



SENTA ENERGY

Senta Energy is located in Wuxi, the largest solar Power industry base in China. Senta Energy is a hightech enterprise mainly engaged in Solar power and Energy storage products, New building prefabricated houses and New agricultural distributed planting business.

Storage company: Sendo ESS

Energy storage, Battery pack, Portable power supply, Inverter, System integration, etc



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SOLAR INVERTER SERIES

**POWER BOX
POWER LIFE**

- SINGLE PHASE ON GRID INVERTER
- THREE PHASE ON GRID INVERTER
- SINGLE PHASE HYBRID INVERTER
- THREE PHASE HYBRID INVERTER

■ S1000-6000TL



Big LCD display



Power export limit



Compact and easy to install



Wifi / GPRS / Lan communication optional



Great reliability



Good safety and quality



Specifications

Model	S1000TL	S1500TL	S2200TL	S3000TL	S3600TL	S4400TL	S5000TL	S6000TL
DC Side/Input Parameters								
Max DC power(W)	1500	2250	3300	4500	5400	6600	7500	7500
Max DC voltage (Vdc)	450	450	500	500	500	500	500	500
Min System start/Shut down voltage(Vdc)	65/70	75/100	75/100	75/100	75/100	75/100	75/100	75/100
MPPT voltage range(Vdc)	70~450	100~450	100~450	100~450	100~450	100~450	100~450	100~450
Max.input current(A)	13							
Number of MPP trackers	1	1	1	1	2	2	2	2
Strings per MPP tracker	1	1	1	1	1	1	1	1
AC Side/Output Parameters								
Nominal output power (W)	1000	1500	2200	3000	3600	4000	5000	6000
Maximum output power (W)	1100	1650	2420	3300	3960	4400	5500	6600
Nominal output voltage/range (V)	208,220,230,240/180-270							
AC grid frequency/range (Hz)	50Hz,60Hz(auto-selection)/44Hz-55Hz; 54Hz-65Hz							
Maximum output current (A)	6	8	12	16	16	21	23	26
AC connection(with PE)	Single phase							
Current distortion(THDi)	<1.5%	<1.5%	<1.5%	<1.5%	<2.5%	<2.5%	<2.5%	<2.5%
Power factor	~1%(Adjustable from 0.8 leading to 0.8 lagging)							
Efficiency								
Maximum conversion efficiency	97.3%	97.3%	97.4%	97.5%	97.8%	97.8%	97.5%	97.6%
European efficiency	97.0%	97.0%	97.1%	97.2%	97.3%	97.3%	97.2%	97.3%
MPPT efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Safety and Protection								
DC reverse-polarity protection	yes							
Anti-islanding/Overvoltage protection	yes							
Short circuit protection	yes							
Leakage current protection	yes							
Grid monitoring/Ground fault monitoring	yes							
DC/AC side SPD(thermally protected)	yes							
General Parameters								
Dimension (L/W/H)(mm)	370/277/115				434/340/115			
Weight(kg)	7				8			
Embedded DC Switch	Optional							
Night power consumption (W)	<0.2							
Isolation type	Transformerless							
Protection degree	IP65 according to IEC60529							
Operation temperature(°C)	-25°C~+60							
Cooling concept	Natural convection							
Operating Altitude (m)	<2000m without power derating							
Acoustic noise level (dB)	<25							
Display	Graphic LCD							
Communication interface	Standard WiFi; RS485(optional)							
Warranty	5 years; 5/7/10 years for optional							
Certificates and Approvals:								
CE-(EMC/LVD) : EN(IEC) 61000-1/-2/-3/; EN(IEC) 62109-1/-2								

■ TP-4-10KTL



Big LCD display



Power export limit



Compact and easy to install



Wifi / GPRS / Lan communication optional



Great reliability



Good safety and quality



Specifications

Model	TP4KTL	TP5KTL	TP6KTL	TP8KTL	TP10KTL
Input (DC)					
Max DC power (W)	6000	7500	9000	12000	15000
Max DC voltage(Vdc)	1000	1000	1000	1000	1000
Min working voltage(Vdc)	250	250	250	250	250
MPPT voltage range(Vdc)	250~850	250~850	250~850	250~850	250~850
Max input current / per string(A)	13/13	13/13	13/13	13/13	13/13
Number of MPP trackers	2	2	2	2	2
Strings per MPP tracker	1	1	1	1	1
Output (AC)					
AC nominal power (W)	4000	5000	6000	8000	10000
Max AC apparent power (VA)	5000	6000	7000	8800	11000
Max output current (A)	8	10	12	15	17
Nominal AC output	50/60 Hz; 400 Vac				
AC output range	45/55 Hz ; 280 ~ 490 Vac (Adj)				
Power factor	0.8leading...0.8lagging				
Harmonics	<5%				
Grid type	3 W/N/PE				
Efficiency					
Max efficiency	98.0%	98.2%	98.2%	98.3%	98.4%
Euro efficiency	97.5%	97.7%	97.7%	97.8%	97.9%
MPPT efficiency	99.9%	99.9%	99.9%	99.9%	99.9%
Safety and Protection					
DC reverse-polarity protection	yes				
DC breaker	yes				
DC / AC SPD	yes				
Leakage current protection	yes				
Insulation impedance detection	yes				
Residual current protection	yes				
General Parameters					
Dimension (W/H/D)(mm)	480/400/180				
Weight (kg)	22				
Operating temperature range (°C)	-25 ~ +60				
Degree of protection	IP65				
Cooling concept	Natural convection				
Topology	Transformerless				
Display	LCD				
Humidity	0-95%, no condensation				
Communication	Standard WiFi; GPRS/LAN(optional)				
Warranty	Standard 5 years; 7/10 years optional				

Certificates and Approvals:

CE, IEC61000, IEC62109, CQC, VDE-AR-N4105, VDE0126-1-1, IEC62116, EN50549

■ TP15-25KTL



Big LCD display



Power export limit



Compact and easy to install



Wifi / GPRS / Lan communication optional



Great reliability



Good safety and quality



Specifications

Model	TP15KTL	TP20KTL	TP25KTL
Input (DC)			
Max DC power (W)	22500	30000	30000
Max DC voltage(Vdc)	1000	1000	1000
Min working voltage(Vdc)	200	200	200
MPPT voltage range(Vdc)	200~850	200~850	200~850
Max input current / per string(A)	26/20	26/26	36/26
Number of MPP trackers	2	2	2
Number of input string	3	4	4
Output (AC)			
AC nominal power (W)	15000	20000	25000
Max AC apparent power (VA)	16500	22000	27500
Max output current (A)	23	30	36
Nominal AC output	50/60 Hz; 400 Vac		
AC output range	45/55 Hz ; 280 ~ 490 Vac (Adj)		
Power factor	0.8leading...0.8lagging		
Harmonics	< 1.5%		
Grid type	3 W/N/PE		
Efficiency			
Max efficiency	98.5%	98.6%	98.7%
Euro efficiency	98.0%	98.1%	98.2%
MPPT efficiency	99.9%	99.9%	99.9%
Safety and Protection			
DC reverse-polarity protection	yes		
DC breaker	yes		
DC / AC SPD	yes		
Leakage current protection	yes		
Insulation impedance detection	yes		
Residual current protection	yes		
General Parameters			
Dimension (W/H/D)(mm)	520/510/155		
Weight (kg)	25		
Operating temperature range °C	-25 ~ +60		
Degree of protection	IP65		
Cooling concept	Natural convection		
Topology	Transformerless		
Display	LCD		
Humidity	0-95%, no condensation		
Communication	Standard WiFi; GPRS/LAN(optional)		
Warranty	Standard 5 years; 7/10 years optional		

Certificates and Approvals:

CQC, VDE-AR-N4105, VDE0126-1-1, IEC61727,IEC62116,EN50438,EN50549

■ R3KL1-R6KL1



Big LCD display



Power export limit



Compact and easy to install



Wifi / GPRS / Lan communication optional



Great reliability



Good safety and quality



Specifications

Model	R3KL1	R3K6L1	R4KL1	R4K6L1	R5KL1	R6KL1
Input (PV)						
Max. power(kW)	4.6	4.6	6	6	7	7
Max. DC voltage(V)	550					
MPPT voltage range(V)	125~500					
Max.input current of single MPPT(A)	14					
MPPT tracker/strings	2/1					
Output (AC)						
Rated output power(kVA)	3	3.68	4	4.6	5	6
Max. output current(A)	13	16	17.4	20	21.7	26
Grid voltage range(V)	230/176~270					
Frequency (Hz)	50 /60					
Power factor	0.8lagging-0.8leading					
THDi	<3%					
Grid type	L+N+PE					
Battery						
Battery voltage range(V)	40~58					
Max.charging voltage(V)	58					
Max.charge/discharge current(A)	95/62.2	95/75	95/83.3	95/95.8	95/104.2	95/110
Battery type	lithium /Lead-acid					
Communication interface	CAN/RS485					
EPS output						
Rated power (kVA)	3	3.68	4	4.6	5	6
Rated output voltage(V)	230					
Rated output current(A)	13	16	17.4	20	21.7	26
Rated frequency (Hz)	50 /60					
Automatic switching time (ms)	<20					
THDu	<2%					
Overload capacity	110%, 30S/120%, 10S/150%, 0.02S					
General data						
Battery charge/discharge efficiency	95.0%					
DC Max. efficiency	97.6%					
Europe efficiency	97.0%					
MPPT efficiency	99.9%					
Protection degree	IP65					
Noise emission (dB)	<35					
Operation temperature	- 25°C ~ 60°C					
Cooling	Natural					
Relative humidity	0 ~95% (non-condensation)					
Altitude	2,000m(>2,000 Derating)					
Dimensions W*D*H (mm)	550*200*515					
Weight (kg)	25					
Isolation transformer	No					
Self-consumption(W)	<3					
Display and communication						
Display	LCD					
Communication:RS485/Wifi/4G/CAN/DRM	RS485/WiFi(Opt)/4G(Opt)/CAN/DRM					
Safety standard	IEC/EN62109-1/-2, IEC/EN62477-1					
EMC	IEC/EN 61000-6-1, IEC/EN 61000-6-3					
On-grid	South Africa NRS097-2-1:2017, UK G98,G99					

■ EPH 4-12KTL



Big LCD display



Power export limit



Compact and easy to install



Wifi / GPRS / Lan communication optional



Great reliability



Good safety and quality



Specifications

Model	EPH4KTL	EPH5KTL	EPH6KTL	EPH8KTL	EPH10KTL	EPH12KTL
Input(DC)						
Max DC power	6000W	7500W	9000W	12000W	15000W	15000W
Max DC voltage	1000 Vd.c.					
MPPT voltage range	200~850 Vd.c.					
Max input current/per string	13Ax2					
Number of MPP trackers	2					
Number of input string	2					
Battery Input						
Battery Type	Li-ion					
Battery voltage range	180-700V					
Maximum charge/discharge current	25/25A					
Charge strategy for Li-ion Battery	Self-adaptation to BMS					
Output (AC)						
AC nominal power	4000 VA	5000 VA	6000VA	8000VA	10000VA	12000 VA
Max AC apparent power	5000 VA	5500 VA	7000VA	8800 VA	11000VA	13200 VA
Max output current	8A	10A	12A	15A	17A	20A
Nominal AC output	50/60 Hz:400/350					
AC output range	45/55 Hz:280-490 Vac(Adj)					
Power factor	0.8leading~0.8lagging					
Harmonics factor	<3%					
Grid type	3W/N/PE					
Three-phase unbalance output	0~100%	0~100%	0~100%	0~100%	0~100%	0~80%
AC Output (Back-up)						
Max AC apparent power	4000VA	5000VA	6000VA	8000VA	10000VA	10000VA
Nominal Output Voltage	400/380V					
Nominal Output Frequency	50/60 Hz					
Output THDV (@Linear Load)	<3%					
Efficiency						
Maximum conversion efficiency	98.0%	98.0%	98.2%	98.2%	98.2%	98.2%
European efficiency	97.3%	97.3%	97.5%	97.5%	97.5%	97.5%
Max battery to AC Efficiency	97.2%	97.2%	97.4%	97.4%	97.4%	97.4%
MPPT efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Safety and protection						
DC reverse-polarity protection	yes					
DC breaker	yes					
DC/AC SPD	yes					
Leakage current protection	yes					
Insulation Impedance Detection	yes					
Residual Current protection	yes					
Output short circuit protection	yes					
Battery reverse connection protection	yes					
General Parameters						
Dimension (W/H/D)	548*444*184mm					
Weight	27kg					
Operating temperature range	-25°C~+60°C					
Degree of protection	IP65					
Cooling concept	Natural convection					
Topology	Transformerless					
Display	LCD					
Humidity	0-95%,no condensation					
Communication	Standard WiFi;GPRS/LAN(optional)					
Warranty	Standard 5 years; 7/10 years optional					
BMS communication	CAN/RS485					
Meter communication	RS485					
Certificates and Approvals:						
CQC, VDE-AR-N4105,IEC61727, IEC62116, VDE0124-AR-N0124						
EN50549, IEC62109, IEC62477						