

Grid-Connected PV Inverter

EA50KTLSI



Features

High Availability & Usability

- Integrate with functions of confluence and DC lightning protection, reducing user costs.
- 4 independent MPP trackers with flexible configuration and installation, improving energy generated
- Mobile APP, RS485, USB, Ethernet interface and Wi-Fi wireless communications
- PLC power carrier communication technology, no need of special communication cables.
- Built-in data library, complete saving of daily/weekly/monthly/yearly operation information

High Efficiency Power Generation

- Wide DC input range up to 1100V
- Transformerless design, conversion efficiency up to 99%, Europe efficiency up to 98.7%
- 8 strings of intelligent monitoring and failure detection, which reduces time of fault location and provides accurate and timely detection of the PV panels mismatch
- Integrate with PID elimination function of PV panels, reducing power generation attenuation

Advanced Control Technology

- Continuous regulation (0 ~ 100%) function of active power
- Adaptive control technology, adapting to harsh weak power grids environment
- Meet the various requirements of reactive power regulation, power factor range is 0.8 leading to 0.8 lagging
- LVRT, HVRT and SVG function at night

High Reliability

- DC shut-off circuit breaker for safe and convenient maintenance operating
- Non-fuse design, avoiding risk of fire caused by DC sides failure
- Natural heat convection, no need of external fans
- 5 years standard warranty, 25 years extension warranty

Technical Data

MODEL	EA50KTLSI
INPUT (DC)	
Max. input power	51.5 KW
Max. input voltage	1100 V
Starting voltage	250 V
Max. DC input current	4 × 22 A
MPPT voltage range	200 ~ 1000 V
MPPT voltage range at full-load	600 ~ 850 V
Number of MPPTs	4
Rated DC input voltage	720 V
DC terminals	2 × 8
MPPT efficiency (static)	> 99.9%
Withstanding voltage & insulation for DC input against the enclosure	Basic insulation 3000 Vdc / 1 min
OUTPUT (AC)	
Rated output power	50 KW
Max. apparent power	50.5 KVA
Max. active power (cosφ=1)	50.5 KW
Rated output voltage	3 × 277 / 480 Vac + PE
Rated output current	60.1 A
Max. allowable output current	60.8 A
Rated frequency	50 Hz / 60 Hz
DC component	< 0.5% (rated current)
THD	< 3% (rated power)
Power factor	0.8 leading ~ 0.8 lagging
Withstanding voltage & insulation for AC output sides against the enclosure	Basic insulation 3000 Vdc / 1 min
EFFICIENCY	
Max. inverter efficiency	99%
Europe efficiency	98.7%
PROTECTIONS	
Input reverse connection protection	Yes
DC input switch	Yes
DC overvoltage and overload protection	Yes
Output AC short-circuit protection	Yes
AC overload, overcurrent limitation and protection	Yes
Grid over / under-voltage and unbalanced protection	Yes
Grid over / under-frequency protection	Yes
Leakage protection	Yes
Lightning protection	Yes
Islanding protection	Active and passive protection
DC surge protection	Yes
AC surge protection	Yes
Insulation resistance detection protection	Yes
CERTIFICATES AND APPROVALS	
Certificates	VDE / TUV / CE / CQC
Grid-connected standard	TUV / VDE-AR-N-4105 / G59
EMC / safety	EN 61000-6-2, EN61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, EN / IEC 62109-1, EN / IEC 62109-2
DISPLAY AND COMMUNICATIONS	
Display	LED indicators / APP
RS485	Yes
USB	Yes
PLC	Optional
Wi-Fi	Optional
GPRS	Optional
APP	Yes
OTHERS	
Standby loss	< 15 W
Topology	Transformerless
MTBF	40,000 h
Warranty	5 years (standard), 10 / 15 / 20 / 25 years (optional)
Operating temperature	- 25 ° C ~ + 60 ° C
Cooling	Natural cooling
Relative humidity	0 ~ 100% non-condensing
IP rating	IP 65
Max. operating altitude	5000 m (derating for above 4000 m)
Dimensions (W × D × H) (mm)	640 × 255 × 850
Packaged dimensions (W × D × H) (mm)	735 × 955 × 355
Net weight (kg)	65
Gross weight (kg)	70

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.

