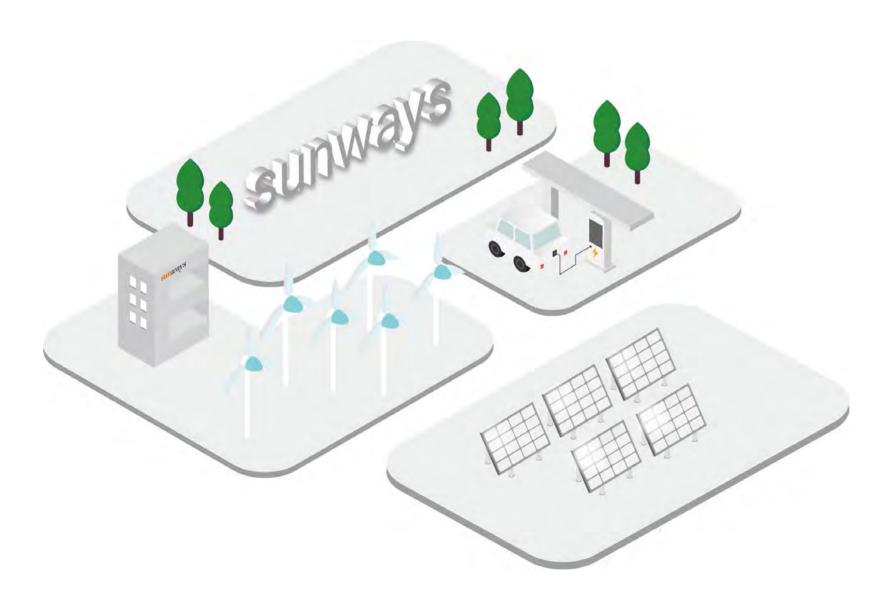




Photovoltaic Technology

# **01** COMPANY PROFILE



## WHO WE ARE

#### Sunways History German Heritage Since 1993

Sunways, formerly known as Sunways AG founded in Konstanz, Germany in 1993, was acquired by Shunfeng International Clean Energy Group (SFCE) in 2014. SFCE, also Suntech's parent company, is one of the world's largest suppliers of low-carbon and energy-saving integrated solutions. Sunways has a long standing reputation for technological innovation in the development and manufacturing of PV inverters, solar energy storage and PV integration solutions. After nearly 30 years of research and development, Sunways high-quality PV inverters are widely used in more than 50 countries and regions making the company one of the longest established PV energy suppliers in the industry.

### Production Capacity and Scale

For economies of scale reasons, Sunways production has now moved to Cixi, China while German technical standards are still in use and practice. These include the material selection criteria, software control algorithm, R&D processing procedures, test standards and production management system process. The production facility in China is around 4000m<sup>2</sup> in size, with an inverter production capacity of about 10,000 units per month. This will soon increase to 20,000 units per month through further production line expansion. Energy Connects All

### R&D Excellence

Sunways has a professional global R&D and management team and they have focused on technological innovation as one of Sunways' core competences. With two international R&D centers in Germany and China, it maintains good technical links and cooperation with many scientific research institutions, such as the Konstanz International Solar Energy Research Center in Germany and the University of Freiburg. The products are accredited to multi-national standards with certification in global markets, such as China, Germany, Poland, Spain, Australia, Brazil and India.

#### Quality Management

Sunways treats product quality as its life, from supplier inspection, incoming quality inspection, process inspection to finished product inspection, we are not just setting a series of strict, integrated quality control systems, but also have the most advanced testing laboratory to carry out a series of rigorous tests on batch products, and batch sampling and tracking the quality of finished products. Years of tempering and best practices contribute to the first impression of Sunways, quality assurance is guaranteed, utilising only the best in tier one components and best practice inspection processes at every stage.

## WHO WE ARE

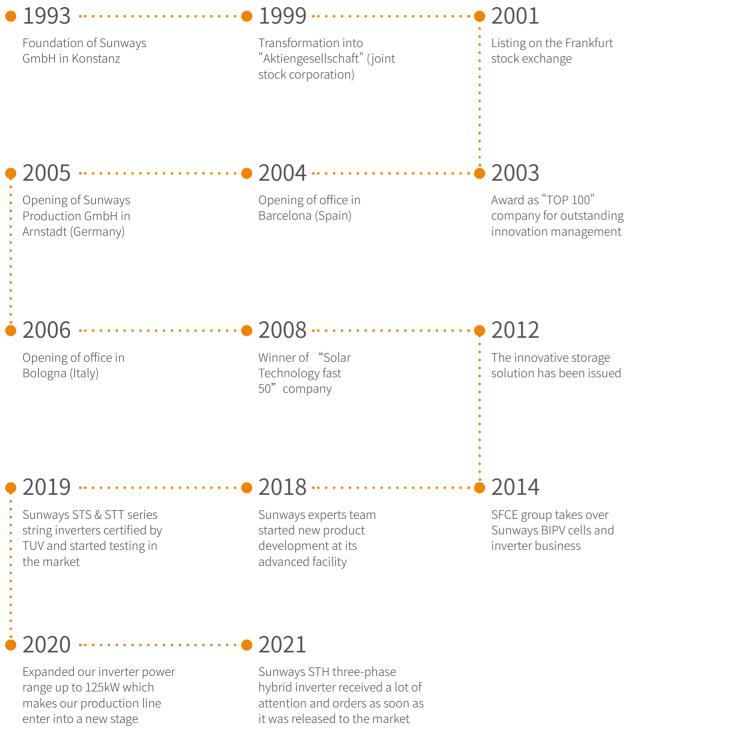
Sunways company's milestones

## **OUR PRESENCE**



## **STRATEGIC PARTNERS**





Sunways Single Phase with Single MPPT STS-1K~3.3KTL-S



## 🙆 SAFE & RELIABLE

- High reliability due to good heat dissipation design
- Integrated lightning protection for both DC and AC
- Adapt to complex power grid
- High anti-corrosion ability with aluminum alloy die casting technology
- Wider working temperature and altitude, adapt to various installation environments
- High yield with Max. 97.5% efficiency
- European weighted efficiency 97%
- Wide MPPT voltage range
- Up to 10% continuous output overloading capacity
- Single MPPT design with precise MPPT algorithm

## 🛞 HIGH YIELD

 $\gg$  easy to use

#### • Compact elegant design, light weight, one-person installation

- Plug and play connectors, easy for installation
- Support wireless and wired internet connection (RS485/WiFi/GPRS/LAN optional)
- Remote upgrading available
- Fast and easy configuration via App or OLED display

#### **Technical Parameters**

Model	STS-1KTL-S	STS-1.5KTL-S	STS-2KTL-S	STS-2.5KTL-S	STS-3KTL-S	STS-3.3KTL						
Input												
Max. Input Power (W)	1,600	2,400	3,200	4,000	4,800	4,800						
Start-up Voltage (V)	60	60	60	60	60	60						
Min. DC Voltage (V)	55	55	55	55	55	55						
Max. DC Input Voltage (V)	500	500	500	500	500	500						
Rated DC Input Voltage (V)	360	360	360	360	360	360						
MPPT Voltage Range (V)	80-450	80-450	80-450	80-450	80-450	80-450						
No. of MPP Trackers	1	1	1	1	1	1						
No. of DC Inputs per MPPT	1	1	1	1	1	1						
Max. Input Current (A)	12.5	12.5	12.5	12.5	12.5	12.5						
Max. Short-circuit Current (A)	15	15	15	15	15	15						
Output				1								
Rated Output Power (W)	1,000	1,500	2,000	2,500	3,000	3,300						
Max. Output Power (W)	1,100	1,650	2,200	2,750	3,300	3,300						
Max. Apparent Power (VA)	1,100	1,650	2,200	2,750	3,300	3,300						
Rated Output Voltage (V)	-,-00	1,000			3,300	5,500						
Rated AC Frequency (Hz)		220/230 50/60Hz 45-55Hz/55-65Hz										
Max. Output Current (A)	1.0	7.2		-	14.4	14.4						
Max. Output Current (A) Power Factor	4.8	7.2	9.6	12 0 8 logging	14.4	14.4						
		0.8 leading …0.8 lagging < 3% @Rated Output Power										
Max. Total Harmonic Distortion												
DCI			< 0.5	5%In								
Efficiency	07.00/	07.00/	07.50/	07.50/	07.50/	07.50/						
Max. Efficiency	97.3%	97.3%	97.5%	97.5%	97.5%	97.5%						
European Efficiency	96.4%	96.4%	97.0%	97.0%	97.0%	97.0%						
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%						
Protection												
DC Reverse Polarity Protection			Integ	grated								
Insulation Resistance Protection			Integ	grated								
DC Switch				ional								
Surge Protection			Integ	grated								
Over-temperature Protection			Integ	grated								
Residual Current Protection			Integ	grated								
Islanding Protection			Integ	grated								
AC Short-circuit Protection			Integ	grated								
AC Over-voltage Protection			Integ	grated								
General Data												
Dimensions (mm)			327W*29	97H*114D								
Weight (KG)			6	i.5								
Protection Degree			IP	P65								
Self-consumption at Night (W)			<	:1								
Topology			Transfor	rmer less								
Operating Temperature Range (° C)			-30	)~60								
Relative Humidity (%)			0~	100								
Operating Altitude (m)			4000 (derati	ing@ > 3000)								
Cooling				Convection								
Noise Level (dB)				25								
Display				& LED								
Communication												
		RS485/WiFi/GPRS/LAN (Optional)										

\* : STS 3.3KTL-S available for India only.

#### Single Phase:STS-1K~3.3KTL-S

Sunways Single Phase with Dual MPPT  $STS - 3K \sim 6KTL - P$ 



## SAFE & RELIABLE

A HIGH YIELD

- High reliability due to good heat dissipation design
- Integrated lightning protection for both DC and AC
- Adapt to complex power grid
- High anti-corrosion ability with aluminum alloy die casting technology
- Wider working temperature and altitude, adapt to various installation environments

• High yield with Max. 98.1% efficiency

- European weighted efficiency 97.5%
- Wide MPPT voltage range
- Up to 10% continuous output overloading capacity
- With a max input current of 15A, compatible with high-power panels

## 🛞 EASY TO USE

- Compact elegant design, light weight, one-person installation
- Plug and play connectors, easy for installation
- Support wireless and wired internet connection (RS485/WiFi/GPRS/LAN optional)
- Remote upgrading available
- Fast and easy configuration via App or OLED display

#### **Technical Parameters**

Model	STS-3KTL-P	STS-3.6KTL-P	STS-4.2KTL-P	STS-4.6KTL-P	STS-5KTL-P	STS-6KTL-						
Input												
Max. Input Power (W)	4,800	5,760	6,720	7,360	8,000	9,600						
Start-up Voltage (V)	80	80	80	80	80	80						
Min. DC Voltage (V)	100	100	100	100	100	100						
Max. DC Input Voltage (V)	600	600	600	600	600	600						
Rated DC Input Voltage (V)	360	360	360	360	360	360						
MPPT Voltage Range (V)	100-550	100-550	100-550	100-550	100-550	100-550						
No. of MPP Trackers	2	2	2	2	2	2						
No. of DC Inputs per MPPT	1/1	1/1	1/1	1/1	1/1	1/1						
Max. Input Current (A)	15/15 <sup>1</sup>	15/15 <sup>1</sup>	15/15 1	15/15 <sup>①</sup>	15/15 <sup>1</sup>	15/15 <sup>1</sup>						
Max. Short-circuit Current (A)	20/20	20/20	20/20	20/20	20/20	20/20						
Output		1			I							
Rated Output Power (W)	3,000	3,600	4,200	4,600	5,000/4,990 2 **	6,000						
Max. Output Power (W)	3,300	3,960*	4,600	4,600	5,500/4,990 2 **	6,600						
Max. Apparent Power (VA)	3,300	3,960*	4,600	4,600	5,500/4,990 <sup>②</sup> **	6,600						
Rated Output Voltage (V)				/230		-,						
Rated AC Frequency (Hz)		50/60Hz 45-55Hz/55-65Hz										
Max. Output Current (A)	15	18***	21	21	25/21.7 2 ****	28.7						
Power Factor		10			23/21.1							
Max. Total Harmonic Distortion		0.8 leading …0.8 lagging <3% @Rated Output Power										
DCI				5%In								
Efficiency			0.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
Max. Efficiency	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%						
European Efficiency	97.5%	97.5%	97.5%	97.5%	97.5%	97.5%						
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%						
Protection	55.570	55.570	55.570	55.570	55.570	55.570						
DC Reverse Polarity Protection			Intor	grated								
Insulation Resistance Protection				grated								
			-	-								
DC Switch				ional								
Surge Protection				grated								
Over-temperature Protection				grated								
Residual Current Protection				grated								
Islanding Protection			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	grated								
AC Short-circuit Protection				grated								
AC Over-voltage Protection			Integ	grated								
General Data												
Dimensions (mm)				50H*120D								
Weight (KG)				13								
Protection Degree				265								
Self-consumption at Night (W)				<1								
Topology			Transfor	rmer less								
Operating Temperature Range (° C)			-30	)~60								
Relative Humidity (%)			0~	100								
Operating Altitude (m)			4000 (derati	ing@ > 3000)								
Cooling			Natural C	Convection								
Noise Level (dB)			<	25								
Display			OLED	& LED								
Communication			RS485/WiFi/GPR	RS/LAN (Optional)								
	NE	3/T32004、IEC62109、 CEI0-21、RD1699、N	RS485/WiFi/GPR	RS/LAN (Optional) VDE0126、UTE C15-								

① STS-3~6KTL series maximum input current per string is 12.5A, and STS-3~6KTL-P version is 15A, products deliver upon the order. (2) The grid feed in power for AS/NZS 4777.2 is limited 4.99kW & 4.99kVA & 21.7A. \*: 3680 for G98. \*\*: 5000 for C10/11. \*\*\*: 16 for G98. \*\*\*\*: 21.7 for C10/11.

#### Single Phase:STS-3K~6KTL-P



Sunways Single Phase with Dual MPPT  $STS - 7K \sim 11KTL$ sunways MAX 98.1% EFFICIENCY **IP65 PROTECTION** 

## 🙆 SAFE & RELIABLE

A HIGH YIELD

- High reliability due to good heat dissipation design
- Integrated lightning protection for both DC and AC
- Adapt to complex power grid
- High anti-corrosion ability with aluminum alloy die casting technology
- Wider working temperature and altitude, adapt to various installation environments

• High yield with Max. 98.1% efficiency

- European weighted efficiency 97.6%
- Wide MPPT voltage range
- Up to 10% continuous output overloading capacity
- With a max input current of 15A, compatible with high-power panels

## 💥 EASY TO USE

- Plug and play connectors, easy for installation
- Support wireless and wired internet connection (RS485/WiFi/GPRS/LAN optional)
- Remote upgrading available
- Fast and easy configuration via App or OLED display

### **Technical Parameters**

Model	STS-7KTL	STS-8KTL	STS-9KTL	STS-10KTL	STS-11KTL				
Input									
Max. Input Power (W)	11,200	12,800	14,400	16,000	16,000				
Start-up Voltage (V)	80	80	80	80	80				
Max. DC Input Voltage (V)	600	600	600	600	600				
Rated DC Input Voltage (V)	360	360	360	360	360				
MPPT Voltage Range (V)	80~550	80~550	80~550	80~550	80~550				
No. of MPP Trackers	2	2	2	2	2				
No. of DC Inputs per MPPT	1/2	1/2	1/2	1/2	1/2				
Max. Input Current (A)	15/30	15/30	15/30	15/30	15/30				
Max. Short-circuit Current (A)	20/40	20/40	20/40	20/40	20/40				
Output									
Rated Output Power (W)	7,000	8,000	9,000	10,000	11,000				
Max. Output Power (W)	7,700	8,800	9,900	11,000	11,000				
AC output rated apparent power (VA)	7,000	8,000	9,000	10,000	11,000				
Max. Apparent Power (VA)	7,700	8,800	9,900	11,000	11,000				
Rated Output Voltage (V)		220/230							
Rated AC Frequency (Hz)		50/60							
AC output rated current (A)	30.4	34.8	39.1	43.5	47.8				
Max. Output Current (A)	33.5	38.3	43	47.8	47.8				
Power Factor			0.8 leading …0.8 lagging	1	1				
Max. total harmonic distortion			<3% @Rated Output Powe						
DCI			< 0.5%In						
Efficiency									
Max. Efficiency	98.1%	98.1%	98.1%	98.1%	98.1%				
European Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%				
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%				
Protection		1			1				
DC Reverse Polarity Protection			Integrated						
Insulation Resistance Protection			Integrated						
DC Switch			Optional						
Surge Protection			Integrated						
Over-temperature Protection			Integrated						
Residual Current Protection			Integrated						
Islanding Protection			Integrated						
AC Short-circuit Protection			Integrated						
AC Over-voltage Protection			Integrated						
General Data			integrated						
Dimensions (mm)			550W*410H*175D						
Weight (KG)		24		26					
Protection Degree			IP65						
Self-consumption at Night (W)			<1						
Topology			Transformer less						
Operating Temperature Range (oC)			-30~60						
Relative Humidity (%)			0~100						
Operating Altitude (m)			4000 (depreciativo@ > 300	00)					
Cooling	Natural C	onvection		Smart Fan Cooling					
Noise Level (dB)		25		< 40					
Display		25	OLED & LED	~ TU					
Communication		מ	S485/WiFi/GPRS/LAN (Optic	nal)					
communication			16、VDE4105、VDE0126、U						

#### Single Phase:STS-7K~11KTL

Sunways Three Phase with Dual MPPT STT-3K~6KTL-M



## 🙆 SAFE & RELIABLE

A HIGH YIELD

- High reliability due to good heat dissipation design
- Integrated lightning protection for both DC and AC
- Adapt to complex power grid
- High anti-corrosion ability with aluminum alloy die casting technology
- IP66, can be used in broader variety of harsh installation environments
- High yield with Max. 98.3% efficiency
- European weighted efficiency 98.0%
- Wide MPPT voltage range
- Up to 10% continuous output overloading capacity
- With a max input current of 15A, compatible with high-power panels

## 💥 EASY TO USE

- Compact elegant design, weight only 14kg, one-person installation
- Plug and play connectors, easy for installation
- Support wireless and wired internet connection (RS485/WiFi/GPRS/LAN optional)
- Remote upgrading available
- Fast and easy configuration via App or OLED display

#### **Technical Parameters**

Model	STT-3KTL-MS	STT-3KTL-M	STT-4KTL-M	STT-5KTL-M	STT-6KTL-M
Input					
Max. Input Power (W)	4,800	4,800	6,400	8,000	9,600
Start-up Voltage (V)	135	135	135	135	135
Max. DC Input Voltage (V)	1,100	1,100	1,100	1,100	1,100
Rated DC Input Voltage (V)	620	620	620	620	620
MPPT Voltage Range (V)	120-1000	120-1000	120-1000	120-1000	120-1000
No. of MPP Trackers	1	2	2	2	2
No. of DC Inputs per MPPT	1	1/1	1/1	1/1	1/1
Max. Input Current (A)	15	15/15	15/15	15/15	15/15
Max. Short-circuit Current (A)	20	20/20	20/20	20/20	20/20
backfeed current to the array (A)	0	0	0	0	0
Output					
Rated Output Power (W)	3,000	3,000	4,000	5,000	6,000
Max. Output Power (W)	3,300	3,300	4,400	5,500	6,600
AC output rated apparent power(VA)	3,000	3,000	4,000	5,000	6,000
Max. Apparent Power (VA)	3,300	3,300	4,400	5,500	6,600
Rated Output Voltage (V)	3,300	5,500	3 L/ N / PE, 230 / 400V	0,000	0,000
Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60
AC output rated current (A)	4.4	4.4	50/60	7.3	8.7
			6.7		
Max. Output Current (A)	5	5		8.4	10
Power Factor			0.8 leading …0.8 lagging		
Max. total harmonic distortion			<3% @Rated Output Powe	r	
DCI			<0.5%In		
Efficiency					
Max. Efficiency	98.1%	98.1%	98.1%	98.1%	98.3%
European Efficiency	97.9%	97.9%	97.9%	97.9%	98.0%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%
Protection	1				
DC Reverse Polarity Protection			Integrated		
Insulation Resistance Protection			Integrated		
DC Switch			Integrated		
Surge Protection			Integrated		
Over-temperature Protection			Integrated		
Residual Current Protection			Integrated		
Islanding protection			Frequency shift, Integrate	d	
AC Short-circuit Protection			Integrated		
AC Over-voltage Protection			Integrated		
General Data					
Dimensions (mm)			410W*360H*120D		
Weight (KG)			14		
Protection Degree			IP66		
Self-consumption at Night (W)			<1		
Topology			Transformerless		
Operating Temperature Range (° C)			-30~60		
Relative Humidity			0~100%		
Operating Altitude (m)			0000 (depreciativo@ > 300	0)	
Cooling			Natural Convection		
Display			OLED & LED		
Communication		DC	485/WiFi/ GPRS/LAN(Optio	nal)	
		R.S.	του και τη σε πολί ΑΝΙΟύΠΟ	1140	

#### Three Phase:STT-3K~6KTL-M

Sunways Three Phase with Dual MPPT STT-4K~25KTL-P



## SAFE & RELIABLE

HIGH YIELD

- High reliability due to good heat dissipation design
- Integrated lightning protection for both DC and AC
- Adapt to complex power grid
- High anti-corrosion ability with aluminum alloy die casting technology
- Wider working temperature and altitude, adapt to various installation environments

• High yield with Max. 98.6% efficiency

- European weighted efficiency 98.2%
- Longer working hours due to the lower start-up voltage and wider MPPT range
- Up to 10% continuous output overloading capacity
- With a max input current of 15A, compatible with high-power panels

## 🛞 EASY TO USE

- Support wireless and wired internet connection (RS485, WiFi/GPRS/LAN optional)
- Remote upgrading available
- Fast and easy configuration via App or OLED display

#### **Technical Parameters**

Model	STT-4KTL-P	STT-5KTL-P	STT-6KTL-P	STT-8KT
Input				
Max. Input Power (W)	6,400	8,000	9,600	12,800
Start-up Voltage (V)	180	180	180	180
Min. DC Voltage (V)	150	150	150	150
Max. DC Input Voltage (V)	1,100	1,100	1,100	1,100
Rated DC Input Voltage (V)	620	620	620	620
MPPT Voltage Range (V)	160-1000	160-1000	160-1000	160-100
No. of MPP Trackers	2	2	2	2
No. of DC Inputs per MPPT	1/1	1/1	1/1	1/1
Max. Input Current (A)	15/15 1	15/15 1	15/15 1	15/15
Max. Short-circuit Current (A)	20/20	20/20	20/20	20/20
Output				
Rated Output Power (W)	4,000	5,000	6,000	8,000
Max. Output Power (W)	4,400	5,500	6,600	8,800
Max. Apparent Power (VA)	4,400	5,500	6,600	8,800
Rated Output Voltage (V)				
Rated AC Frequency (Hz)				
Max. Output Current (A)	6.7	8.4	10	13.3
Power Factor				
Max. Total Harmonic Distortion				
DCI				
Efficiency				
Max. Efficiency	98.1%	98.1%	98.3%	98.3%
European Efficiency	97.9%	97.9%	98.0%	98.0%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%
Protection				
DC Reverse Polarity Protection				
Insulation Resistance Protection				
DC Switch				
Surge Protection				
Over-temperature Protection				
Residual Current Protection				
Anti-islanding Protection				
AC Short-circuit Protection				
AC Over-voltage Protection				
General Data				
Dimensions (mm)				
Weight (KG)				23
Protection Degree				
Self-consumption at Night (W)				
Topology				
Operating Temperature Range (° C)				
Relative Humidity (%)				
Operating Altitude (m)				
Cooling			Na	atural Conv
Noise Level (dB)				< 25
Display				
Communication				F
		NB/T32	004、IEC621	09. IEC62

① STT-4~25KTL series maxmium input current per string is 11A, products deliver upon the oder

#### Three Phase:STT-4K~25KTL-P

#### 16,000 19,200 24,000 27,200 32,000 40.000 00 180 180 180 180 180 180 150 150 150 150 150 150 1,100 1,100 1,100 1,100 1,100 1,100 620 620 620 620 620 620 000 160-1000 160-1000 160-1000 160-1000 160-1000 160-1000 2 2 2 2 2 2 1/11/11/2 2/2 2/2 2/2 15/15 15/15 15/30 30/30 30/30 30/30 0 20/20 20/20 20/40 40/40 40/40 40/40 10,000 12,000 15,000 17,000 20,000 25,000 11,000 13,200 16.500 18,700 22,000 25.000 11,000 13.200 16.500 18,700 22,000 25.000 3L/N/PE, 230/400V 50/60Hz 45-55Hz/55-65Hz 20 25 28.4 31.9 16.5 39 0.8 leading …0.8 lagging < 3% @Rated Output Power < 0.5%ln 98.6% 98.6% 98.6% 98.6% 98.6% 98.6% 98.2% 98.2% 98.2% 98.2% 98.2% 98.2% 99.9% 99.9% 99.9% 99.9% 99.9% 99.9% Integrated Integrated Optional Integrated Integrated Integrated Integrated Integrated Integrated 550W\*410H\*175D 26 29 IP65 < 1 Transformer less -30~60 0~100 4000 (derating@ > 3000) Smart Fan Cooling nvection < 40 OLED & LED RS485, WiFi/GPRS/LAN (Optional) 2116、VDE4105、VDE0126、UTE C15-712-1、AS4777、C10/11、 6149、IEC61727、IEC60068、IEC61683、EN50549、EN61000

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Sunways Three Phase with Four MPPT STT-30K~60KTL



## SAFE & RELIABLE

A HIGH YIELD

- High reliability due to good heat dissipation design
- Integrated lightning protection for both DC and AC
- Adapt to complex power grid
- High anti-corrosion ability with aluminum alloy enclosure
- IP66, can be used in broader variety of harsh installation environments

• High yield with Max. 98.8% efficiency

- European weighted efficiency 98.3%
- Wide MPPT voltage range
- Up to 10% continuous output overloading capacity
- DC 2 in 1 connection enabled, compatible with high-power panels

## 💥 EASY TO USE

- Plug and play connectors, easy for installation
- Support wireless and wired internet connection (RS485/WiFi/GPRS/LAN optional)
- Remote upgrading available
- Fast and easy configuration via App or OLED display

### **Technical Parameters**

Model	STT-29.9KTL	STT-30KTL	STT-33KTL	STT-36KTL	STT-40KTL	STT-45KTL	STT-50KTL-M	STT-60KTL
Input								
Max. Input Power (W)	47,840	48,000	52,800	57,600	64,000	72,000	80,000	96,000
Start-up Voltage (V)	180	180	180	180	180	180	180	180
Max. DC Input Voltage (V)	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
Rated DC Input Voltage (V)	620	620	620	620	620	620	620	620
MPPT Voltage Range (V)	180-1000	180-1000	180-1000	180-1000	180-1000	180-1000	180-1000	180-1000
No. of MPP Trackers	4	4	4	4	4	4	4	4
No. of DC Inputs per MPPT	2	2	2	2	2	2	2	2
Max. Input Current (A)	26/26/26/26	26/26/26/26	26/26/26/26	26/26/26/26	26/26/26/26	26/26/26/26	26/26/26/26	26/26/26/
Max. Short-circuit Current (A)	40/40/40/40	40/40/40/40	40/40/40/40	40/40/40/40	40/40/40/40	40/40/40/40	40/40/40/40	40/40/40/
Output			1	1	1		1	1
Rated Output Power (W)	29,900	30,000	33,000	36,000	40,000	45,000	50,000	60,000
Max. Output Power (W)	29,900	33,000	36,300	39,600	44,000	49,500	55,000	60,000
AC output rated apparent power(VA)	29,900	30,000	33,000	36,000	40,000	45,000	50,000	60,000
Max. Apparent Power (VA)	29,900	33,000	36,300	39,600	44,000	49,500	55,000	60,000
Rated Output Voltage (V)	-,	,_ > 0			380 / 400V	-,		
Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
AC output rated current (A)	43.3	43.5	47.8	52.2	58.0	65.2	72.5	87.0
Max. Output Current (A)	43.3	47.8	52.6	57.4	63.8	71.7	79.7	87.0
Power Factor	10.0	17.0	52.0		··0.8 lagging	1 4.1	13.1	01.0
Max. total harmonic distortion					Output Power			
DCI					5%In			
Efficiency				~0.0	770111			
Max. Efficiency	98.8%	98.8%	98.8%	98.8%	98.8%	98.8%	98.8%	98.8%
European Efficiency	98.3%	98.3%	98.3%	98.3%	98.3%	98.3%	98.3%	98.3%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Protection	55.570	33.370	55.570	33.370	33.370	33.370	33.370	55.570
DC Reverse Polarity Protection				Intos	iratad			
Insulation Resistance Protection					rated			
DC Switch					rated grated			
				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
Surge Protection				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	rated			
Over-temperature Protection					rated			
Residual Current Protection					rated			
Islanding protection					nift, Integrated			
AC Short-circuit Protection				~	rated			
AC Over-voltage Protection				Integ	rated			
General Data								
Dimensions (mm)				600W*40	0H*270D			
Weight (KG)				4	2			
Protection Degree				IP	66			
Self-consumption at Night (W)				<	1			
Topology				Transfo	rmerless			
Operating Temperature Range (° C)				-30	~60			
Relative Humidity (%)				0~	100			
Operating Altitude (m)				4000 (derati	ng@ > 3000)			
Cooling				Smart Fa	n Coolling			
Display				OLED	& LED			
Communication				RS485/WiFi/ GPF	RS/LAN(Optional			
		NB/T32004、1	EC62109、IEC62 RD1699、NBR16	116、VDE4105、	VDE0126、UTE	C15-712-1、AS4	777、C10/11、	

#### Three Phase:STT-30K~60KTL

#### Sunways Three Phase with Six MPPT STT-50K/60KTL-P



## 🙆 SAFE & RELIABLE

A HIGH YIELD

- High reliability due to good heat dissipation design
- Integrated lightning protection for both DC and AC
- Adapt to complex power grid
- High anti-corrosion ability with aluminum alloy enclosure
- Wider working temperature and altitude, adapt to various installation environments
- High yield with Max. 98.8% efficiency
- European weighted efficiency 98.3%
- Up to 10% continuous output overloading capacity
- Six MPPT design, lower PV string mismatch loss
- Optional anti-PID function integrated
- DC 2 in 1 connection enabled, compatible with high-power panels

## 💥 EASY TO USE

- String monitoring, improve O&M efficiency
- Support wireless and wired internet connection (RS485, WiFi/GPRS/LAN optional)
- Remote upgrading available
- Intelligent positioning abnormal string with integrated I/V scan function

#### **Technical Parameters**

Input Max. Input Power (W) Start-up Voltage (V)	80,000	00.000
		00.000
Start-up Voltage (V)		96,000
	200	200
Max. DC Input Voltage (V)	1,100	1,100
Rated DC Input Voltage (V)	620	620
MPPT Voltage Range (V)	160-1000	160-1000
No. of MPP Trackers	6	6
No. of DC Inputs	12	12
Max. Input Current (A)	26/26/26/26/26 <sup>①</sup>	26/26/26/26/26/26 <sup>①</sup>
Max. Short-circuit Current (A)	40/40/40/40/40	40/40/40/40/40
Output		
Rated Output Power (W)	50,000	60,000
Max. Output Power (W)	55,000	66,000
Max. Apparent Power (VA)	55,000	66,000
Rated Output Voltage (V)		E, 230/400V
Rated AC Frequency (Hz)		-55Hz/55-65Hz
Max. Output Current (A)	83.6	95.3
Power Factor		g···0.8 legging
Max. Total Harmonic Distortion		d Output Power
DCI		.5% In
Efficiency		
Max. Efficiency	98.8%	98.8%
European Efficiency	98.3%	98.3%
MPPT Efficiency	99.9%	99.9%
Protection	55.576	55.576
DC Reverse Polarity Protection	Inte	egrated
Insulation Resistance Protection		egrated
DC Switch		itional
Surge Protection		egrated
Over-temperature Protection		egrated
Residual Current Protection		egrated
Anti-islanding Protection		egrated
AC Short-circuit Protection		·
AC Over-voltage Protection		·grated
PID Protection		itional
General Data	0	
Dimensions (mm)	050/1/*0	520H*290D
Weight (KG)	\$ \$1008	58
		P65
Protection Degree Self-consumption at Night (W)		<1
		< 1 ormer less
Topology		
Operating Temperature Range (° C)		- 100
Relative Humidity (%)		~100
Operating Altitude (m)		ting@ > 3000)
		an Coolling
Noise Level (dB)		< 55
Display		
Communication	RS485, WiFi/GF	RS/LAN (Optional)
Compliance		/DE4105、VDE0126、AS4777、C10/11、 、IEC60068、IEC61683、EN50549、EN61000

① STT-50/60KTL series maxmium input current per MPPT is 22A, products deliver upon the oder

#### Three Phase:STT-50K/60KTL-P



Sunways Three Phase with Eight/Ten MPPT STT-80K~110KTL、100K/125KTL-HV



## ीः INTELLIGENT

♣ HIGH YIELD

- Intelligent positioning abnormal string with integrated I/V scan function
- Real-time fault curve recording, improve O&M efficiency
- IP68 intelligent fans, lower operation temperature, longer lifespan
- Intelligent quad-core processor, information processing more comprehensive, fast, and efficient •
- High yield with Max. 98.8% efficiency
- Up to 10% continuous output overloading capacity
- 8/10 MPPT design, lower PV string mismatch loss
- Optional PID recovery function
- DC 2 in 1 connection enabled, compatible with high-power panels

## S CONVENIENCE

- Support wireless and wired internet connection (RS485, WiFi/GPRS/LAN optional)
- Remote upgrading available •
- Fast and easy commissioning via App or OLED display

#### **Technical Parameters**

Model	STT-80KTL	STT-100KTL	STT-110KTL	STT-100KTL-HV	STT-125KTL-H					
Input										
Max. Input Power (W)	128,000	160,000	176,000	160,000	200,000					
Start-up Voltage (V)	200	200	200	200	200					
Max. DC Input Voltage (V)	1,100	1,100	1,100	1,100	1,100					
Rated DC Input Voltage (V)	620	620	620	750	750					
MPPT Voltage Range (V)	200-950	200-950	200-950	200-950	200-950					
No. of MPP Trackers	8	10	10	10	10					
No. of DC Inputs	16	20	20	20	20					
Max. Input Current (A)	8*26	10*26	10*26	10*26	10*26					
Max. Short-circuit Current (A)	8*40	10*40	10*40	10*40	10*40					
Output					1					
Rated Output Power (W)	80,000	100,000	110,000	100,000	125,000					
Max. Output Power (W)	88,000	110,000	121,000	110,000	137,500					
Max. Apparent Power (VA)	88,000	110,000	121,000	110,000	137,500					
Rated Output Voltage (V)		3L/N/PE, 230/400V 3/PE,288/500V								
Rated AC Frequency (Hz)		50/60Hz 45-55Hz/55-65Hz								
Max. Output Current (A)	127	158.8	174.8	127	158.8					
Power Factor			0.8 leading…0.8 legging		1					
Max. Total Harmonic Distortion			< 3% @ Rated Output Pow	er						
DCI			< 0.5% In							
Efficiency										
Max. Efficiency	98.8%	98.8%	98.8%	98.8%	98.8%					
European Efficiency	98.3%	98.3%	98.3%	98.3%	98.3%					
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%					
Protection	55.576	55.570	55.570	33.370	55.576					
DC Reverse Polarity Protection			Integrated							
Insulation Resistance Protection			Integrated							
DC Switch			Optional							
Surge Protection			Integrated							
Over-temperature Protection			Integrated							
Residual Current Protection			Integrated							
Anti-islanding Protection			Integrated							
AC Short-circuit Protection AC Over-voltage Protection			Integrated							
PID Protection			Integrated Optional							
			ορτιοπαι							
General Data			0751/1/*60011*2000							
Dimensions (mm) Weight (KG)	79		975W*680H*290D	32						
	13			٥٢						
Protection Degree			IP65							
Self-consumption at Night (W)			< 1							
Topology			Transformer less							
Operating Temperature Range (° C)			-30~60							
Relative Humidity (%)			0~100							
Operating Altitude (m)			4000 (derating@ > 3000)							
Cooling			Smart Fan Coolling							
Display	OLED & LED									
Communication	RS485, WiFi/GPRS/LAN (Optional)									

#### Three Phase:STT-80K~110KTL、100K/125KTL-HV



#### Sunways Single Phase Storage Inverter with Two MPPT STH-3K~3.6KTL-HSS、STH-4.2K~8KTL-HS



**Technical Parameters** 

	Model	STH-3KTL HSS	STH-3.6KTL- HSS	STH-4.2KTL -HS	STH-4.6KTL -HS	STH-5KTL -HS	STH-6KTL -HS	STH-7KTL -HS	STH-8KTI			
	Max. Input Power (W)	4,800	5,760	6,720	7,360	8,000	9,600	11,200	12,800			
	Start-up Voltage (V)	80	80	80	80	80	80	80	80			
	Max. DC Input Voltage (V)	600	600	600	600	600	600	600	600			
	Rated DC Input Voltage (V)	360	360	360	360	360	360	360	360			
PV Input	MPPT Voltage Range (V)	100-550	100-550	100-550	100-550	100-550	100-550	100-550	100-550			
	No. of MPP Trackers	1	1	2	2	2	2	2	2			
	No. of PV Inputs per MPPT	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1			
	Max. Input Current (A)	15	15	15/15	15/15	15/15	15/15	15/15	15/15			
	Max. Short-circuit Current (A)	20	20	20/20	20/20	20/20	20/20	20/20	20/20			
	Battery Type				Lithium Batte	ery (with BMS)						
	Battery Communication Mode				CAN /	RS485						
Battery	Battery Voltage Range (V)				85-	500						
	Max. Charge/Discharge Current (A)		30/30									
	Rated Current of Built-in Fuse (A)				6	13						
	Rated Output Power (W)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000			
	Max. Output Power (W)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000			
	Max. Apparent Power (VA)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000			
	Max. Input Apparent Power (VA)	6,000 1	7,200 1	8,400 <sup>1</sup>	9,200 1	10,000 1	12,000 <sup>①</sup>	12,000 1	12,000			
Output (Grid)	Max. Charging Power of Battery (W)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000			
	Rated Output Voltage (V)				L/N/PE, 22	0/230/240V						
(GIIU)	Rated AC Frequency (Hz)				50,	/60						
	Max. Output Current (A)	15	18	21	21	25/21.7	28.7	35	36.3			
	Power Factor				0.8 leading ·	··0.8 lagging						
	Max. Total Harmonic Distortion				<3% @Rated	Output Power						
	DCI				<0.5	i%In						
	Rated Output Power (W)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000			
	Max. Output Power (W)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000			
	Back-up output rated apparent power (VA)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000			
	Max. Apparent Power (VA)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000			
	Back-up output rated current (A)	13	15.7	18.3	20	21.7	26.1	31.8	36.3			
Output (Back-up)	Max. Output Current (A)	15	18	21	21	25/21.7	28.7	35	36.3			
(Dack-up)	UPS switching time	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms			
	Rated Output Voltage (V)	L/N/PE, 220/230/240										
	Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60			
	Peak output apparent power (VA)	3,900 <sup>°</sup> , 60s	4,700 <sup>2</sup> , 60s	5,500 <sup>2</sup> , 60s	6,000 <sup>2</sup> , 60s	6,500 <sup>2</sup> , 60s	7,800 <sup>2</sup> ,60s	9,100 <sup>2</sup> , 60s	10,000 <sup>2</sup> ,			
	Voltage harmonic distortion				<3% @Li	near load						
	Max. Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%			
Tfficie:	European Efficiency	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%			
FΠICIENCV	Max. Battery Charging Conversion Efficience		96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%			
	Max. Battery Discharge Conversion Efficience	y 96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%			
Protection				General [	)ata							
	Polarity Protection	Integrate	od.		age Category			PV: II ; Mair	n ·			
	-	-		Dimensio	0 ,			550W*410H*				
	ut Reverse Connection Protection	Integrate	ed	- Weight (K				26	1150			
nsulation F	Resistance Protection	Integrate	ed	- Protectio				IP65				
DC Switch		Option	al		umption at Nig	ht (W)		< 15				
Surge Prote	ection	Integrate	ed	Topology				Transformer	less			
Over-temp∉	erature Protection	Integrate	ed	Operating	g Temperature		-30~60					
Residual Cu	urrent Protection	Integrate	ed		lumidity (%)		0~100					
slanding P		Frequency Shift,		Operating	g Altitude (m)	4	000 (derating@	p > 3000)				
			-	Cooling				Natural Conve	ection			
AC Over-voltage Protection		Integrate		Noise Lev	- Noise Level (dB)							
	Overload Protection		Integrated Display			(dB) <25 OLED & LE			ED			
Overload P	rotection	Integrate										

Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery.
 The output power will exceed the rated value only when the power in the PV array is sufficient, and the duration of the overload is relating to the overload power.

#### Single Phase:STH-3K~3.6KTL-HSS、STH-4.2K~8KTL-HS



Sunways Three Phase Storage Inverter with Two MPPT STH-4K~12KTL-HT



#### **Technical Parameters**

Model		STH-4KTL-HT	STH-5KTL-HT	STH-6KTL-HT	STH-8KTL-HT	STH-10KTL-HT	STH-12KTL-H
Max. Input Power (W)		6,400	8,000	9,600	12,800	16,000	19,200
Start-up Voltage (V)		150	150	180	180	180	180
Max. DC Input Voltage (V)		1,000	1,000	1,000	1,000	1,000	1,000
Rated DC Input Voltage (V)		620	620	620	620	620	620
MPPT Voltage Range (V)		150-850	150-850	200-850	200-850	200-850	200-850
No. of MPP Trackers		2	2	2	2	2	2
No. of PV Inputs		1/1	1/1	1/1	1/1	1/1	1/1
Max. Input Current (A)		13/13	13/13	13/13	13/13	13/13	13/13
Max. Short-circuit Current (A)		18/18	18/18	18/18	18/18	18/18	18/18
Battery Type			1	Lithium Batte	ery (with BMS)		
Battery Communication Mode				CAN/	RS485		
Battery Voltage Range (V)				180-	750 <sup>1</sup>		
Max. Charge/Discharge Current	(A)			25,	/25		
Rated Current of Built-in Fuse (A			6	3			
Rated Output Power (W)		4,000	5,000	6,000	8,000	10,000	12,000
Max. Output Power (W)		4,400	5,500	6,600	8,800	11,000	13,200
Max. Apparent Power (VA)		4,400	5,500	6,600	8,800	11,000	13,200
Max. Input Apparent Power (VA	)	8,000 2	10,000 2	12,000 2	16,000 <sup>②</sup>	16,500 <sup>©</sup>	16,500 <sup>2</sup>
Max. Charging Power of Battery	(W)	4,000	5,000	6,000	8,000	10,000	12,000
Rated Output Voltage (V)			1	3L/N/PE,	230/400V		
Rated AC Frequency (Hz)				50/60Hz 45-5	5Hz/55-65Hz		
Max. Output Current (A)		6.7	8.3	10	13.3	16.5	20
Power Factor			1	0.8 leading ·	··0.8 lagging	1	
Max. Total Harmonic Distortion				< 3% @Rated	Output Power		
DCI				< 0.5	i%In		
UPS Switching Time				< 1(	)ms		
Rated Output Voltage (V)				3L/N/PE,	230/400V		
Rated AC Frequency (Hz)				50/60Hz 45-5	55Hz/55-65Hz		
Max. Apparent Output Power (VA)		4,400	5,500	6,600	8,800	11,000	13,200
Peak Overload Apparent Power	(VA)	8,000 <sup>3</sup> , 60s	10,000 <sup>3</sup> , 60s	12,000 <sup>3</sup> , 60s	16,000 <sup>3</sup> , 60s	20,000 <sup>3</sup> , 60s	20,000 <sup>3</sup> , 60s
Peak Output Apparent Power/pe	r Phase (VA)	1,600 ④	2,100 ④	2,600 ④	3,300 @	4,000 (4)	5,000 (4)
Voltage Harmonic Distortion				< 3% @Li	near Load	20,000 <sup>®</sup> , 60s 20,000 <sup>®</sup> , 4,000 <sup>®</sup> 5,000	
Max. Efficiency		98.1%	98.1%	98.1%	98.2%	98.2%	98.2%
European Efficiency		97.3%	97.3%	97.3%	97.4%	97.4%	97.4%
Max. Battery Charging Conversi	on Efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%
Max. Battery Discharge Conversion	on Efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%
			General I	Data			
olarity Protection		Integrated				550W*41	0H*175D
-				. ,			
		~					65
sistance Protection		~		0	(W)		15
		Optional			(**)		
tion		Integrated	. 05		лде (° С)		
ature Protection		Integrated			160 ( 0)		
rent Protection		Integrated		-			
tection	Frequen	cy Shift, Integrated		5			<u> </u>
age Protection		Integrated		vel (dB)			
<u> </u>		Integrated					
Verload Protection		ntegrated Display Display Communication			OLED & LED WiFi / LAN (Optional)		
	Max. Input Power (W) Start-up Voltage (V) Max. DC Input Voltage (V) Rated DC Input Voltage (V) MPPT Voltage Range (V) No. of MPP Trackers No. of PV Inputs Max. Input Current (A) Max. Short-circuit Current (A) Battery Type Battery Communication Mode Battery Voltage Range (V) Max. Charge/Discharge Current Rated Output Power (W) Max. Output Power (W) Max. Output Power (W) Max. Apparent Power (VA) Max. Input Apparent Power (VA) Max. Charging Power of Battery Rated Output Voltage (V) Rated AC Frequency (Hz) Max. Output Current (A) Power Factor Max. Total Harmonic Distortion DCI UPS Switching Time Rated Output Voltage (V) Rated AC Frequency (Hz) Max. Apparent Output Power (W) Rated AC Frequency (Hz) Max. Apparent Output Power (W) Peak Overload Apparent Power/pe Voltage Harmonic Distortion Max. Efficiency European Efficiency Max. Battery Charging Conversis Max. Battery Discharge Conversis Ma	Max. Input Power (W) Start-up Voltage (V) Max. DC Input Voltage (V) Rated DC Input Voltage (V) MPPT Voltage Range (V) No. of MPP Trackers No. of PV Inputs Max. Input Current (A) Battery Type Battery Communication Mode Battery Voltage Range (V) Max. Charge/Discharge Current (A) Rated Current of Built-in Fuse (A) Rated Output Power (W) Max. Output Power (W) Max. Output Power (W) Max. Charging Power of Battery (W) Rated Output Voltage (V) Rated AC Frequency (Hz) Max. Total Harmonic Distortion DCI UPS Switching Time Rated Output Voltage (V) Rated AC Frequency (Hz) Max. Apparent Output Power (VA) Power Factor Max. Total Harmonic Distortion DCI UPS Switching Time Rated Output Apparent Power (VA) Peak Output Apparent Power (VA) Peak Output Apparent Power (VA) Rated AC Frequency (Hz) Max. Apparent Output Power (VA) Peak Output Current (A) Power Factor Max. Total Harmonic Distortion DCI UPS Switching Time Rated Output Apparent Power (VA) Peak Output Portection Max. Battery Discharge Conversion Efficiency Max	Max. Input Power (W)6,400Start-up Voltage (V)150Max. DC Input Voltage (V)1,000Rated DC Input Voltage (V)620MPPT Voltage Range (V)150-850No. of MPP Trackers2No. of PV Inputs1/1Max. Input Current (A)13/13Max. Short-circuit Current (A)18/18Battery TypeBattery Communication ModeBattery Voltage Range (V)Max. Charge/Discharge Current (A)Rated Current of Built-in Fuse (A)Rated Current of Built-in Fuse (A)Rated Output Power (W)4,400Max. Charging Power of Battery (W)4,400Max. Apparent Power (VA)8,000 <sup>®</sup> Max. Charging Power of Battery (W)4,000Rated Output Voltage (V)CRated Output Voltage (V)CRated Output Voltage (V)CRated Output Voltage (V)CRated Current (A)6.7Power FactorCMax. Charging Power of Battery (W)4,400Max. Charging Power of Battery (W)4,400Rated Output Voltage (V)CRated Output Voltage (V)CRated Current (A)6.7Power FactorCMax. Apparent Dower (VA)8,000 <sup>®</sup> , 60sPeak Output Apparent Power (VA)4,400Peak Output Apparent Power (VA)8,000 <sup>®</sup> , 60sPeak Output Apparent Power/per Phase (VA)1,600 <sup>®</sup> Voltage Harmonic DistortionCMax. Efficiency97.3%Max. Battery Discharge Conversion Efficiency97.3% </td <td>Max. Input Power (W)         6,400         8,000           Start-up Voltage (V)         150         150           Max. DC Input Voltage (V)         1,000         1,000           Rated DC Input Voltage (V)         150-850         150-850           No. of MP Trackers         2         2           No. of VP Inputs         1/1         1/1           Max. Input Current (A)         13/13         13/13           Max. Short-circuit Current (A)         18/18         18/18           Battery Voltage Range (V)        </td> <td>Max. Input Power (W)         6,400         8,000         9,600           Start-up Voltage (V)         150         150         180           Max. DC Input Voltage (V)         1,000         1,000         1,000           Rated DC Input Voltage (V)         150         150         850         200.450           No. of PV Inputs         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1</td> <td>Max. Input Power (W)         6,400         8,000         9,600         12,800           Star-tup Voltage (V)         150         150         180         180           Max. DC. Input Voltage (V)         620         620         620         620         620           Max DC. Input Voltage (V)         150-850         150-850         200-850         200-850           No. of MPP Trackers         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2</td> <td>Max. Input Power (W)         6,400         8,000         9,600         12,800         16,000           Start-tyroblage (V)         150         150         180         180         180           Max. CC Input Voltage (V)         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620</td>	Max. Input Power (W)         6,400         8,000           Start-up Voltage (V)         150         150           Max. DC Input Voltage (V)         1,000         1,000           Rated DC Input Voltage (V)         150-850         150-850           No. of MP Trackers         2         2           No. of VP Inputs         1/1         1/1           Max. Input Current (A)         13/13         13/13           Max. Short-circuit Current (A)         18/18         18/18           Battery Voltage Range (V)	Max. Input Power (W)         6,400         8,000         9,600           Start-up Voltage (V)         150         150         180           Max. DC Input Voltage (V)         1,000         1,000         1,000           Rated DC Input Voltage (V)         150         150         850         200.450           No. of PV Inputs         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1         1/1	Max. Input Power (W)         6,400         8,000         9,600         12,800           Star-tup Voltage (V)         150         150         180         180           Max. DC. Input Voltage (V)         620         620         620         620         620           Max DC. Input Voltage (V)         150-850         150-850         200-850         200-850           No. of MPP Trackers         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2	Max. Input Power (W)         6,400         8,000         9,600         12,800         16,000           Start-tyroblage (V)         150         150         180         180         180           Max. CC Input Voltage (V)         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620         620

IEC62109, IEC62116, VDE4105, VDE0126, AS4777, RD1699, NBR16149, IEC61727, IEC60068, IEC61683, EN50549, EN61000, NRS097-2-1, IEC/EN 62477-1

① The battery configuration range can be lowered to 135V in actual practice.

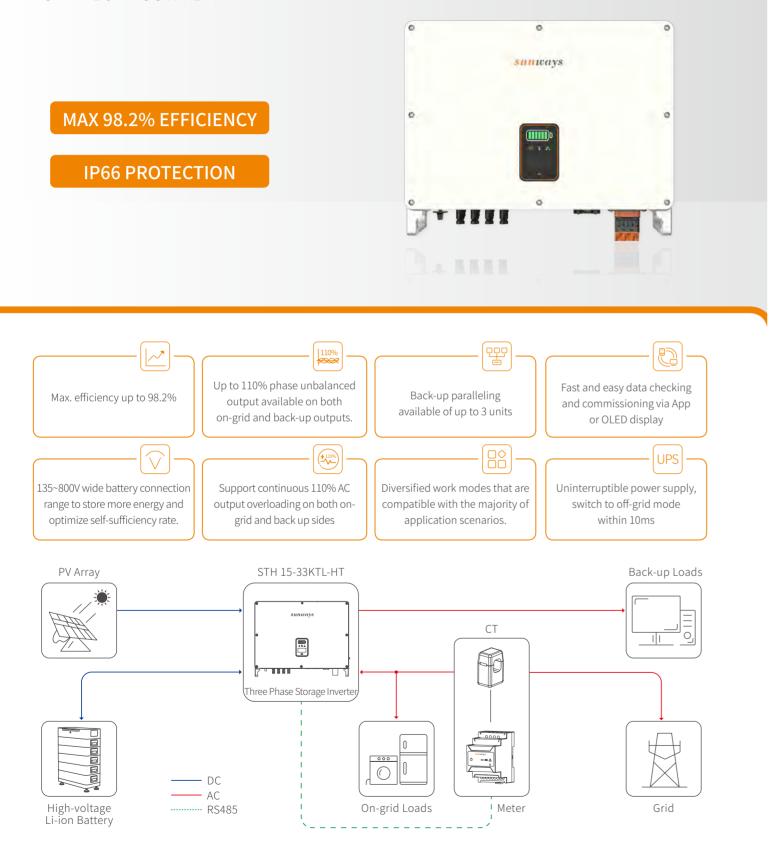
(a) Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery.
 (a) The output power will exceed the rated value only when the power in the PV array is sufficient, and the duration of the overload is relating to the overload power.

④ Only one of the three phases can reach up to 1.25 times, and the other two phases should be less than 1.1.

#### Three Phase:STH-4K~12KTL-HT



Sunways Three Phase Storage Inverter with Two MPPT STH-15K~33KTL-HT



#### **Technical Parameters**

	Model		STH-15KTL-HT	STH-17KTL-	HT STH-20KTL-HT	STH-25KTL-HT	STH-29.9KTL-HT	STH-30KTL-HT	STH-33KTL				
	Max. Input Power (W)		24,000	27,200	32,000	40,000	47,840	48,000	52,800				
	Start-up Voltage (V)		135	135	135	135	135	135	135				
	Max. DC Input Voltage (V)		1000	1000	1000	1000	1000	1000	1000				
	Rated DC Input Voltage (V)		620	620	620	620	620	620	620				
	MPPT Voltage Range (V)		200-850	200-850	200-850	200-850	200-850	200-850	200-850				
PV Input	No. of MPP Trackers		2	2	2	2	2	2	2				
	No. of DC Inputs per MPPT		2/2	2/2	2/2	2/2	2/2	2/2	2/2				
	Max. Input Current (A)		26/26	26/26	26/26	26/26	26/26	26/26	26/26				
	Max. Short-circuit Current (A)		40/40	40/40	40/40	40/40	40/40	40/40	40/40				
	backfeed current to the array (	A)	0	0	0	0	0	0	0				
	Battery Type	7		-	-	Im battery (with	-						
	Battery communication mode					CAN / RS485							
	Battery voltage range (V)		135-800										
Battery	Maximum charging current (A)					50							
	Maximum discharge current (A					50							
	Rated current of built-in fuse (/					125							
	Rated Output Power (W)	7	15,000	17,000	20,000	25,000	29,900	30,000	33,000				
	Max. Output Power (W)		16,500	18,700	22,00	27,500	29,900	33,000	36,300				
	AC output rated apparent pow	er (VA)	15,000	17,000	20,000	25,000	29,900	30,000	33,000				
	Max. Apparent Power (VA)	~· ( */ ')	16,500	18,700	22,000	25,000	29,900	33,000	36,300				
	Max. Input Apparent Power (VA	)	20,000 <sup>①</sup>	22,000	26,000	33,000 <sup>1</sup>	39,000 <sup>1</sup>	39,000 <sup>®</sup>	42,000				
Output	Rated Output Voltage (V)	Ŋ	20,000	22,000		/ N / PE,230 (4		55,000	42,000				
Output (Grid)	Rated AC Frequency (Hz)		50/60	50/60	50/60	50/60	50/60	50/60	50/60				
(0114)	AC output rated current (A)		21.7	24.6	29.0	36.2	43.3	43.5	47.8				
	Max. Output Current (A)		25.0	24.0	33.3	41.7	49.8	50.0	55.0				
	Power Factor		23.0	20.5		eading …0.8 lag		50.0	55.0				
	Max. total harmonic distortion					@Rated Output							
	DCI				-570 (	<0.5%In	i owei						
	Rated Output Power (W)		15,000	17,000	20,000	25,000	29,900	30,000	33,000				
-	Max. Output Power (W)		16,500	18,700	20,000	23,000	29,900	33,000	36,300				
	Back-up output rated apparent power (VA)		15,000	17,000	20,000	25,000	29,900	30,000	33,000				
			16,500	18,700	22,000	23,000	29,900	33,000	36,300				
0.1.1	Back-up output rated current (	Max. Apparent Power (VA)		24.6	22,000	36.2	43.3	43.5	47.8				
Output (Back-up)	Max. Output Current (A)	(A)	21.7 25.0	24.0	33.3	41.7	43.3	50.0	55.0				
(back up)	1												
	UPS switching time		<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms				
	Rated Output Voltage (V)		3L/N/PE, 230 (400)           50/60         50/60         50/60         50/60         50/60										
	Rated AC Frequency (Hz)		50/60	50/60	50/60	0 50/60 50/60							
	Voltage harmonic distortion		00.10/	00.10/		3% @Linear loa	1	00.00/	00.00/				
	Max. Efficiency		98.1%	98.1%	98.1%	98.2%	98.2%	98.2%	98.2%				
	European Efficiency		97.3%	97.3%	97.3%	97.4%	97.4%	97.4%	97.4%				
Effeiciency	MPPT Efficiency	<i></i>	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%				
	Max battery charging conversion		97.2%	97.2%	97.2%	97.3%	97.3%	97.3%	97.3%				
	Max battery discharge conversion	on efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%	97.3%				
rotection				(	General Data								
	olarity Protection		ntegrated		Over voltage categ	orv		PV: II;Ma	ain: III				
			-		Dimensions (mm)			600W*400H					
	reverse connection protection		ntegrated		Weight (KG)			45					
	sistance Protection		ntegrated		Protection Degree			IP66					
C Switch			Optional		Self-consumption	at Night (W)		<15					
urge Protecti	ion	l	ntegrated		Topology			Transform	er less				
ver-tempera	ture Protection	I	ntegrated	(	Operating Tempera	ature Range (° C	.)	-30~6	0				
esidual Curre	ent Protection	l	ntegrated		Relative Humidity (			0~100	)				
landing prot	ection		cy shift, Integrat	ted	Operating Altitude	(m)		4000 (derating					
	ge Protection		ntegrated	(	Cooling			Smart Fan O	Cooling				
	0		-		Noise Level (dB)			<50					
verload protection			ntegrated		Display			OLED &					
	uit Protection				Communication			WiFi/LAN (O					

① Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery.

#### Three Phase:STH-15K~33KTL-HT

Sunways Single Phase AC-coupled Inverter with Two MPPT STR-3~8KTL-HS



### **Technical Parameters**

	Model		STR-3KTL-HS	STR-3.6KTL-HS	STR-4.2KTL-HS	STR-4.6KTL-HS	STR-5KTL-HS	STR-6KTL-HS	STR-7KTL-HS	STR-8KTL-H		
	Battery Type					Lithium batte	ery (with BMS)					
	Battery Communication Mode					CAN/	RS485					
	Battery Voltage Range (V)		85-500	85-500	85-500	85-500	85-500	85-500	85-500	85-500		
Battery	Maximum Charging Current (A)		30	30	30	30	30	30	30	30		
	Maximum Discharge Current (A)		30	30	30	30	30	30	30	30		
	Rated Current Of Built-In Fuse (A)		63	63	63	63	63	63	63	63		
	Rated Output Power (W)		3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000		
	Max. Output Power (W)		3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000		
	AC Output Rated Apparent Powe	r (VA)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000		
	Max. Apparent Power (VA)		3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000		
	Max. Input Apparent Power (VA)		6,000 <sup>1</sup>	7,200 1	8,400 <sup>1)</sup>	9,200 <sup>1</sup>	10,000 1	11,000 1	11,000 1	11,000 1		
Dutput	Rated Output Voltage (V)		L/N/PE, 220/230/240									
Grid)	Rated AC Frequency (Hz)		50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60		
	AC Output Rated Current (A)		13	15.7	18.3	20	21.7	26.1	31.8	36.3		
	Max. Output Current (A)		15	18	21	21	25/21.7	28.7	35	36.3		
	Power Factor		0.8 leading …0.8 lagging									
	Max. Total Harmonic Distortion		<3% @Rated Output Power									
	DCI		<0.5%ln	<0.5%ln	<0.5%ln	<0.5%In	<0.5%ln	<0.5%In	<0.5%In	<0.5%In		
	Rated Output Power (W)		3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000		
	Max. Output Power (W)		3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000		
	Back-up output rated apparent pow	ver (VA)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000		
	Max. Apparent Power (VA)		3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000		
	Back-up output rated current (A)		13	15.7	18.3	20	21.7	26.1	31.8	36.3		
)utput Back-up)	/lax. Output Current (A)		15	18	21	21	25/21.7	28.7	35	36.3		
Баск-ир)	UPS switching time		<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms		
	Rated Output Voltage (V)					L/N/PE, 2	20/230/240	1				
	Rated AC Frequency (Hz)		50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60		
	Peak output apparent power (VA)	)	6,000 <sup>(2)</sup> , 60s	7,200 <sup>2</sup> , 60s	8,400 <sup>2</sup> , 60s	9,200 <sup>2</sup> , 60s	10,000 <sup>©</sup> , 60s	10,000 <sup>②</sup> , 60	s 10,000 <sup>©</sup> , 60s	10,000 <sup>©</sup> , 6		
	Voltage harmonic distortion					<3% @Li						
	Battery Charged By PV Max. Effici	ency	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%		
fficiency	Battery Charged By AC Max. Effici	ency	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%		
	Max Battery Discharge Conversio Efficiency	n	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%		
rotection	1				General D	Data						
Battery inp	out reverse connection protection		Integrate	d	Over volta	age category			Main: III			
	Resistance Protection		Integrate		Dimensio				550W*410H*	175D		
					Weight (K	,			23 IP65			
iurge Prot			Integrate	d	Protectio Self-cons	umption at Nig	oht (W)		<15			
)ver-temp	perature Protection		Integrate	d	Topology		5		Transformer	less		
esidual C	Current Protection		Integrate	d		g Temperature	Range (° C)		-30~60 0~100			
slanding p	protection	Fre	equency shift, I	ntegrated		Relative Humidity (%)						
C Over-w	oltage Protection		Integrate	d		g Altitude (m)			3000 Natural Conve	ection		
	<u> </u>					Cooling Noise Level (dB)						
	protection		Integrate		Display				<25 OLED & LE	D		
AC Short-c	circuit Protection		Integrate	d	Commun	ication			WiFi/LAN (Opt	tional)		

IEC62109, IEC62116, VDE 4105, VDE 0126, AS4777, RD1699, NBR16149, IEC61727, IEC60068, IEC61683, EN50549, EN61000

Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery.
 The output power will exceed the rated value only when the power in the PV array is sufficient, and the duration of the overload is relating to the overload power.

#### Single Phase:STR-3K~8KTL-HS

Sunways Three Phase AC-coupled Inverter with Two MPPT STR-4K~12KTL-HT



#### **Technical Parameters**

	Model	STR-4KTL-HT	STR-5KTL-HT	STR-6KTL-HT	STR-8KTL-HT	STR-10KTL-HT	STR-12KTL-HT	
	Battery Type		Lithium battery (with BMS)					
	Battery communication mode		CAN / RS485					
	Battery voltage range (V)	135-750	135-750	135-750	135-750	135-750	135-750	
Battery	Maximum charging current (A)	25	25	25	25	25	25	
	Maximum discharge current (A)	25	25	25	25	25	25	
	Rated current of built-in fuse (A)	63	63	63	63	63	63	
	Rated Output Power (W)	4,000	5,000	6,000	8,000	10,000	12,000	
	Max. Output Power (W)	4,400	5,500	6,600	8,800	11,000	13,200	
	AC output rated apparent power (VA)	4,000	5,000	6,000	8,000	10,000	12,000	
	Max. Apparent Power (VA)	4,400	5,500	6,600	8,800	11,000	13,200	
	Max. Input Apparent Power (VA)	8,000 1	10,000 1	12,000 1	16,000 1	16,500 1	16,500 <sup>①</sup>	
Output	Rated Output Voltage (V)			3L/N/PE,	230 (400)			
(Grid)	Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	
	AC output rated current (A)	5.8	7.3	8.7	11.6	14.5	17.4	
	Max. Output Current (A)	6.7	8.3	10	13.3	16.5	20	
	Power Factor				···0.8 lagging			
	Max. total harmonic distortion		0.8 leading …0.8 lagging <3% @Rated Output Power					
	DCI	<0.5%In	<0.5%ln	<0.5%In	<0.5%ln	<0.5%ln	<0.5%In	
	Rated Output Power (W)	4,000	5,000	6,000	8,000	10,000	12,000	
	Max. Output Power (W)	4,400	5,500	6,600	8,800	11,000	13,200	
	Back-up output rated apparent power (V		5,000	6,000	8,000	10,000	12,000	
	Max. Apparent Power (VA)	4,400	5,500	6,600	8,800	11,000	13,200	
	Back-up output rated current (A)	5.8	7.3	8.7	11.6	14.5	17.4	
Output	Max. Output Current (A)	6.7	8.3	10	13.3	16.5	20	
(Back-up)	UPS switching time	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	
	Rated Output Voltage (V)			3L/N/PE,	230 (400)		1	
	Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	
	Peak output apparent power (VA)	8,000 <sup>2</sup> , 60s	10,000 <sup>2</sup> , 60s	12,000 <sup>2</sup> , 60s	16,000 <sup>2</sup> , 60s	20,000 <sup>2</sup> , 60s	20,000 <sup>2</sup> , 60s	
	Voltage harmonic distortion			<3% @Linear load			1	
	Max battery charging conversion efficien	су 97.2%	97.2%	97.2%	97.3%	97.3%	97.3%	
Efficiency	Max battery discharge conversion efficient	ncy 97.2%	97.2%	97.2%	97.3%	97.3%	97.3%	
Protection			Conora	Data				
	but reverse connection protection	Integrated	General Data Over voltage category			Main: III		
	· · · · · · · · · · · · · · · · · · ·			imensions (mm)		550*410*175		
	Resistance Protection	Integrated		ght (KG)		23		
Surge Prot	ection	Integrated		ction Degree consumption at Night (W)		IP65 <15		
Over-HTer	nperature Protection	Integrated		opology		Transformer less		
Residual C	Current Protection	Integrated		Operating Temperature Range (° C)		-30~60		
Islanding	protection Fre	equency shift, Integrate	20 ————————————————————————————————————	Relative Humidity (%)		0~100		
AC Over-vo	oltage Protection	Integrated		Operating Altitude (m) Cooling		3000 Natural Convection		
Overload p	protection	Integrated				<25		
AC Short-circuit Protection		Integrated	Display		OLED & LED			
			Comm	unication		WiFi/LAN	(Optional)	
Complianc	e							

IEC62109、IEC62116、VDE 4105、VDE 0126、AS4777、RD1699、NBR16149、IEC61727、IEC60068、IEC61683、EN50549、EN61000

① Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery. (2) The output power will exceed the rated value only when the power in the PV array is sufficient, and the duration of the overload is relating to the overload power.

#### Three Phase:STR-4K~12KTL-HT



#### WIFI Module

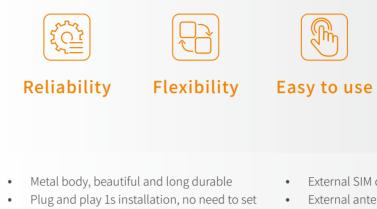
H ₹<u>0</u>7 Reliability Flexibility Extensibility

. COM

- Plug and play 1s installation
- Metal body, beautiful and long durable
- Easy to configure with Sunways Monitoring App
- Support local and remote monitoring
- IP65, for both indoor and outdoor installation
- Enable mobile monitoring at anytime anywhere

## **PRODUCT INTRODUCTION**

**GPRS** Module



- Support local and remote monitoring
- •
- IP65, for both indoor and outdoor installation

### **Technical Parameters**

General Data	
Max. No. of Inverters	1
Inverter Communication	USB3.0
Remote Communication	WIFI (802.11 b/g/n)
Serial Port Communication Rate (bps)	115200
Communication Distance (M)	100 (without obstacles)
External Antenna	SMA water-proof glue stick antenna
Data Intervals	Remote configuration available
Preference Setting	Remote Web、APP
Data Access	Remote server
Working Voltage (V)	DC 5
Working Current (mA)	80 (200 Peak)
Wireless Data	
WiFi Transmitting Power	802.11b: +16 +/-2dBm (@11Mbps)、 802.11g: +14 +/-2dBm (@54Mbps)、 802.11n: +13 +/-2dBm (@HT20, MCS7
WiFi Receiving Sensitivity	802.11b: -87 dBm (@11Mbps ,CCK)、 802.11g: -73 dBm (@54Mbps, OFDM)、 802.11n: -71 dBm (@HT20, MCS7
WiFi Operating Frequency (GHz)	2.412-2.484
Environmental Data	
Operating Temperature (°C )	-10~+60
Operating Humidity	0%-90% relative humidity, no condensation
Storage Temperature (°C )	-40~+85
Storage Humidity (%)	< 40
Protection Degree	IP65
Other Data	
Dimensions (mm)	156L*52W*30H
Weight (g)	130
Certificates	CE
Warranty	2 years

### **Technical Parameters**

General Data	
Max. No. of Inverters	1
Inverter Communication	USB3.0
External Antenna	SMA water-proof glue stick antenna
Data Intervals	Remote configuration available
Preference Setting	Remote Web、APP
Data Access	Remote server
Working Voltage (V)	DC 5
Working Current (mA)	130 (600 Peak)
Wireless Data	
WirelessTransmitting Power (dbm)	GSM850/EGSM900: 5~32.5、DCS1800/PCS1900: 0~29.5
Wireless Receiving Sensitivity (dBm)	<-108.5
Wireless Operating Frequency	GSM850, EGSM900, DCS1800, PCS1900
GPRS Connection Features	GPRS multi-slot class is 10 (default), GPRS mobile station class B
Environmental Data	
Operating Temperature (°C )	-10~+60
Operating Humidity (%)	0-90 relative humidity, no condensation
Storage Temperature (°C )	- 40~+85
Storage Humidity (%)	< 40
Protection Degree	IP65
Other Data	
Dimensions (mm)	156L*52W*30H
Weight (g)	140
Certificates	SRRC
Warranty	2 years







• External SIM card slot, easier for SIM card replacement External antenna, stronger signal and reliable communication Enable mobile monitoring at anytime anywhere



## LAN Module M Reliability Flexibility Easy to use • Plug and play 1s installation • Remote upgrade available • Data encrypted to ensure data security

- Supports breakpoint retransmission
- Stable and reliable data transmission via wired internet cable

. COM

• Default dynamic IP mode and static IP commissioning available

### **Technical Parameters**

	General Data
Max. No. of Inverters	1
Inverter Communication	USB3.0
Remote Communication	IEEE802.3 10
Serial Port Communication Rate(bps)	115200
Communication Distance(M)	100 (MAX)
Data Intervals	Remote configuration available
Preference Setting	Remote Web、APP
Data Access	Remote server
Working Voltage(V)	DC 5
Working Current (mA)	100 (220 Peak)
	Environmental Data
Operating Temperature (°C )	-30~+75
Operating Humidity	0%-90% relative humidity, no condensation
Storage Temperature (°C )	-40~+85
Storage Humidity	< 40%
Protection Degree	IP65
	Other Data
Dimensions (mm)	116L*52W*30H
Weight (g)	100
Certificates	CE
Warranty	2 years

## PRODUCT INTRODUCTION

Sunways Smart Meter

SТМ



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limitation & control

Various models of CT are available





various grid types

High current measurement precision

### **Technical Parameters**

MODEL Voltage Frequency Rated Current Self-consumption Data Detection Curre Energy Calculation Active Power Precision Reactive Power Communication Interface Terminal capacity Size (L\*W\*H) Mechanical Parameters Weight Protection Class Installation Method Operating Temperature Operating Humidity Altitude



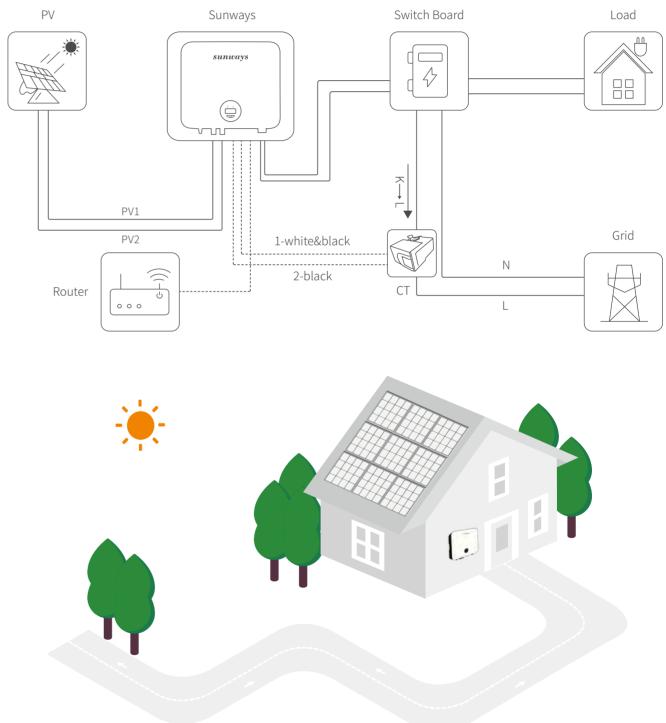
STM
85~265V
50/60Hz
90A/120A/300A (With CT)
<3W
rent/Voltage/Active Power/Reactive Power/Power Factor/Frequency
Bidirectional Active/Reactive Power Energy
Class 1 (IEC 62053-22)
Class 1 (IEC 62053-23)
Modbus RTU (RS485)
3 LED, Reset Button
0.5~4mm <sup>2</sup>
85*54*75mm
150g
IP20 (For Indoor Use)
35mm DIN Rail
-25 ~ +60° C
<95%, No Condensation
<2500m



#### Sunways Energy Manager STK .... ৵ৢ৾৽ H Export Various models of Compatible with sunways limitation & control CT are available various grid types $\bigcirc h \widehat{\widehat{\ast}} \propto \boxtimes \Lambda$ 6 श्ली 6 $\sim$ Integrated features of High current 24/7 Real-time measurement precision consumption monitoring WiFi/LAN/RS485

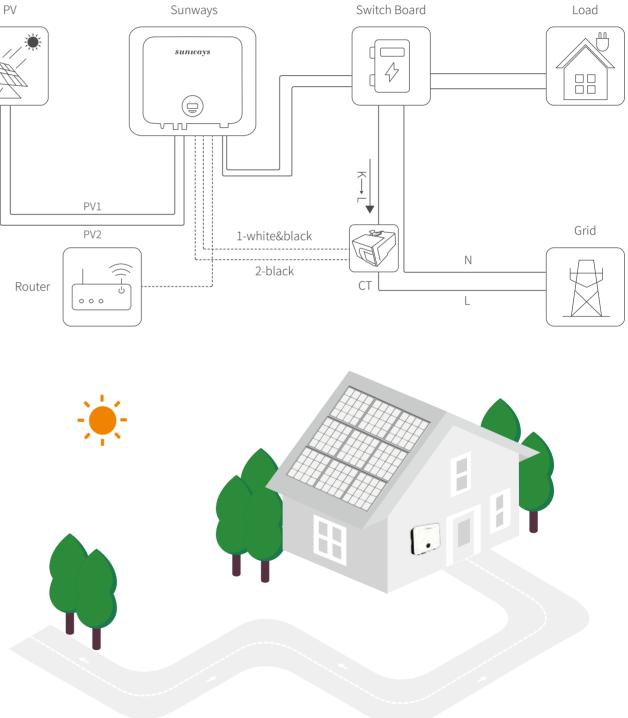
## ■ APPLY SCENARIOS

Generally, Grid connected PV inverters are used on the residential and commercial roof. The PV system consists of photovoltaic array, grid-connected inverter, grid, and load. According to the application scenarios which has been choosen is all power exported to grid or only surplus power exported to the grid to decide whether the load should be connected to the system.

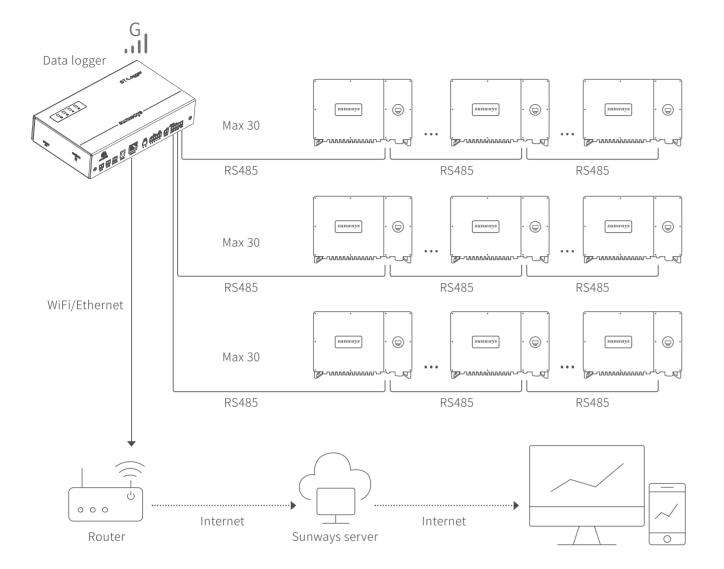


### **Technical Parameters**

MODEL		STK		
Voltage		85~265V		
Frec	luency	50/60Hz		
Rated	Current	90A/120A/300A (With CT)		
Self-cor	sumption	<5W		
Data D	etection	Current/Voltage/Active Power/Reactive Power/Power Factor/Frequency		
Energy C	Calculation	Bidirectional Active/Reactive Power Energy		
	Active Power	Class 1 (IEC 62053-22)		
Precision	Reactive Power	Class 1 (IEC 62053-23)		
Comm	unication	Modbus RTU (RS485)、WiFi/LAN/Bluetooth		
Inte	erface	5 LED, Reset Button		
	Terminal capacity	0.5~4mm <sup>2</sup>		
	Size (L*W*H)	85*54*75mm		
Mechanical Parameters	Weight	150g		
	Protection Class	IP20 (For Indoor Use)		
	Installation Method	35mm DIN Rail		
Operating Temperature		-25 ~ +60° C		
Operating Humidity		<95%, No Condensation		
Altitude		<2500m		

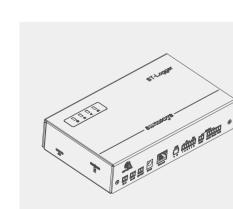


## **MONITORING SYSTEM**









Data logger

#### **Flexible Networking**

- Monitoring of up to 90 devices
- Support of RS485, Ethernet, WiFi and GPRS communication
- Support of energy meter, meteo station, sensors and other equipment access

#### **Convenient O&M**

- Active and reactive power control
- 100% data availability through 24/7 operations
- Inverter batch parameter setting and firmware updates
- Plant maintenance by remote Web access, optimized OPEX





## ■ CERTIFICATES

AT		1			
CERTIFIC	Compliance No. D 104339 0024 Re	Document	tart Service		
RTIFICADO +	Holder of Certificate:	Ningbo Sumways Technologies Co.,Ltd. No. Second Read Second Read Chargebox Team Chargebox Team St354 CEL/Ningbo.Zhijang PEOPLE'S REPLALIC OF CHERA		Certificate	of Suitability endum*
рикат 🔸 сеі	Product:	Converter GRID-CONNECTED PV INVERTER	Genor	Date of Issue:	6 November 2019 Nor-Declard Grid-connected PV Inverter
• CEPTM	This Compliance document cont It refers only to the sample subm safety of the serial products. For	Ime the compliance with the listed standards on a voluntary basis, the for tweining and certification and does not certify the quality or details see: www.tuvsud.com/ps-cert		Ional Models. Trade Name Rating IATL surveys Input: MPP volt Cutput: 220V - 2KTL surveys Input: MPP volt Cutput: 220V -	gar range: 100-550946; Max 400946; Max 2012 SA, Ho: 2015A Sket Max 21A, 440090; Max 440008; gar range: 100-550946; Max 460096; Max 2012 SA, Ho: 2015A Sket Max 21A, 420090; Max 460094; gar range: 100-550946; Max 460094; Max 2012 SA, Ho: 2015A Sket Max 10A, 100096; Max 360094; Max 2015 Max 10A, 2015
◆ 結證證書	Test report no.:	704001914505-00	575-3	Output: 230V - 1	224tr Max 16A, 3600W, Max 2460WA ga range: 100-6504tc, Max 4004tc, Max 2x12.5A, Inc: 2x15A Scient Max 15A, 3000W, Max 3200WA
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RD1699



## **SUPPORT**



# 05 CASE STUDY



Project Address: Lishui, China Project Capacity: 3.168MW Inverter: 48 sets of Sunways STT 60kW inverter

### Fast

7×24H Hotline

Local Support Provide professional and rapid local service

Within 24H Quick response

Training Provide quality and comprehensive products training





Project Address: Cixi, China Project Capacity: 1.1MW Inverter: 20 sets of Sunways STT 50kW inverter





Project Address: Serra, Brazil Project Capacity: 390kW Inverter: 6 sets of Sunways STT 60kW inverter





Project Address: Gujarat, India Project Capacity: 5kW Inverter: 1 set of Sunways STS 5kW inverter

