. output current	45.36 A
THDi	< 3% (at rated power)
Rated grid frequency	50 / 60 Hz
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 for inverter	Temperature control forced-air cooling
TRANSFORMER	
Rated power	2500 kVA
LV / MV voltage	0.55 kV / 37 kV
Transformer vector	Yd11
Insulation class	Class A
Cooling method	ONAN
FUNCTIONS	
Anti-PID and restoration	Optional
Dormancy function	Available
Soft start function	Available
AC output parallel function	Available
Auxiliary power supply	AC, DC redundant power supply
SVG function	Available
Transformer centralized control 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	
Operating temperature	-30℃ ~ +65℃ (> 55℃ derating)
Relative humidity	0 ~ 95% (non-condensing)
Operating altitude	4500 m (> 3000 m derating)
Dimensions (W x D x H) mm	6058 × 2751 × 2600
Weight (kg)	16000

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.