



FusionSolar Residential & Commercial Smart PV Solution

SOLAR.HUAWEI.COM



HUAWEI

About Huawei

Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. With integrated solutions across four key domains – telecom networks, IT, smart devices, and cloud services – we are committed to bringing digital to every person, home and organization for a fully connected, intelligent world. Huawei's end-to-end portfolio of products, solutions and services are both competitive and secure. Through open collaboration with ecosystem partners, we create lasting value for our customers, working to empower people, enrich home life, and inspire innovation in organizations of all shapes and sizes. At Huawei, innovation focuses on customer needs. We invest heavily in basic research, concentrating on technological breakthroughs that drive the world forward.

Our 2018 sales revenue was US\$105.2 billion, YoY growth of 19.5%.

Employees
188,000+

R&D Personnel
80,000+

Countries
170+

Interbrand's Top 100 Best Global Brands
68

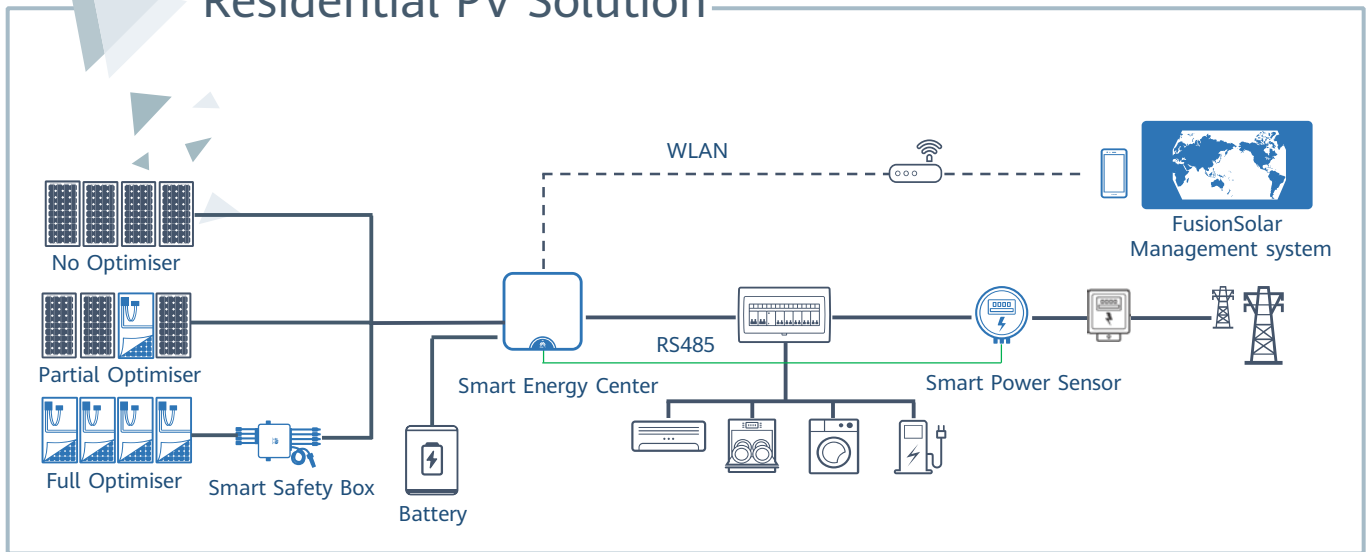
Fortune Global 500
72

Research institutes /labs/centers
14

1 No.1
In global shipment 2015-2018

90GW+
Accumulated global shipment as of Dec. 2018

Residential PV Solution



Installer Benefits

Easier design with optimisers meeting either simple or complex rooftops

Lighter inverter & optimized AC connector for one person easy installation

Proven product reliability with 90+ GW global shipment & <0.5% inverter failure rate

Homeowner Benefits

Up to 30% more energy by optimizing each module performance

Battery ready by direct plug & play, future proof

Visible power flow for easy home energy management





reddot award 2016
winner



Higher Revenue

Max. efficiency 98.6%



Simple & Easy

Optimized AC connector



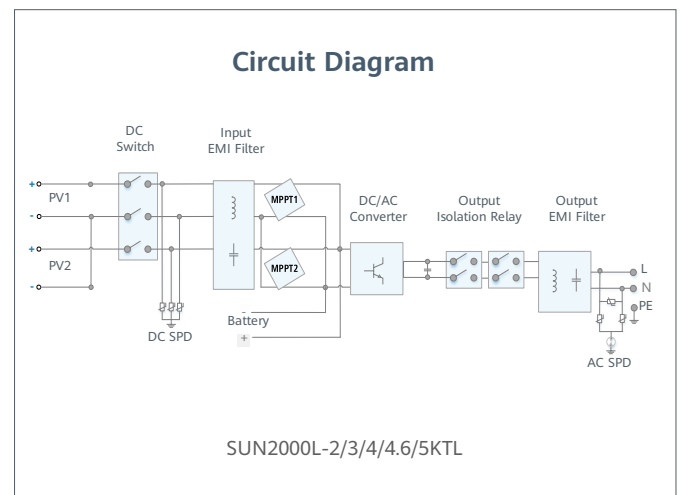
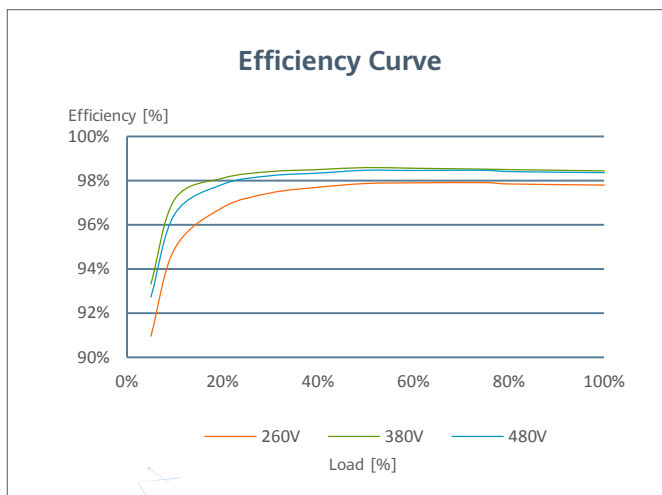
Battery Ready

Plug & Play battery interface



Safe & Reliable

DC & AC lightning protection



SUN2000L-2/3/4/4.6/5KTL Technical Specification

Technical Specification	SUN2000L -2KTL	SUN2000L -3KTL	SUN2000L -4KTL	SUN2000L -4.6KTL	SUN2000L -5KTL
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Efficiency

Max. efficiency	98.4 %	98.5 %	98.6 %	98.6 %	98.6 %
European weighted efficiency	97.0 %	97.6 %	97.9 %	98.0 %	98.0 %

Input

Recommended max. PV power	3,000 Wp	4,500 Wp	6,000 Wp	6,900 Wp	7,500 Wp
Max. input voltage ¹	600 V / 495 V ¹				
Operating voltage range ¹	90 V~ 600 V / 90 V~ 495 V ¹				
Start-up voltage	120 V				
Full power MPPT voltage range	120 V ~ 480 V	160 V ~ 480 V	210 V ~ 480 V	260 V ~ 480 V	260 V ~ 480 V
Rated input voltage	380 V				
Max. input current per MPPT	11 A				
Max. short-circuit current	15 A				
Number of MPP trackers	2				
Max. number of inputs per MPPT	1				

Output

Grid connection	Single phase				
Rated output power	2,000 W	3,000 W	4,000 W	4,600 W	4,990 W
Max. apparent power	2,200 VA	3,300 VA	4,400 VA	4,990 VA	4,990 VA
Rated output voltage	220 V / 230 V / 240 V				
Rated AC grid frequency	50 Hz / 60 Hz				
Max. output current	10 A	15 A	20 A	21.7 A	21.7 A
Adjustable power factor	0.8 leading ... 0.8 lagging				
Max. total harmonic distortion	≤ 3 %				

Protection

Anti-islanding protection	Yes
DC reverse polarity protection	Yes
Insulation monitoring	Yes
DC surge protection ²	Yes
AC surge protection ²	Yes
Residual current monitoring	Yes
AC overcurrent protection	Yes
AC short-circuit protection	Yes
AC overvoltage protection	Yes
Over-heat protection	Yes

General Data

Operating temperature range	-30 ~ +60 °C (Derating above 45°C @ Rated output power)
Relative operating humidity	0 %RH ~ 100 %RH
Operating altitude	0 - 4,000 m (Derating above 2,000 m)
Cooling	Natural convection
Display	LED indicators
Communication	RS485, WLAN
Weight (incl. mounting bracket)	10.6 kg (23.4 lb)
Dimension (incl. mounting bracket)	375 x 375 x 161.5 mm (14.8 x 14.8 x 6.4 inch)
Degree of protection	IP65

Battery Compatibility

Battery	LG Chem RESU 7H_R / 10H_R
Voltage range	350 ~ 450 Vdc
Max. current	10 A
Communication	RS485

Standard Compliance (more available upon request)

Safety	EN/IEC 62109-1, EN/IEC 62109-2
Grid connection standards	AS/NZS 4777:2015

¹ Only applicable for PV string. The maximum input voltage and operating voltage upper limit will be reduced to 495V when inverter connects and works with LG battery.
² Compatible TYPE II protection class according to EN/IEC 61643-11



Higher Revenue

Max. efficiency 98.6%



Simple & Easy

17 kg, one person easy installation



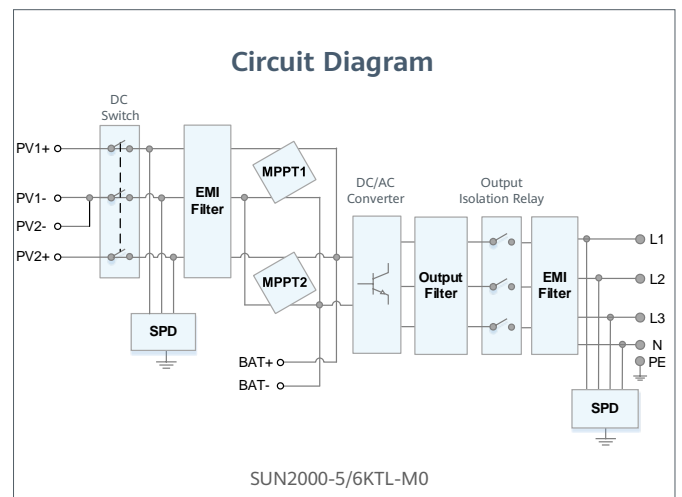
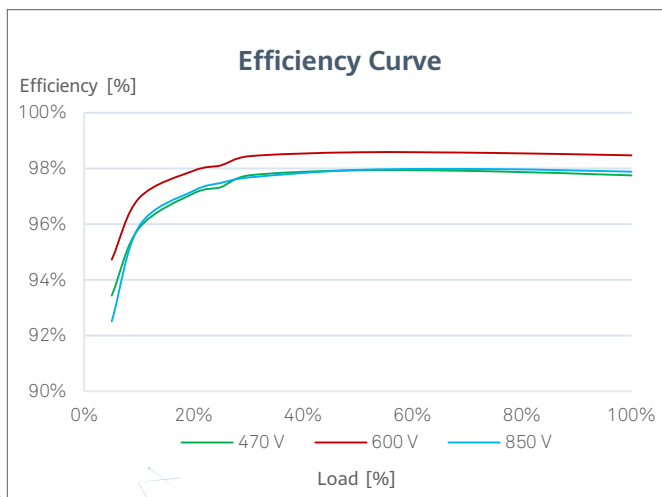
Battery Ready

Plug & Play battery interface



Safe & Reliable

Built-in Arc fault protection



SUN2000-5/6KTL-M0 Technical Specification

Technical Specification	SUN2000-5KTL-M0	SUN2000-6KTL-M0
Efficiency		
Max. efficiency	98.4%	98.6%
European weighted efficiency	97.5%	97.7%
Input		
Recommended max. PV power	10,250 Wp	12,300 Wp
Max. input voltage ¹	1,100 V	
Operating voltage range ²	140 V ~ 980 V	
Start-up voltage	200 V	
Full power MPPT voltage range	240 V ~ 850 V	285 V ~ 850 V
Rated input voltage	600 V	
Max. input current per MPPT	11 A	
Max. short-circuit current	15 A	
Number of MPP trackers	2	
Max. number of inputs	2	
Output		
Grid connection	Three-phase	
Rated output power	5,000 W	6,000 W
Max. apparent power	5,500 VA	6,600 VA
Rated output voltage	220 Vac / 380 Vac, 230 Vac / 400 Vac, 3W / N+PE	
Rated AC grid frequency	50 Hz / 60 Hz	
Max. output current	8.5 A	10.1 A
Adjustable power factor	0.8 leading ... 0.8 lagging	
Max. total harmonic distortion	≤ 3 %	
Features & Protections		
Input-side disconnection device	Yes	
Anti-Islanding protection	Yes	
DC reverse polarity protection	Yes	
Insulation monitoring	Yes	
DC surge protection ³	Yes	
AC surge protection ³	Yes	
Residual current monitoring	Yes	
AC overcurrent protection	Yes	
AC short-circuit protection	Yes	
AC overvoltage protection	Yes	
Arc fault protection	Yes	
Ripple receiver control	Yes	
General Data		
Operating temperature range	-25 ~ + 60 °C (-13 °F ~ 140 °F) (Derating above 45 °C @ Rated output power)	
Relative operating humidity	0 %RH ~ 100 %RH	
Operating altitude	0 - 4,000 m (13,123 ft.) (Derating above 3000 m)	
Cooling	Natural convection	
Display	LED Indicators; Integrated WLAN + FusionSolar App	
Communication	RS485; WLAN via Smart Dongle-WLAN; 4G / 3G / 2G via Smart Dongle-4G	
Weight (incl. mounting bracket)	17 kg (37.5 lb)	
Dimension (incl. mounting bracket)	525 x 470 x 166 mm (20.7 x 18.5 x 6.5 inch)	
Degree of protection	IP65	
Battery Compatibility		
Battery Interface	Integrated ⁴	
Standard Compliance (more available upon request)		
Certificate	EN/IEC 62109-1, EN/IEC 62109-2, IEC 62116	
Grid connection standards	AS/NZS 4777:2015	

*1 The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.

*2 Any DC input voltage beyond the operating voltage range may result in inverter improper operating.

*3 Compatible TYPE II protection class according to EN/IEC 61643-11

*4 Compatible battery solution will be available in 2020 H2

Smart PV Optimiser



Higher Revenue

Max. efficiency 99.5%



Simple & Easy

Easier design with optimisers



Safe & Reliable

IP68

Technical Specification	SUN2000P-375W
Input	
Rated input power ¹	375 W
Absolute maximum input voltage	80 V
MPPT operating voltage range	10 - 80 V
Max. input current	12 A
Max. efficiency	99.5 %
Weighted efficiency	99.0 %
Overvoltage category	II
Output	
Max. output voltage	80 V
Max. output current	10 A
Output bypass	Yes
Standard Compliance	
Safety	IEC62109-1 (class II safety)
RoHS	Yes
General Specification	
Maximum allowed system voltage	1,000 V
Dimension (W x H x D)	125 x 150 x 25.2 mm (4.9 x 5.9 x 1.0 inch)
Weight (including cables)	0.7 kg (1.5 lb.)
Installation part	Aluminum Extruded Sections / Photovoltaic Panel Frame
Input connector	MC4
Output connector	MC4
Output wire length	1.2 m (3.9 ft.)
Operating temperature / humidity range	-40 °C ~ 85 °C / 0 %RH ~ 100 %RH
Degree of protection	IP68

¹ Rated input power of the module. Module of up to +5% power tolerance allowed.

Smart PV Safety Box



Simple & Easy

Module-level management



Safe & Reliable

Module-level shutdown

Technical Specification	SmartPSB2000L
Input	
Maximum input voltage	600 V
Number of inputs	2
Maximum input current per input	15 A
Output	
Maximum output voltage	600 V
Number of outputs	2
Maximum output current per output	15 A
Feature	
Module-level remote management	Yes
Onsite master module shutdown	Yes
General Data	
Dimension (H x W x D)	149 x 149 x 49 mm (5.9 x 5.9 x 1.9 inch)
Weight	0.8 kg (1.8 lb)
Display	LED Indicator
Communication with inverter	RS485
Input type	Amphenol HH4
Protection class (according to IEC 61140)	II
Operating temperature range	-30 °C ~ 55 °C
Degree of protection (according to IEC 60529)	IP65
Optimiser Compatibility	
DC MBUS compatible optimizer	SUN2000P-375W

Smart Power Sensor



Accurate

Class 1 measurement accuracy



Simple & Easy

LCD display, easy to set and check

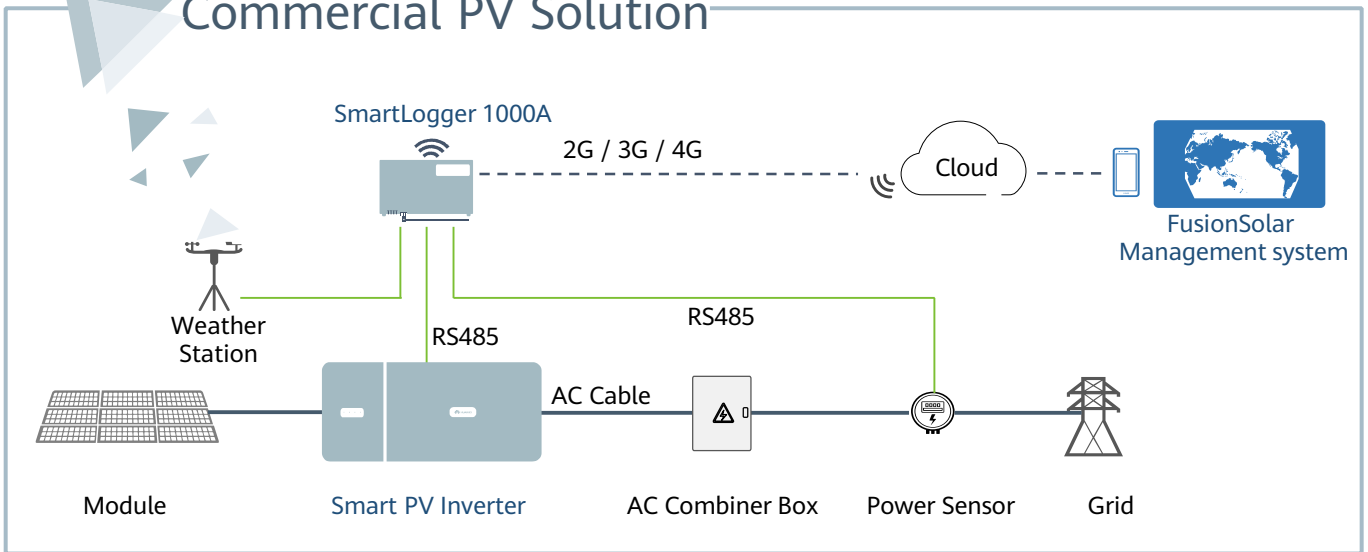


Energy Efficient

Overall power consumption ≤ 1 W

Technical Specification	DDSU666-H	DTSU666-H	DTSU666-H 250A/50mA
General Data			
Dimension (H x W x D)	100 x 36 x 65.5 mm (3.9 x 1.4 x 2.6 inch)	100 x 72 x 65.5 mm (3.9 x 2.8 x 2.6 inch)	
Mounting type	DIN35 Rail		
Weight (including cables)	1.2 kg (2.6 lb)	1.5 kg (3.3 lb)	
Power Supply			
Power grid type	1P2W	3P4W	
Input voltage (phase voltage)	176 Vac ~ 288 Vac		
Power consumption	≤ 0.8 W	≤ 1 W	
Measurement Range			
Line voltage	/	304 Vac ~ 499 Vac	
Phase voltage	176 Vac ~ 288 Vac		
Current	0 ~ 100 A	0 ~ 100 A	0 ~ 250 A
Measurement Accuracy			
Voltage	± 0.5 %		
Current / Power / Energy	± 1 %		
Frequency	± 0.01 Hz		
Communication			
Interface	RS485		
Baud rate	9,600 bps		
Communication protocol	Modbus-RTU		
Environment			
Operating temperature range	-25 °C ~ 60 °C		
Storage temperature range	-40 °C ~ 70 °C		
Operating humidity	5 %RH ~ 95 %RH (non-condensing)		
Others			
Accessories	RS485 Cable (10 m / 33 ft.)		
	1 CT 100 A/40 mA (5 m/16.4 ft.)	3 CT 100 A/40 mA (5 m/16.4 ft.)	3 CT 250 A/50 mA (5 m/16.4 ft.)

Commercial PV Solution



Safe & Reliable

Fuse-free design for superior safety

Natural cooling fully sealed design for better reliability

Higher Yields

Multi-MPPT to reduce string mismatch

Euro. Efficiency 98.7% for higher yields

Smart O&M

String-level monitoring for fast trouble-shooting

One click I-V curve diagnosis making unhealthy modules visible



Smart String Inverter



Higher Revenue

Max. efficiency 98.65%



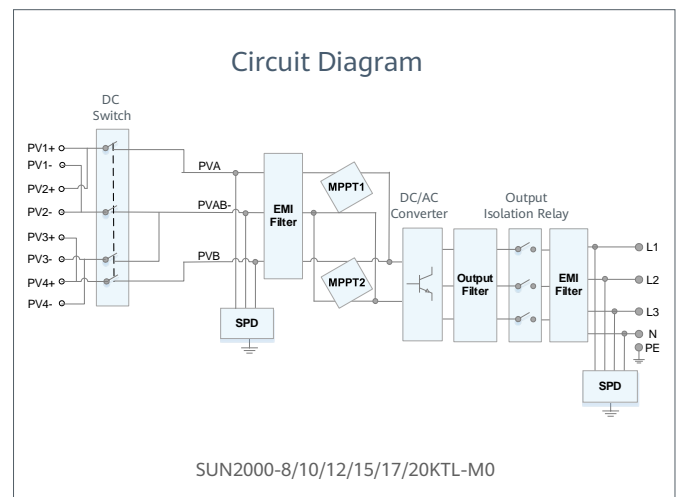
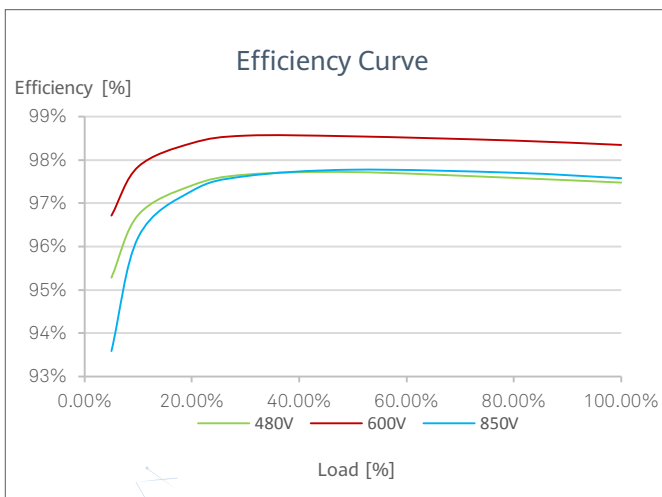
Simple & Easy

25 kg



Safe & Reliable

Built-in Arc fault protection



SUN2000-8/10/12/15/17/20KTL-M0

Technical Specification

Technical Specification	SUN2000 -8KTL-M0	SUN2000 -10KTL-M0	SUN2000 -12KTL-M0	SUN2000 -15KTL-M0	SUN2000 -17KTL-M0	SUN2000 -20KTL-M0
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Efficiency

Max. efficiency	98.50%	98.50%	98.50%	98.65%	98.65%	98.65%
European weighted efficiency	98.00%	98.00%	98.00%	98.30%	98.30%	98.30%

Input

Recommended max. PV power	16,000 Wp	20,000 Wp	24,000 Wp	26,880 Wp	26,880 Wp	26,880 Wp
Max. input voltage ¹	1,080 V					
Operating voltage range ²	160 V ~ 950 V					
Start voltage	200 V					
Rated input voltage	600 V					
Max. input current per MPPT	22 A					
Max. short-circuit current	30 A					
Number of MPP trackers	2					
Max. number of inputs	4					

Output

	Three phase					
Rated output power	8,000 W	10,000 W	12,000 W	15,000 W	17,000 W	20,000 W
Max. apparent power	8,800 VA	11,000 VA	13,200 VA	16,500 VA	18,700 VA	22,000 VA
Rated output voltage	220 Vac / 380 Vac, 230 Vac / 400 Vac, 3W + N + PE					
Rated AC grid frequency	50 Hz / 60 Hz					
Max. output current	13.4 A	17 A	20 A	25.2 A	28.5 A	33.5 A
Adjustable power factor	0.8 leading ... 0.8 lagging					
Max. total harmonic distortion	≤ 3 %					

Features & Protections

Input-side disconnection device	Yes
Anti-islanding protection	Yes
AC over-current protection	Yes
AC short-circuit protection	Yes
AC over-voltage protection	Yes
DC reverse-polarity protection	Yes
DC surge protection ³	Yes
AC surge protection ³	Yes
Residual current monitoring unit	Yes
Arc fault protection	Yes
Ripple receiver control	Yes

General Data

Operation temperature range	-25 ~ + 60 °C (-13 °F ~ 140 °F) (Derating above 45 °C @ Rated output power)
Relative humidity	0 % RH ~ 100% RH
Max. operating altitude	0 - 4,000 m (13,123 ft.) (Derating above 2000 m)
Cooling	Natural Convection
Display	LED Indicators
Communication	RS485; WLAN via Smart Dongle-WLAN; 4G / 3G / 2G via Smart Dongle-4G
Weight (incl. mounting plate)	25 kg
Dimensions (W x H x D) (incl. mounting plate)	525 x 470 x 262 mm (20.7 x 18.5 x 10.3 inch)
Degree of protection	IP65

Standard Compliance (more available upon request)

Safety	EN/IEC 62109-1, EN/IEC 62109-2, IEC 62116
Grid connection standards	AS/NZS 4777:2015

¹ The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.

² Any DC input voltage beyond the operating voltage range may result in inverter improper operating.

³ Compatible TYPE II protection class according to EN/IEC 61643-11

Smart String Inverter



Smart

8 strings intelligent monitoring



Efficient

Max. efficiency 98.6%



Safe

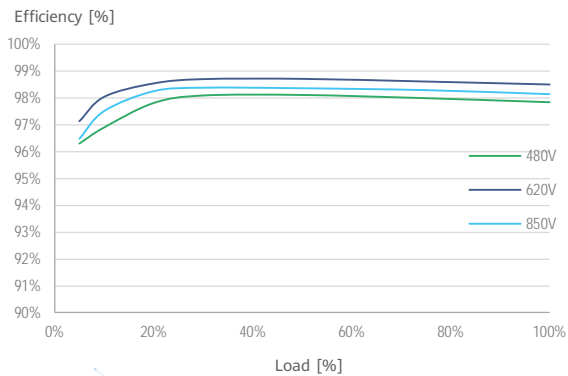
Fuse free design



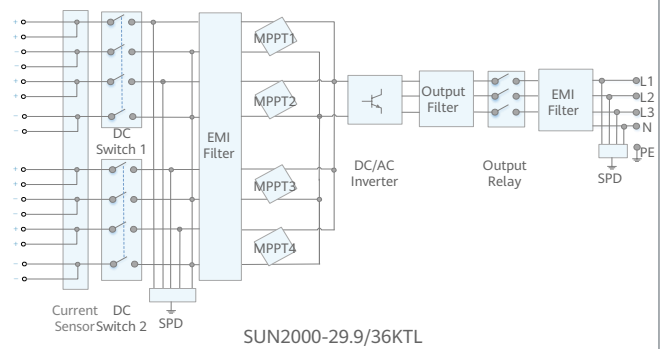
Reliable

Type II surge arresters for both DC & AC

Efficiency Curve



Circuit Diagram



Technical Specification	SUN2000-29.9KTL	SUN2000-36KTL
Efficiency		
Max. Efficiency	98.6%	
European Efficiency	98.4%	
Input		
Max. Input Voltage	1,100 V	
Max. Current per MPPT	22 A	
Max. Short Circuit Current per MPPT	30 A	
Start Voltage	250 V	
MPPT Operating Voltage Range	200 V ~ 1,000 V	
Rated Input Voltage	620 V	
Number of Inputs	8	
Number of MPP Trackers	4	
Output		
Rated AC Active Power	29,900 W	36,000 W
Max. AC Apparent Power	29,900 VA	40,000 VA
Max. AC Active Power ($\cos\phi=1$)	29,900 W	Default 40,000 W; 36,000 W optional in settings
Rated Output Voltage	220 V / 380 V, 230 V / 400 V, default 3W + N + PE; 3W + PE optional in settings	
Rated AC Grid Frequency	50 Hz / 60 Hz	
Rated Output Current	43.2 A	54.6 A @380 V / 52.2 A @ 400 V
Max. Output Current	43.2 A	60.8 A @380 V / 57.8 A @ 400 V
Adjustable Power Factor Range	0.8 leading... 0.8 lagging	
Max. Total Harmonic Distortion	≤ 3 %	
Protection		
Input-side Disconnection Device	Yes	
Anti-islanding Protection	Yes	
AC Overcurrent Protection	Yes	
DC Reverse-polarity Protection	Yes	
PV-array String Fault Monitoring	Yes	
DC Surge Arrester	Type II	
AC Surge Arrester	Type II	
DC Insulation Resistance Detection	Yes	
Residual Current Monitoring Unit	Yes	
Communication		
Display	LED Indicators, Bluetooth + APP	
RS485	Yes	
USB	Yes	
Monitoring BUS (MBUS)	Yes	
General Data		
Dimensions (W x H x D)	930 x 550 x 283 mm (36.6 x 21.7 x 11.1 inch)	
Weight (with mounting plate)	62 kg (136.7 lb.)	
Operating Temperature Range	-25°C ~ 60°C (-13°F ~ 140°F)	
Cooling Method	Natural Convection	
Max. Operating Altitude	4,000 m (13,123 ft.)	
Relative Humidity	0 ~ 100%	
DC Connector	Amphenol Helios H4	
AC Connector	Cable Gland + OT Terminal	
Protection Degree	IP65	
Topology	Transformerless	
Standard Compliance (more available upon request)		
Certificate	EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 60068, IEC 61683	
Grid Code	IEC 61727, AS/NZS 4777.2	

Smart String Inverter



Smart I-V Curve
Diagnosis supported



Max. efficiency 98.7%



Fuse free design



Protection degree of IP65



12 strings intelligent
monitoring and fast
trouble-shooting



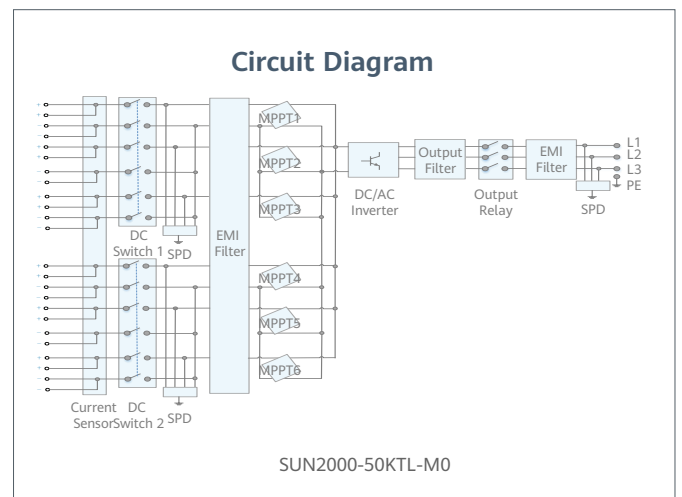
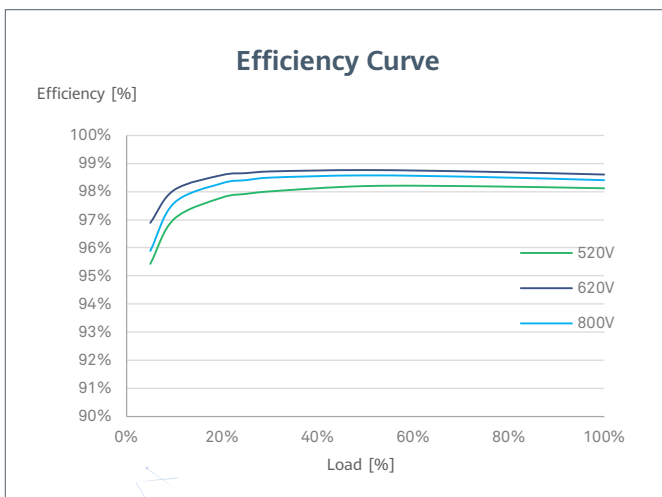
Type II surge arresters
for both DC and AC



Residual Current
Monitoring Unit (RCMU)
integrated



MBUS supported



Technical Specification	SUN2000-50KTL-M0
Efficiency	
Max. Efficiency	98.7%
European Efficiency	98.5%
Input	
Max. Input Voltage	1,100 V
Max. Current per MPPT	22 A
Max. Short Circuit Current per MPPT	30 A
Start Voltage	200 V
MPPT Operating Voltage Range	200 V ~ 1,000 V
Rated Input Voltage	600 V
Number of Inputs	12
Number of MPP Trackers	6
Output	
Rated AC Active Power	50,000 W
Max. AC Apparent Power	55,000 VA
Max. AC Active Power ($\cos\phi=1$)	55,000 W
Rated Output Voltage	220 V / 230 V, default 3W + N + PE; 380 V / 400 V, 3W + PE
Rated AC Grid Frequency	50 Hz / 60 Hz
Rated Output Current	76 A @380 V / 72.2 A @400 V
Max. Output Current	83.6 A @380 V / 79.4 A @400 V
Adjustable Power Factor Range	0.8 leading... 0.8 lagging
Max. Total Harmonic Distortion	$\leq 3\%$
Protection	
Input-side Disconnection Device	Yes
Anti-islanding Protection	Yes
AC Overcurrent Protection	Yes
DC Reverse-polarity Protection	Yes
PV-array String Fault Monitoring	Yes
DC Surge Arrester	Type II
AC Surge Arrester	Type II
DC Insulation Resistance Detection	Yes
Residual Current Monitoring Unit	Yes
Communication	
Display	LED Indicators, Bluetooth + APP
RS485	Yes
USB	Yes
Monitoring BUS (MBUS)	Yes
General Data	
Dimensions (W x H x D)	1,075 x 555 x 300 mm (42.3 x 21.9 x 11.8 inch)
Weight (with mounting plate)	74 kg (163.1 lb.)
Operating Temperature Range	-25°C ~ 60°C (-13°F ~ 140°F)
Cooling Method	Natural Convection
Max. Operating Altitude	4,000 m (13,123 ft.)
Relative Humidity	0 ~ 100%
DC Connector	Amphenol Helios H4
AC Connector	Cable Gland + OT Terminal
Protection Degree	IP65
Topology	Transformerless
Standard Compliance (more available upon request)	
Certificate	EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 62910, IEC 60068, IEC 61683
Grid Code	IEC 61727, AS/NZS 4777.2

Smart Dongle



Smart

2G, 3G, 4G / WLAN communication ¹
Support 3rd-party monitoring system ²



Simple

Plug & Play



Reliable

IP65
Support auto reconnection

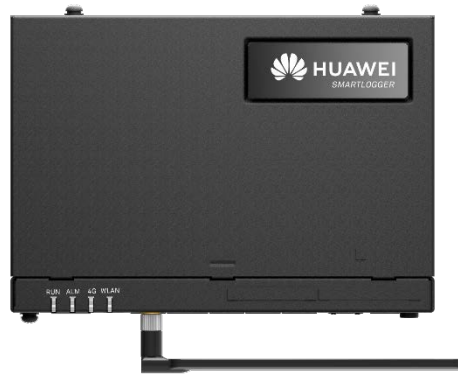
Technical Specification	Smart Dongle-WLAN	Smart Dongle-4G
General Data		
Connection interface	USB	
Installation	Plug-and-play	
Indicator	LED Indicator	
Dimensions (W * H * D)	130 x 48 x 33 mm (5.1 x 1.9 x 1.3 inch)	
Weight	90 g (0.2 lb.)	
Degree of protection	IP65	
Power consumption (typical)	2 W	3.5 W
Wireless Parameter		
Sim card type	/	mini-sim (15 mm*25 mm)
Supported standards & frequencies	802.11 b / g / n 2.4 GHz	4G: FDD-LTE / TDD-LTE 3G: WCDMA / HSDPA / HSUPA / HSPA+ 2G: GSM / GPRS / EDGE ³
Environment		
Operating temperature range	-30 °C to +65 °C (-22 °F to 149 °F)	
Relative humidity range	5 - 95% RH	
Storage temperature range	-40°C to +70°C (-40 °F to 158 °F)	
Max. operating altitude	4,000 m (13,123 ft.)	
Standard Compliance (more available upon request)		
Certificate	CE, RCM	RCM
Inverter Compatibility		
Inverter model	SUN2000-5/6KTL-M0 SUN2000-8/10/12/15/17/20KTL-M0	SUN2000-5/6KTL-M0 SUN2000-8/10/12/15/17/20KTL-M0 SUN2000-50KTL-M0

1: To ensure stable data transmission, Huawei suggests 4G dongle to be installed in areas with stable mobile signal (2G signal ≥ 4 bars, 3G/4G signal ≥ 3 bars).

2: 3rd-party management system shall match the communication protocol with Huawei Smart Dongle.

3: For recommended carriers list and details on supported frequencies, please contact local distributors.

SmartLogger 1000A



Smart

Smart zero export control design



Simple

2G / 3G / 4G communication¹



Reliable

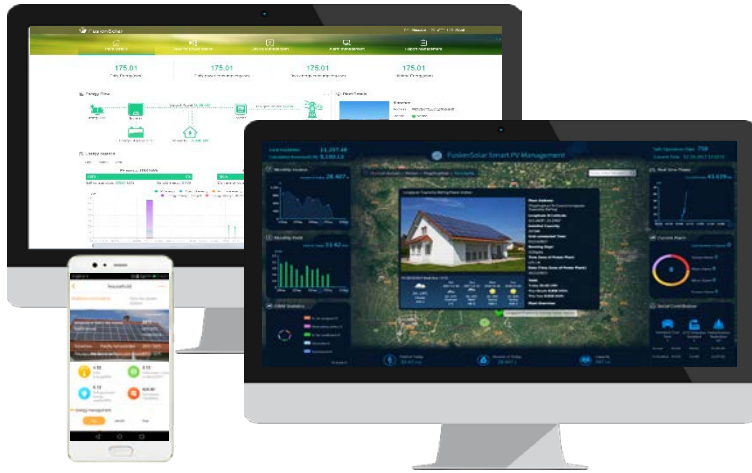
Safety improvement by SPD inside

Technical Specification	SmartLogger 1000A
Device Management	
Max. Number of Connected Devices	80
Communication Interface	
Electrical Ethernet	ETH x 1, 10 / 100 Mbps
RS485	COM x 3, 2400 / 4800 / 9600 / 19200 / 115200 bps, 1000 m
2G / 3G / 4G	LTE FDD, LTE TDD, WCDMA, GSM ²
Digital / Analog Input / Output	DI x 4, DO x 2, AI x 4
Active DO	12V, 100mA (connection with relay, sensor)
SPD Inside	Yes
Communication Protocol	
Ethernet	Modbus-TCP, IEC 60870-5-104
RS485	Modbus-RTU, IEC 60870-5-103 (standard), DL / T645
Interaction	
LED	LED Indicator x 4 – RUN, ALM, 4G, WLAN
WEB	Embedded Web
USB	USB 2.0 x 1
APP	Communication by WLAN
Environment	
Operating Temperature Range	-40°C ~ 60°C (-40°F ~ 140°F)
Storage Temperature	-40°C ~ 70°C (-40°F ~ 158°F)
Relative Humidity (Non-condensing)	5% ~ 95%
Max. Operating Altitude	4,000 m (13,123 ft.)
Electrical	
AC Power Supply	100 V ~ 240 V, 50 Hz / 60 Hz
DC Power Supply	20 ~ 30 V
Power Consumption	Typical 8 W, Max. 15 W
Mechanical	
Dimensions (W x H x D)	200 x 140 x 53 mm (7.9 x 5.5 x 2.1 inch, without mounting ears and antenna)
Weight	2 kg (4.4 lb.)
Protection Degree	IP20
Installation Options	Wall Mounting, DIN Rail Mounting, Tabletop Mounting

1: When putting inside metal box, extended antenna will be needed.

2: For recommended carriers list and details on supported frequencies, please contact local distributors.

FusionSolar Smart PV Management System



Simple & Swift

- Simple commissioning by APP
- Auto-detection of system equipment
- Registering your plant by scanning any device



Convenient & Reliable

- Energy flow illustration
- Real-time data at anytime from anywhere
- Performance data back-up



Improved O&M Experience

- Physical & logical module layout
- Module-level performance management*
- Smart I-V Diagnosis

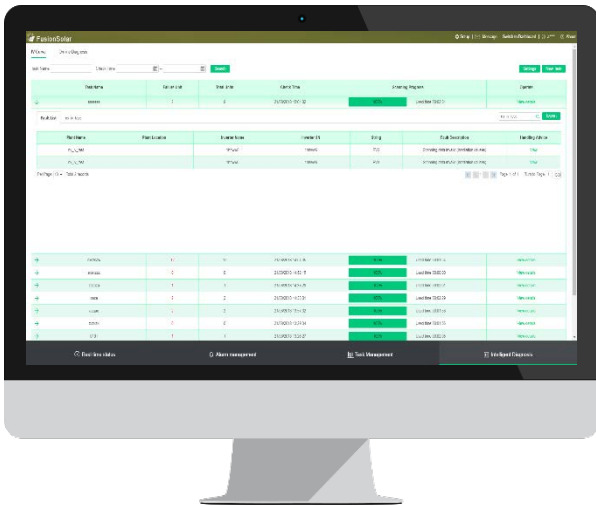
*Full optimizer solution with Smart PV Safety Box required

Feature List		WEB	APP
Basic Feature	Swift Installation & Registration	●	●
	Data Collection	●	
	Dashboard	●	●
	Energy Flow	●	●
	Energy Generation & Consumption	●	●
	Device Management	●	●
	Report Management	●	●
	Alarm Management	●	●
	System Configuration	●	
Advanced Feature	Intelligent O&M	○	
	Mobile O&M	○	○
	Proactive Diagnosis	○	○
	Smart I-V Curve Diagnosis	○	○

● Basic ○ Optional

Smart I-V Curve Diagnosis

Smart I-V Curve Diagnosis is able to carry out online I-V curve analysis on entire strings with advanced diagnosis algorithm. The scanning would help to find out and identify the strings with low performance or faults, which would help to achieve proactive maintenance, higher O&M efficiency and lower operation cost.



Smart

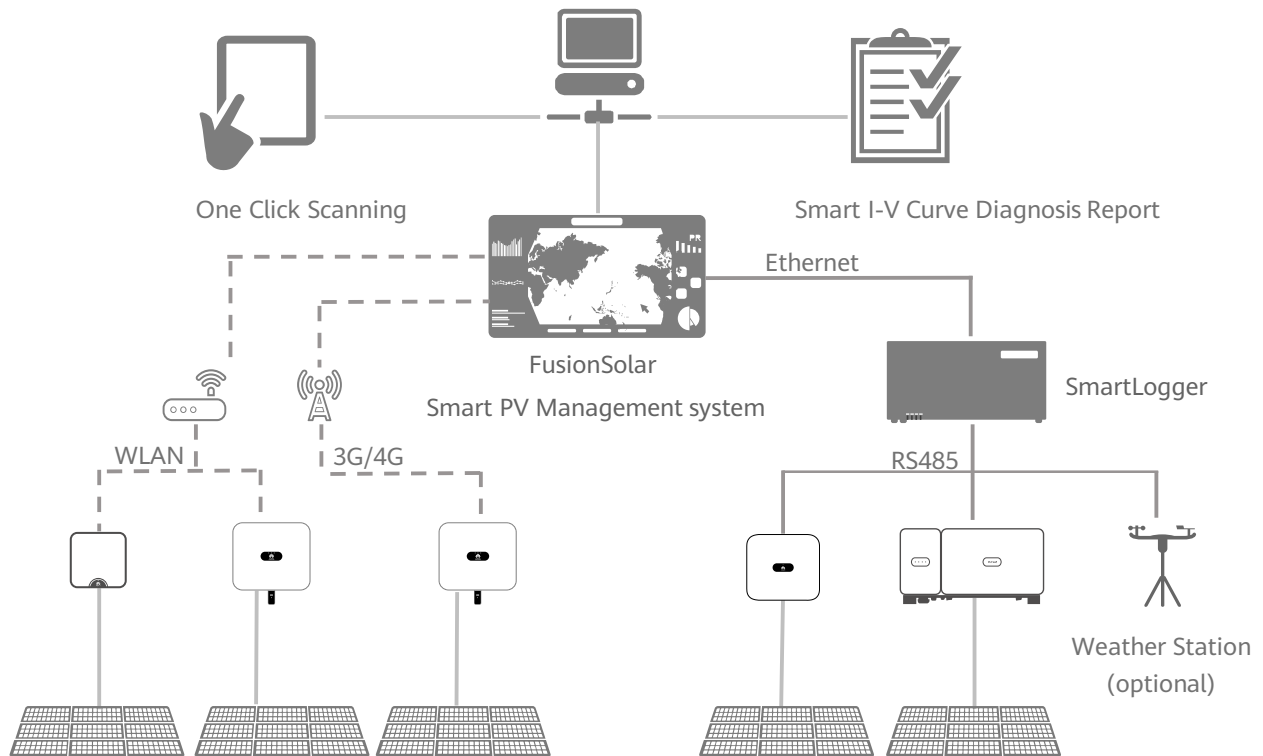
- Support plant-level, array-level and inverter-level analysis and diagnosis
- Automatically identify different failure types and provide recovery suggestion




Efficient

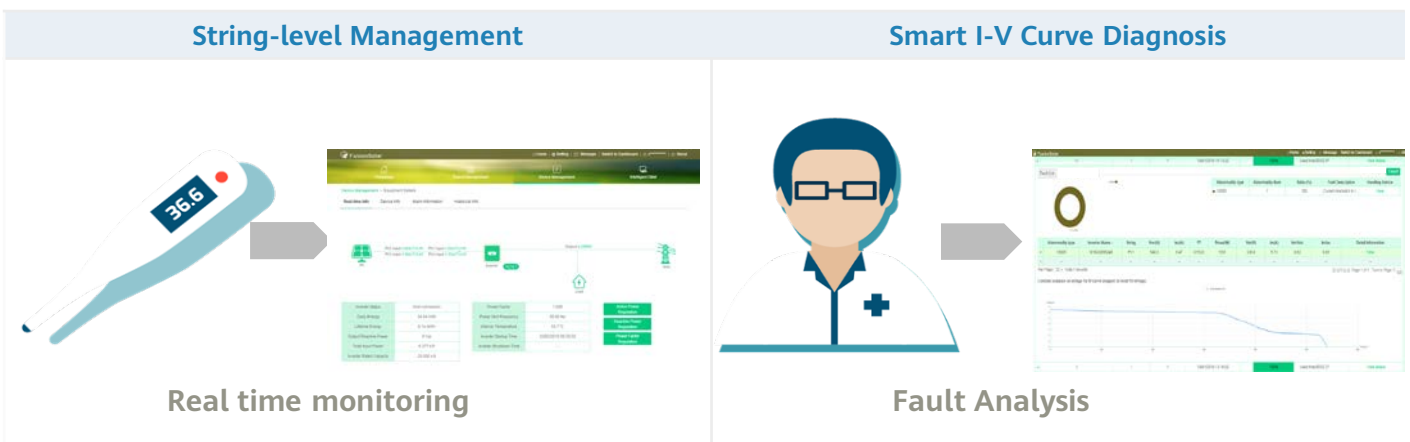
- One-click scanning without onsite experts or equipment
- Online I-V curve scanning on entire strings of 5 MW plant within 5min
- Automatic report generation of 5 MW plant within 15min

Network

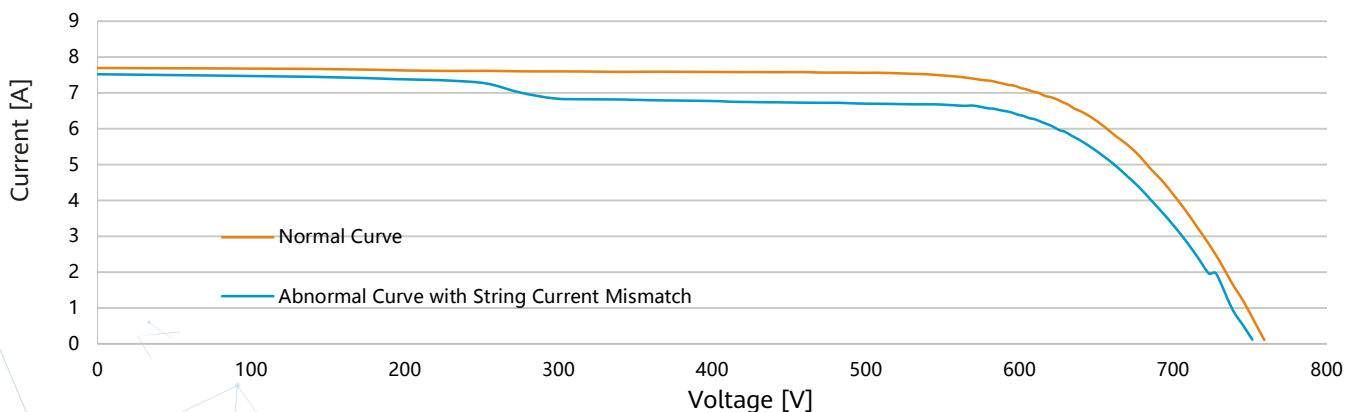
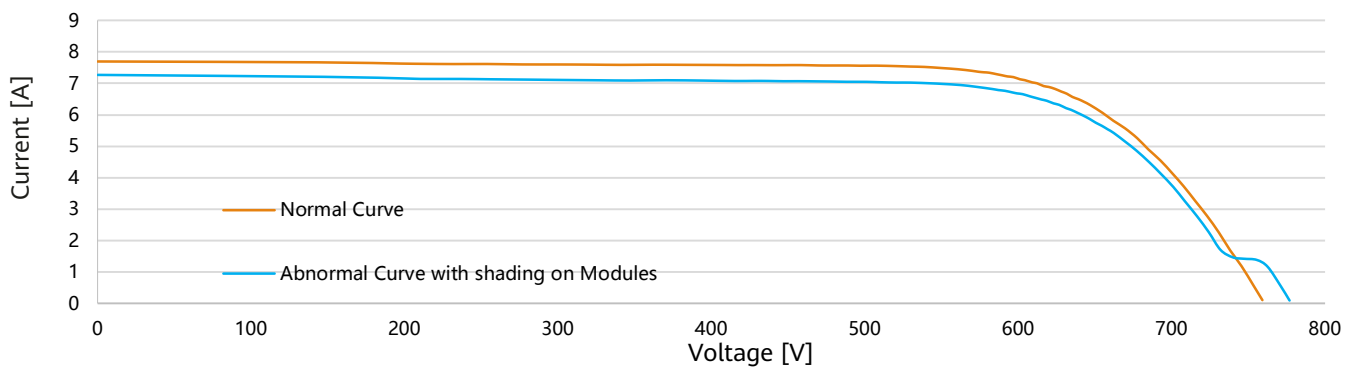


Technical Specifications	Smart I-V Curve Diagnosis
Smart PV Inverter*	SUN2000L-2/3/4/4.6/5KTL, SUN2000-5/6KTL-M0, SUN2000-8/10/12/15/17/20KTL-M0, SUN2000-29.9/36KTL, SUN2000-50KTL-M0
Communication	SmartLogger1000, SmartLogger2000, SmartLogger1000A, Smart Dongle
Management System	FusionSolar Smart PV Management System, NetEco1000s
Scanning Time	< 1s (1 string)
Sampling Points per I-V Curve	128
Certification	 TÜVRheinland® TUV

* I-V curve diagnosis is not supported when inverter is connected with power optimizer.



String I-V Curve Comparison





10kW

Residential Energy System in NSW, Australia

System Configuration

- 32 x 310Wp modules
- 2 x SUN2000L-5KTL
- WLAN Communication

COD
Jan, 2019

Retailer
JT Solar



5kW

Residential PV System in NSW, Australia

System Configuration

- 18 x 310Wp modules
- 1 x SUN2000L-5KTL
- WLAN Communication

COD
Jan, 2019

Retailer
JT Solar



15kW

Residential PV System in NSW, Australia

System Configuration

- 37 × 310Wp Longi modules, 12 x existed old modules
- 3 x SUN2000L-5KTL
- WLAN communication

COD
Feb, 2019

Retailer
JT Solar



33kW

Residential PV System in Hanadacho Chokushi, Japan

System Configuration

- 120 × 275Wp modules
- 8 × SUN2000L-4.125KTL-JP
- SmartACBox12in1

COD
April, 2018

Distributor
DMM.com



4kW

Residential PV System in Waregem, Belgium

System Configuration

- 18 × 295Wp modules
- 6 × 375W optimizers
- SUN2000L-4KTL, WLAN
- Smart PV safety box

COD
May, 2018

Distributor
Wattkraft



8kW

Residential Energy System in Sydney, Australia

System Configuration

- 36 × 270Wp modules
- 24 × 375W optimizers
- SUN2000L-3KTL & -5KTL
- LG Chem RESU10H Type R

COD
Dec, 2017

Distributor
ASC



1.12MW

Distributed PV System in Dandenong, Australia

System Configuration

- 4000 x Jinko 305Wp modules
- 34 x SUN2000-33KTL
- SmartLogger1000

COD
2019



550kWp

Commercial PV Project in NSW, Australia

System Configuration

- 1679 x 320Wp Jinko modules
- 17 x SUN2000-33KTL

COD
May, 2018

Distributor
Megawatt Power



1MWp

Distributed PV System in Kuala Lumpur , Malaysia

System Configuration

- SUN2000-36KTL

COD

Mar, 2016



2.8MWp

Distributed PV System in Singapore Changi Airport

System Configuration

- SUN2000-36KTL

COD



Dec, 2016



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