

**Aotai Electric Co.,LTD** 

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# **ABOUT US**

Established in 1993, AOTAI Electric is a leading manufacturer of inverter machines, including both solar inverters and inverter welding machines. As a typical technology-oriented company, its main products reflect development level of cutting-edge technology in this field in China.

With strong R&D team, AOTAI has National R&D testing laboratory, and has achieved over 300 patents. Its solar inverter won National Science and Technology Progress Award in 2016.

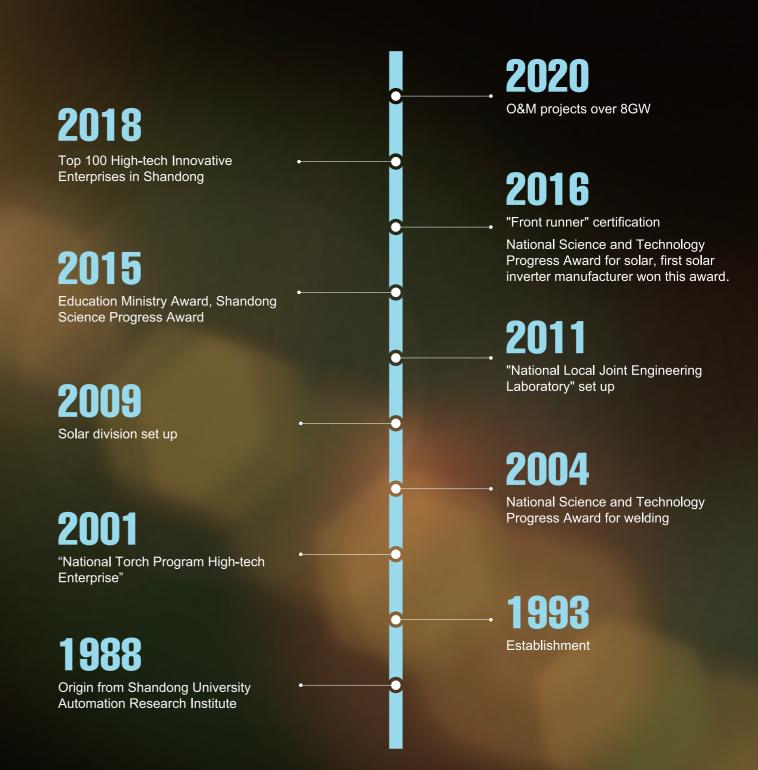
Based in China market, AOTAI has partners and branches in over 128 countries. Its grid-tied solar inverters have been widely used at residential, C&I rooftop projects, and large ground-based projects. Strict quality control, 24/7 service guarantee, flexible support policy greatly ensure benefits of our global partners.





National Science and Technology Progress Award First solar inverter manufacturer won this award.

# Company History





AOTAI

## **Production Process / Quality Control**



AOTAI boasts with whole production lines, from the most original SMT circuit board production to the final high temperature aging test. Its full series of automatic production equipment and refined management of whole process inspection make it achieve international leading technical level.



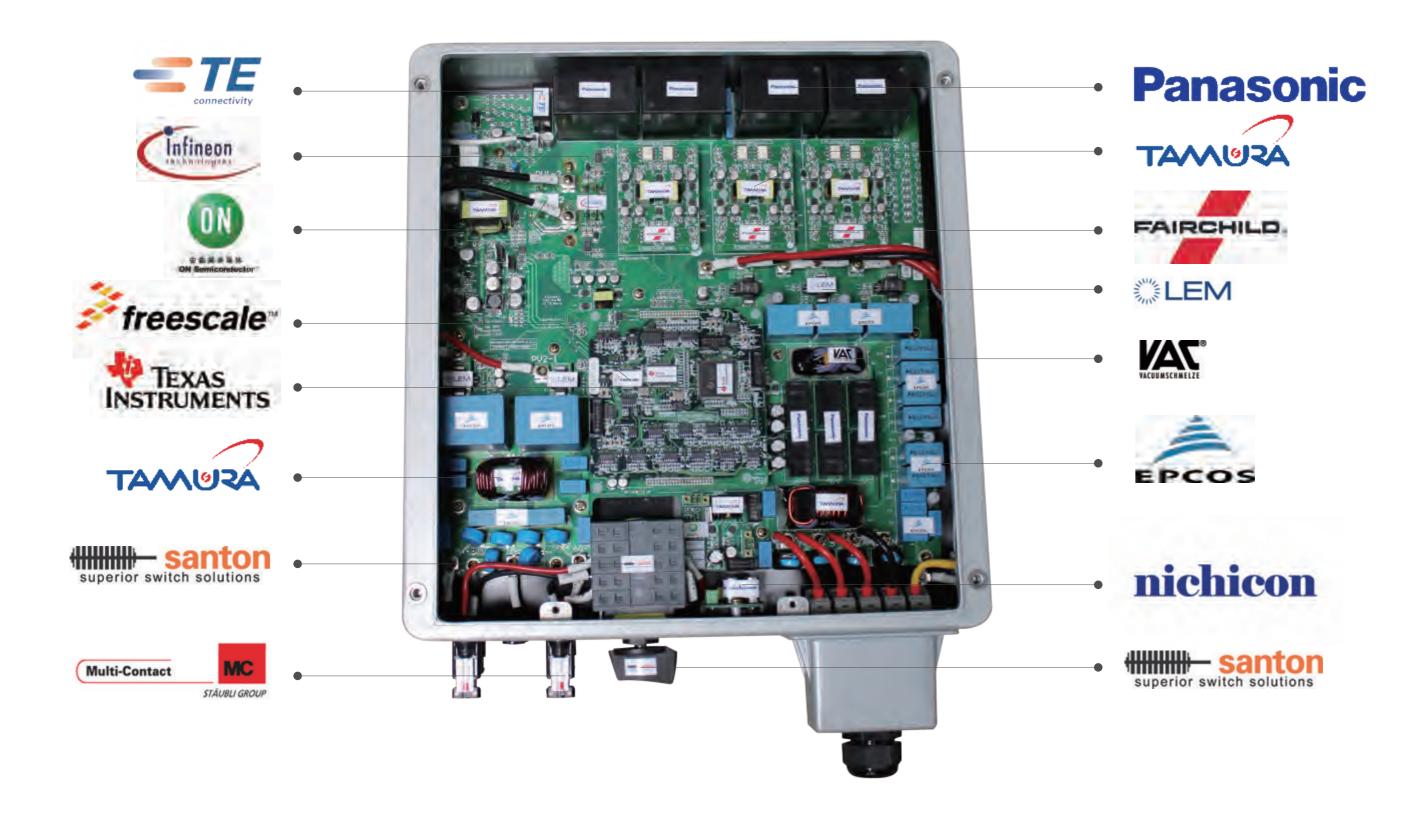
1000+ tests







# Safe And Reliable







300 **Patents** 







**Automation** 



R&D Centers



Morden Production Lines



**Plants** 



# **CONTENTS**

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- Central-Transformerless 13
- Monitoring Information Collector 15
  - Monitoring -ATSolar APP 17
- Monitoring-Remote Monitoring System 18
  - AOTAI Projects Reference 19
  - AOTAI After-sales Service 31

# ASP-4/5/6KTLD



### **FEATURES**











### Flexible design

Small size, light weight, support manual installation, reduce user installation and maintenance cost Multi-communication interface: Rs485, GPRS(optional),Wifi (optional)
DC breaker, easy to maintain and safe to use

Convection without fan Digital DSP control technology Transformerless, max. Euro. efficiency is up to

### Efficient conversion

efficiency is up to 98.1%;

Total current THD <2%

islanding protection

### Grid friendly

Active and passive anti-Continuously adjustable active power (0~100%) function

### **Excellent qualities**

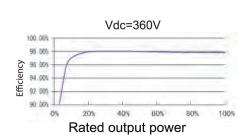
CQC Golden Sun Certification, TUV Certification, SAA Certification, CE Certification







### **EFFICIENCY CURVE**





### TECHNICAL DATA

Model Name	4KTLD	5KTLD	6KTLD		
Input					
Max. DC input power	5200W	6500W	7200W		
Max. DC input voltage		580V			
Max. DC input current		2X13.5A			
MPPT voltage range		80~550V			
Recommended MPP operating voltage		360V			
No.of MPPT	2				
Max. no. of strings per MPPT		1			
Output					
Rated output power	4000W	4000W 5000W 6000W			
Max. output power	4.4KVA	4.4KVA 5.5KVA 6KVA			
Max. output current	20A	20A 25A 27A			
Rated grid voltage		230V			

160~270Vac (adjustable)

50Hz/60Hz

45~55Hz/55~65Hz

< 2% (Under the rated power) > 0.99 (Under the rated power)

< 0.5% (Under the rated power)

### System data

Power factor DC current injection

THD

Grid voltage range

Rated grid frequency

Grid frequency range

Max. efficiency	98.1%
Euro. efficiency	97.5%
Humidity range	0-95% non-condensing
Cooling type	Air cooling
Temperature range	-25~+60℃
Power consumption at night	< 1W
Max. working altitude	4000m (Derating above 2000m)
Display	Two line LCD/Two LEDS/One voice operated switch
Communication interface	RS485/GPRS(optional)/Wifi(optional)

### Protection

DC reverse-polarity protection	Yes
Short circuit protection	Yes
Output over current protection	Yes
Output over voltage protection	Yes
Insulation resistance monitoring	Yes
Residual current detection	Yes
Surge protection	Yes
Grid monitoring	Yes
Islanding protection	Yes
Temperature protection	Yes
Integrated DC switch	Optional

#### Mechanical data

Dimensions (WxHxD)	377x430x180mm
Weight	14Kg
Protection class	IP65

### Standard

Grid-connected standard	NB/T32004-2018; GB/T19964-2012
Safety standard	NB/T32004-2018; IEC 62109-1/2
Electromagnetic compatibility	IEC 61000-6-2/4

# ASP-7/8KTLD



### **FEATURES**









### Flexible design

Small size, light weight, support manual installation, reduce user installation and maintenance cost Multi-communication interface: GPRS(optional), Wifi (optional) DC breaker, easy to maintain and safe to use

Convection without fan Digital DSP control technology

### Efficient conversion

Transformerless, max. efficiency is up to 98.1%; Euro. efficiency is up to 97.6%

Total current THD <2%

### Grid friendly

Active and passive antiislanding protection Continuously adjustable active power (0~100%) function

### **Excellent qualities**

CQC Golden Sun Certification, TUV Certification, SAA Certification, CE Certification

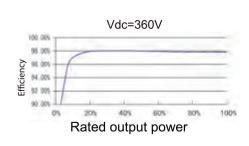


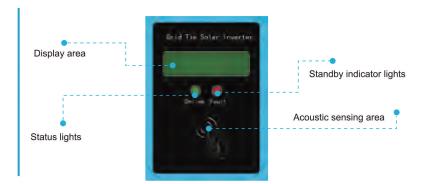






### **EFFICIENCY CURVE**





### TECHNICAL DATA

Model Name	7KTLD	8KTLD	
Input			
Max. DC input power	8000W	9200W	
Max. DC input voltage	580V		
Max. DC input current	27/13.5A		
MPPT voltage range	8	80~550V	
Recommended MPP operating voltage		360V	
No.of MPPT		2	
Max. no. of strings per MPPT		2/1	
Output			
Rated output power	7000W	8000W	
Max. output power	7.7KVA	8.8KVA	
Max. output current	33A	36A	
Rated grid voltage		230V	
Grid voltage range	160~270\	Vac (adjustable)	
Rated grid frequency		Hz/60Hz	
Grid frequency range		Hz/55~65Hz	
THD		er the rated power)	
Power factor		er the rated power)	
DC current injection	< 0.5% (Under the rated power)		
System data	10.070 (0110	or the rated power)	
Max. efficiency		98.1%	
Euro. efficiency		97.6%	
Humidity range	0-95% non-condensing		
Cooling type	Air cooling		
Temperature range	-25~+60°C		
Power consumption at night	< 1W		
	< 1W 4000m (Derating above 2000m)		
Max. working altitude Display			
Communication interface	Two line LCD/Two LEDS/One voice operated switch RS485/GPRS(optional)/Wifi(optional)		
Protection	113403/31 113(0	puonar// wiii(opuonar)	
	,	Was	
DC reverse-polarity protection		Yes Yes	
Short circuit protection		Yes	
Output over current protection			
Output over voltage protection Insulation resistance monitoring		Yes Yes	
Residual current detection			
Surge protection		Yes	
		Yes	
Grid monitoring Islanding protection	Yes		
Temperature protection	Yes		
Integrated DC switch	Yes		
Mechanical data	Yes		
	0.7740	20v220mm	
Dimensions (WxHxD)	377x430x220mm		
Weight Protection class	18Kg		
Protection class		P65	
Standard  Crid connected standard	ND/T00004-0044	P. CR/T10064 2012	
Grid-connected standard	NB/T32004-2018; GB/T19964-2012		
Safety standard	NB/T32004-2018; IEC 62109-1/2		

IEC 61000-6-2/4

3

Electromagnetic compatibility

# **ASP-8/10/12KTLC**



### **FEATURES**



Flexible design







Excellent qualities

Multi-communication interface: RS485, GPRS(optional), Wifi (optional) DC breaker, easy to maintain and safe to use

efficiency is up to 98.5%; Euro. efficiency is up to Total current THD <2% Three-level SVPWM control Digital DSP control technology technology, increase DC voltage utilization

Transformerless, max.

power factor from 0.8 leading TUV Certification, to 0.8 lagging SAA Certification, CE Active and passive antiislanding protection

Grid friendly

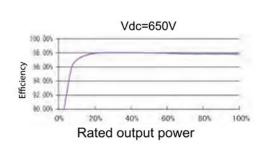
Adjustable reactive power, CQC Golden Sun Certification, Certification

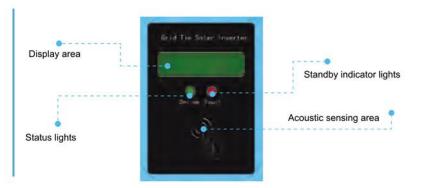






### **EFFICIENCY CURVE**





### TECHNICAL DATA

Model Name	8KTLC	10KTLC	12KTLC	
Input		1		
Max. DC input power	10400W	13000W	15600W	
Max. DC input voltage	1000V			
Max. DC input current	13.5	27/13.5A		
MPPT voltage range	250~950V			
Recommended MPP operating voltage		650V		
No.of MPPT		2		
Max. no. of strings per MPPT		1	2/1	
Output				
Rated output power	8000W	10000W	12000W	
Max. output power	8.8KVA	11KVA	13.2KVA	
Max. output current	13A	16A	19.2A	
Rated grid voltage		400V		
Grid voltage range		310~480Vac		
Rated grid frequency		50Hz/60Hz		
Grid frequency range		45~55Hz/55~65Hz		
THD		< 2% (Under the rated power	)	
Power factor	>0.99(under	the rated power)/0.8 leading		
DC current injection	< 0.5% (Under the rated power)			
System data			,	
Max. efficiency		98.5%		
Euro. efficiency		98%		
Humidity range	0-95% non-condensing			
Cooling type	Air cooling			
Temperature range	-25~+60℃			
Power consumption at night	< 1W			
Max. working altitude	4000m (Derating above 2000m)			
Display	Two line LCD/Two LEDS/One voice operated switch			
Communication interface		485/GPRS(optional)/Wifi(optional)		
Protection		, , , , , , , , , , , , , , , , , , ,	3137	
DC reverse-polarity protection		Yes		
Short circuit protection		Yes		
Output over current protection		Yes		
Output over voltage protection		Yes		
Insulation resistance monitoring		Yes		
Residual current detection		Yes		
Surge protection		Yes		
Grid monitoring		Yes		
Islanding protection		Yes		
Temperature protection		Yes		
Integrated DC switch	Yes			
Mechanical data		103		
Dimensions (WxHxD)		517x510x191mm		
Weight		25Kg		
Protection class	IP65			
Standard		11 00		
Grid-connected standard		IEC 61727.IEC 62116		
Safety standard		IEC 62109-1/2		
The standard	IEO 02 109-1/2			

IEC 61000

5

Electromagnetic compatibility

# **ASP-15/17/20KTLC**



### **FEATURES**





Efficient conversion





Flexible design

Multi-communication interface: RS485, GPRS(optional), Wifi (optional) Intelligent forced air cooling DC breaker, easy to maintain and safe to use Digital DSP Control

Transformerless, max. efficiency is up to 98.5%; Euro. efficiency is up to

Total current THD <2% Three-level SVPWM control technology, increase DC voltage utilization

Adjustable reactive power, power factor from 0.8 TUV Certification, SAA leading to 0.8 lagging Active and passive

anti-islanding protection

Grid friendly

CQC Golden Sun Certification, Certification, CE Certification

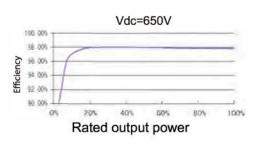
**Excellent qualities** 

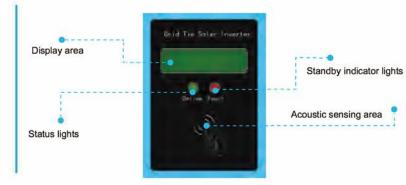






### **EFFICIENCY CURVE**





Model Name	15KTLC	17KTLC	20KTLC		
Input					
Max. DC input power	18000W	20400W	24000W		
Max. DC input voltage		1000V			
Max. DC input current	27/13.5A	27/2	7A		
MPPT voltage range		250~950V			
Recommended MPP operating voltage		650V			
No.of MPPT		2			
Max. no. of strings per MPPT	2/1	2/	2		
Output					
Rated output power	15000W	17000W	20000W		
Max. output power	16.5KVA	18.7KVA	22KVA		
Max. output current	24A	28A	33A		
Rated grid voltage		400V			
Grid voltage range	310~480Vac				
Rated grid frequency	50Hz/60Hz				
Grid frequency range	45~55Hz/55~65Hz				
THD	< 2% (Under the rated power)				
Power factor	>0.99(under the rated power)/0.8 leading ~ 0.8 lagging				
DC current injection	< 0.5% (Under the rated power)				
System data					
Max. efficiency		98.5%			
Euro. efficiency		98%			
Humidity range		0-95% non-condensing			
Cooling type		Intelligent forced air cooling			
Temperature range		-25~+60℃			
Power consumption at night		< 1W			
Max. working altitude	4000m	Operation with derating above	e 2000m)		
Display	Two line L	.CD/Two LEDS/One voice ope	rated switch		
Communication interface	RS	6485/GPRS(optional)/Wifi(optional)	onal)		
Protection					
DC reverse-polarity protection		Yes			
Short circuit protection	Yes				
Output over current protection	Yes				
Output over voltage protection	Yes				
Insulation resistance monitoring	Yes				
Residual current detection	Yes				
Surge protection	Yes				
Grid monitoring	Yes				

### Mechanical data

Islanding protection Temperature protection

Integrated DC switch

Dimensions (WxHxD)	517x510x191mm
Weight	25Kg
Protection class	IP65

Yes

Staridard		
Grid-connected standard	NB/T32004-2018; GB/T19964-2012	
Safety standard	NB/T32004-2018; IEC 62109-1/2	
Electromagnetic compatibility	IEC 61000-6-2/4	

# ASP-25/27/30/33/36/40KTLC



### **FEATURES**



### Flexible design

Multi-communication interface:

RS485, GPRS(optional), Wifi (optional) DC breaker, easy to maintain and Integrated functions of combiner box& DC lightning protection, reduce technology, increase DC system cost for users



### Efficient conversion

Transformerless, max. efficiency is up to 98.8%; Euro. efficiency is up to 98.3% Total current THD <2% Three-level SVPWM control islanding protection

voltage utilization



### Grid friendly

LVRT function Adjustable reactive power, TUV Certification, SAA power factor from 0.8 leading to 0.8 lagging Active and passive anti-



### CQCTUV SAACE **Excellent qualities**

CQC Gold Sun Certification, Certification, CE Certification





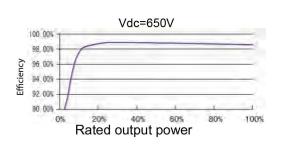




Standby indicator lights

### **EFFICIENCY CURVE**

9





### **TECHNICAL DATA**

Model Name	25KTLC	27KTLC	30KTLC	33KTLC	36KTLC	40KTLC	
Input							
Max. DC input power	30000W	32400W	36000W	39600W	43200W	48000W	
Max. DC input voltage		1000V					
MPPT voltage range		250~950V					
Max. DC input current		2X40.5A 2X40.5A					
Recommended MPP operating voltage			6	50V			
No. of MPPT				2			
Max. no. of strings per MPPT		3			;	3	
Output							
Rated output power	25000W	27000W	30000W	33000W	36000W	40000W	
Max. output power	27.5KVA	29.7KVA	33KVA	36.3KVA	39.6KVA	44KVA	
Max. output current	42A	45A	50A	52.5A	57A	61A	
Rated grid voltage			40	0V			
Grid voltage range			310~4	80Vac			
Rated grid frequency			50Hz	/60Hz			
Grid frequency range				/55~65Hz			
THD				ne rated power)			
Power factor		>0.99(under		er)/0.8 leading ~	~ 0.8 lagging		
DC current injection				the rated power			
System data			- 0.070 (Olider )	ine rated power	,		
Max. efficiency	98.5%	98.6%	98.7%	98.7%	98.8%	98.8%	
	98%	98.1%	98.2%	98.2%	98.2%	98.3%	
Euro. efficiency	90 70	30.170	0-95% non-		30.270	30.570	
Humidity range				_			
Cooling type		Intelligent forced air cooling -25∼+60℃					
Temperature range							
Power consumption at night		< 1W 4000m(Operation with derating above 2000m)					
Max. working altitude							
Display  Communication interface				One voice opera			
Protection		K54	485/GPRS(opti	onal)/Wifi(optior	nai)		
			V				
DC reverse-polarity protection			Yes				
Short circuit protection			Yes				
Output over current protection			Yes				
Output over voltage protection			Yes				
Insulation resistance monitoring			Yes				
Residual current detection			Yes				
Surge protection			Yes				
Grid monitoring			Yes				
Islanding protection			Yes				
Temperature protection			Yes				
Integrated DC switch			Yes				
Mechanical data							
Dimensions (WxHxD)			478x752x	208mm			
Weight			39K	g			
Protection class		IP65 (outdoor)					
Standard							
Grid-connected standard		NB/T32004-2018; GB/T19964-2012					
Safety standard		NB/T32004-2018; IEC 62109-1/2					
Electromagnetic compatibility		IEC 61000-6-2/4					

# ASP-50/60KTLC



### **FEATURES**









**Excellent qualities** 

### Flexible design

Multi-communication interface: RS485, GPRS(optional), Wifi (optional) DC breaker, easy to maintain and safe to use Integrated functions of combiner box& DC lightning protection, reduce technology, increase DC system cost for users

### Efficient conversion

Euro. efficiency is up to 98.5% Total current THD <2% Three-level SVPWM control islanding protection voltage utilization

Transformerless, max.

efficiency is up to 98.9%;

### Grid friendly

active power(0-100%)function

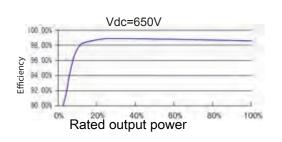
LVRT HVRT function CQC Golden Sun Certification, Adjustable reactive power, TUV Certification, SAA power factor from 0.8 leading Certification, CE Certification to 0.8 lagging Active and passive anti-Continuously adjustable

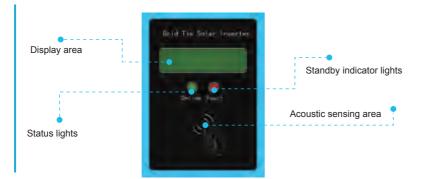






### **EFFICIENCY CURVE**





### **TECHNICAL DATA**

Model Name	50KTLC	60KTLC
Input		
Max. DC input power	65000W	72000W
Max. DC input voltage	1	000V
Max. DC input current	120A	n(4X30A)
MPPT voltage range	300	)~950V
Recommended MPP operating voltage	6	650V
No. of MPPT		4
Max. no. of strings per MPPT		2

### Output

Rated output power	50000W	60000W
Max. output power	55KVA	66KVA
Max. output current	80A	96A
Rated grid voltage	40	00V
Grid voltage range	310~	480Vac
Rated grid frequency	50Hz	z/60Hz
Grid frequency range	45~55Hz	z/55~65Hz
THD	< 2% (Under t	he rated power)
Power factor	>0.99(rated power) /0	.8 leading ~ 0.8 lagging
DC current injection	< 0.5% (Under	the rated power)

#### System data

Max. efficiency	98.7%	98.9%
Euro. efficiency	98.3%	98.5%
Humidity range	0-95% nor	n-condensing
Cooling type	Intelligent for	rced air cooling
Temperature range	-25~	-+60℃
Power consumption at night	<	1W
Max. working altitude	4000m(Operation with	derating above 3000m)
Display	Two line LCD/Two LEDS	One voice operated switch
Communication interface	RS485/GPRS(op	tional)/Wifi(optional)

#### Protection

Yes
Yes

### Mechanical data

Dimensions (WxHxD)	670x960x300mm
Weight	75Kg
Protection class	IP65

### Standard

Grid-connected standard	NB/T32004-2018; GB/T19964-2012
Safety standard	NB/T32004-2018; IEC 62109-1/2
Electromagnetic compatibility	IEC 61000-6-2/4

### Central-Transformerless

# ASP-500KTL





### **FEATURES**









Flexible design

Independent unit modular design, unit can operate individually, improve whole machine availability

Imported IGBT components, driver is High efficient reactor, over imported from

Germany, more stable and reliable Film capacitors increase the system life span

### Efficient conversion

Max. efficiency is 98.8% Min. loss PWM modulation NB/T32004-2018 test loss

capacity design, reduce output loss Optimized copper bar structure design, reduce

cable loss

arithmetic, reduce switching LVRT/ZVRT function to cope maintenance with various grid conditions Nightly SVG function, respond to grid dispatching instruction all time AGC/AVC function, realize active power adjustable range from 0~100%

### Grid friendly

Pass new standard Power factor from 0.9 leading to 0.9 lagging

### More advantages

Open the front door to

maintain, easy installation and Dual power supply method, improve system reliability Nightly intelligent hibernation technology, reduce loss China Energy Efficiency Rate Certification, CQC Golden Sun Certification, CE Certification,

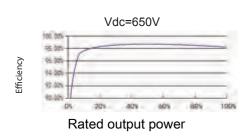




State Grid Certification



### **EFFICIENCY CURVE**



### **TECHNICAL DATA**

Model Name	500KTL
Input	
Max. DC input power	550KW
Max. DC input voltage	1000V
Max. DC input current	1100A
MPPT voltage range	500~850V
Recommended MPP operating voltage	650V
No. of MPPT	1

#### Output

500KW
550KVA
1008A
315V
250~362Vac
50Hz/60Hz
47~51.5Hz/57~61.5Hz
< 2% (Under the rated power)
>0.99(rated power) /0.9 leading ~ 0.9 lagging
< 0.5% (Under the rated power)

### System data

System data		
	Max. efficiency	98.8%
	Euro. efficiency	98.3%
	Humidity range	0-95% non-condensing
	Cooling type	Intelligent forced air cooling
	Temperature range	-25~+55℃
	Power consumption at night	< 100W
	Max. working altitude	6000m(Operation with derating above 3000m)
	Display	Touch screen
	Communication interface	RS485/ Ethernet

### Protection

DC reverse-polarity protection	Yes
Short circuit protection	Yes
Output over current protection	Yes
Output over voltage protection	Yes
Insulation resistance monitoring	Yes
Residual current detection	Yes
Surge protection	Yes
Grid monitoring	Yes
Islanding protection	Yes
Temperature protection	Yes
Integrated DC switch	Yes

### Mechanical data

Dimensions (WxHxD)	1000x1960x800mm
Weight	1000Kg
Protection class	IP20

### Standard

Grid-connected standard	NB/T32004-2018; GB/T19964-2012
Safety standard	NB/T32004-2018; IEC 62109-1/2
Electromagnetic compatibility	IEC 61000-6-2/4

# Monitoring - Information Collector

# GPRS/Wifi/NET RTU GPRS/Wifi RTU-USB



### PRODUCT INTRODUCTION

Information collector is used for data collection and monitoring of solar inverters, combiner box and environment monitor in PV power stations. This device has RS485/Ethernet, and USB data communication interfates makes it compatible with many equipments and reduce system cost

### **TECHNICAL DATA**

Model Name	GPRS/WiFi/NET RTU	GPRS/WiFi RTU-USB
Communication		
Inverter communication	RS485	
PC communication	-	
Server	GPRS/ WiFi/ Ethernet	GPRS/ WiFi
Max. number of connections		
RS485 terminal	32	1
Max. communication range		
RS485	1200m	0m
Ethernet	-/-/ 100m	-
Wireless (open field)	unlimited/ 20m/ -	unlimited/ 20m
Power supply		
Power module	AC 220V to DC 12V	
Input voltage	DC12V	DC12V
Power consumption	1W(avg)/ 3W( max)	
Environmental conditions		
Ambient temperature	-20~+60℃	
Humidity	0~95%,non-condensing	
Other data		·
Dimensions (WxHxD)	145x72x28mm	79x59x26mm
Weight	390g	10g
Protection class	IP20	IP65(after installation)
Installation	Wall bracket, tabletop	On the inverter
Language versions–software/manual	Chinese, English	

AOTAI

### Monitoring – ATSolar APP

# **ATSolar APP**



### **FEATURES**

- · Delicate interface, precise data, easy to operate, download and install, real-time monitoring, data synchronism
- 24-hour monitoring
- · Real-time update of weather forecast
- · Rich data output interfaces, support Android, IOS
- Low maintenance cost
- Periodic refresh of dynamic information
- Power station information sharing function

### PRODUCT INTRODUCTION

ATSolarAPP is intelligent terminal for PV power station monitoring and management person. It help user master PV power station running status at anytime and anywhere, realize remote data monitoring of PV power station, ensure convenient management and monitoring timeliness. System displays PV power station running data by visual table, includes power station power generation, benefit, CO2 emission reduction benefit, equipment running status, equipment real-time data, history data query, power generation comparison, equipment performance comparison. As fashion and intelligent application, it can let user demonstrate his PV power station at any occasion, user has intuitive feeling, enhance user confidence.

### Monitoring-Remote Monitoring System

# AT Solar Info PV power station monitoring system



### **FEATURES**







Precise data statistic





### Inverter management

Nobody monitoring needs, 7X24h stable running Manage grid-connected inverter, add data of newly communication net connected inverter to management system by add function, also can move current inverter data output of management system by delete function.

Real-time system monitoring

Information monitoring This function can make function real-time monitor statistic history data of system, display system inverter on a certain running parameter, know time range, and output system running status by Excel format precisely by displayed Information collection and management of combiner box. DC distribution cabinet, inverter, transformer,

#### Detailed history tracking

Take out system data in a certain time duration, and display in curve type, user can know system running efficiency

### Precise design

Friendly interface, easy to operate, integrated power station monitoring, running, management, provide better operation experience

### PRODUCT INTRODUCTION

This system includes inverter, communication network and upper computer, has advantages like high real-timeliness, high reliability, simple wiring and remote monitoring and management. With communication technology, auto-control technology, computer technology, to realize PV power station monitoring, running and management functions, provide economic, reliable and safe solution for PV power station intelligent, automating, unmanned management. This APP suits for all kinds of PV power station, provides PV integrated monitoring and running program, realize complete real-time monitoring, control and management for PV power station.

Login http://aotaicloud.com/ATSolarInfo/, to realize real-time monitoring and management for your power station.





35 MW & China



**30** kw





**10** kw









180 kw























**20** MW





**30** MW













2 MW





**200** kw





300 KW







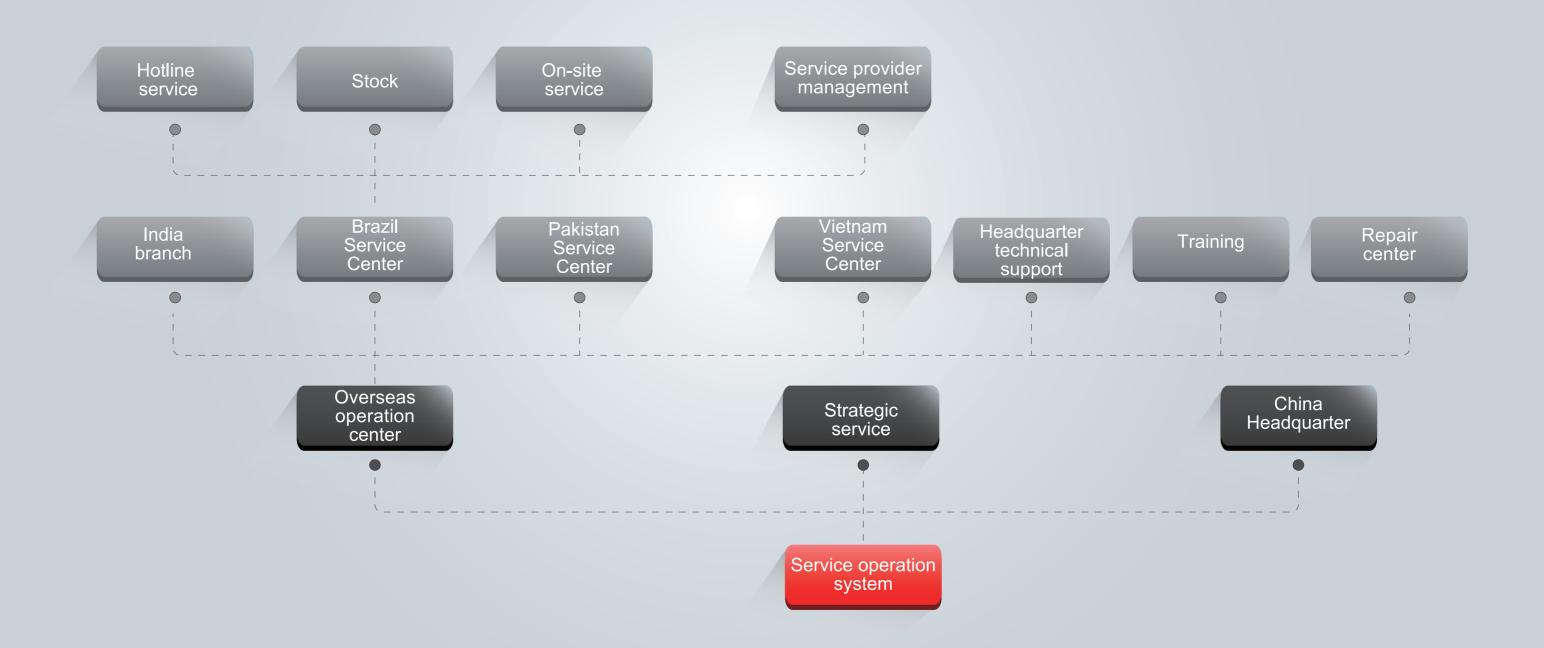








# Service guarantee —Service system



# Service guarantee —Service system

24/7

