



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

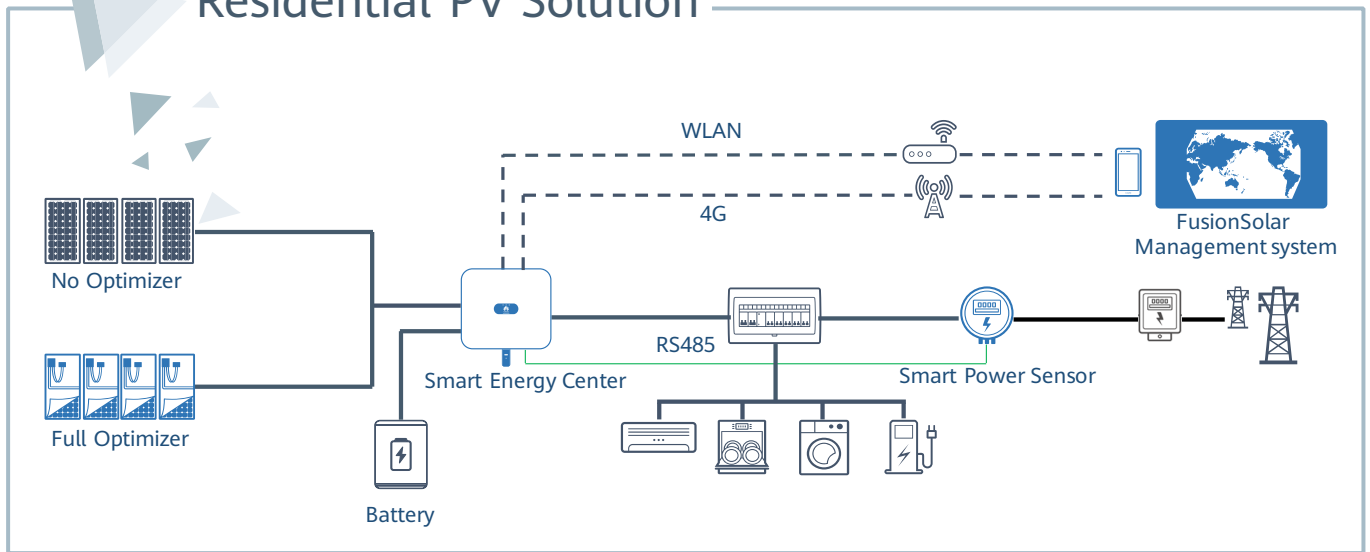
Fortune Global 500
61

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 optimizers 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

AI powered AFCI to proactively mitigate fire risk

Battery ready by direct plug & play, future proof





red dot award 2016
 winner



Higher Revenue

Max. efficiency 98.6%



Simple & Easy

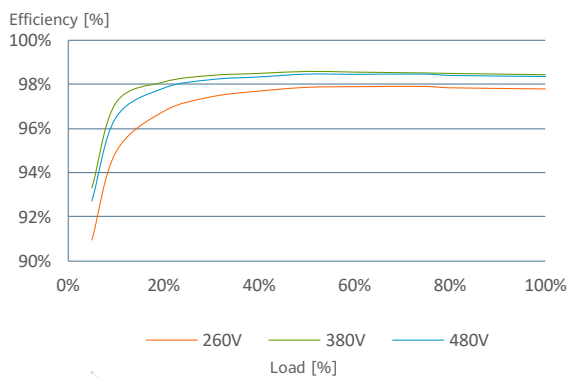
Optimized AC connector



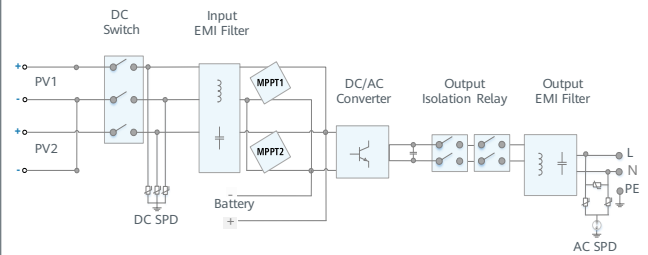
Safe & Reliable

DC & AC surge protection

Efficiency Curve



Circuit Diagram



SUN2000L-2/3/3.68/4/4.6/5KTL

SUN2000L-2/3/3.68/4/4.6/5KTL Technical Specification

Technical Specification	SUN2000L-2KTL	SUN2000L-3KTL	SUN2000L-3.68KTL ¹	SUN2000L-4KTL	SUN2000L-4.6KTL	SUN2000L-5KTL
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Efficiency

Max. efficiency	98.4 %	98.5 %	98.5 %	98.6 %	98.6 %	98.6 %
European weighted efficiency	97.0 %	97.6 %	97.8 %	97.9 %	98.0 %	98.0 %

Input

Recommended max. PV power	3,000 Wp	4,500 Wp	5,520 Wp	6,000 Wp	6,900 Wp	7,500 Wp
Max. input voltage	600 V / 495 V ²					
Operating voltage range ²	90 V ~ 600 V / 90 V ~ 495 V ²					
Start-up voltage	120 V					
Full power MPPT voltage range	120 V ~ 480 V	160 V ~ 480 V	190 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	3,680 W	4,000 W	4,600 W	5,000 W
Max. apparent power	2,200 VA	3,300 VA	3,680 VA	4,400 VA	5,000 VA ³	5,500 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	16 A	20 A	23 A	25 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 ⁴	Yes
AC surge protection ⁴	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, IEC62116
Grid connection standards	IEC61727, NB/T 32004-2013, G83/2, G59/3, EN 50438, CEI 0-21, VDE-AR-N-4105, AS 4777, C10/11, ABNT, UTE C15-712, RD 1699, NRS 097-2-1, DEWA 2016, MEA (Only 5KTL)

*1. Only available to Philippines.

*2. Only applicable for PV string. The maximum input voltage and operating voltage upper limit will be reduced to 495 V when inverter connects and works with LG battery.

*3. VDE-AR-N 4105:4600VA

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



Higher Revenue

Max. efficiency 98.6%



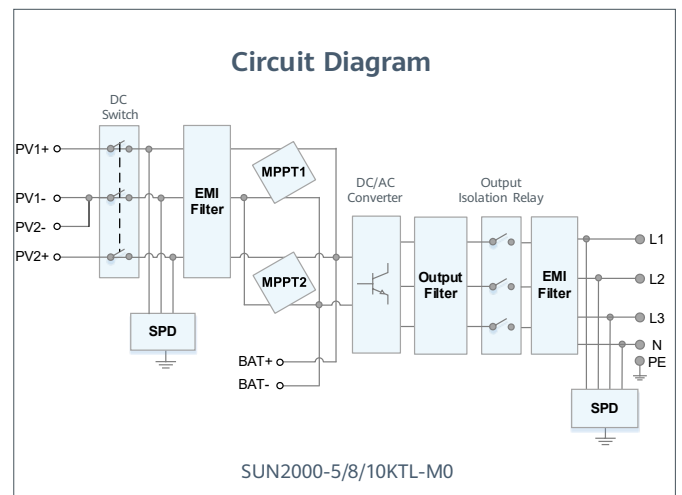
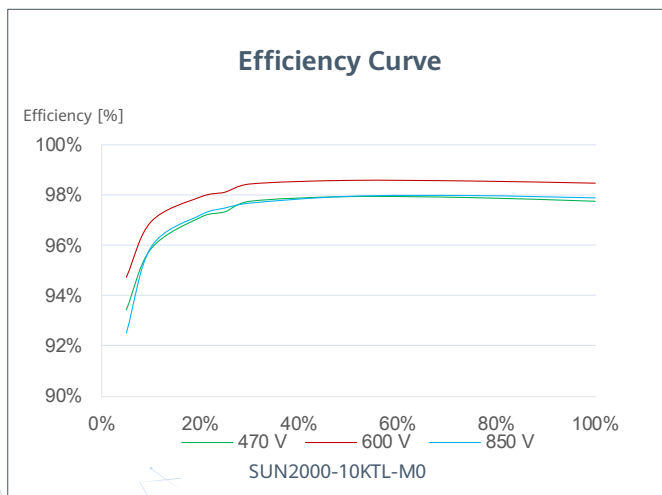
Simple & Easy

17 kg



Safe & Reliable

Arc fault protection



SUN2000-5/8/10KTL-M0
Technical Specification

Technical Specification	SUN2000-5KTL-M0	SUN2000-8KTL-M0	SUN2000-10KTL-M0
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Efficiency			
Max. efficiency	98.4%	98.6%	98.6%
European weighted efficiency	97.5%	98.0%	98.1%

Input			
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	380 V ~ 850 V	470 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	8,000 W	10,000 W
Max. apparent power	5,500 VA	8,800 VA	11,000 VA
Rated output voltage	220 Vac / 230 Vac, default 3W / N+PE ; 380 Vac / 400 Vac, 3W+PE		
Rated AC grid frequency	50 Hz / 60 Hz		
Max. output current	8.5 A	13.5 A	16.9 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
Ripple receiver control	Yes
Arc fault protection (AFCI)	Yes

General Data	
Operating temperature range	-25 ~ + 60 °C (-13 °F ~ 140 °F)
Relative operating humidity	0 %RH ~ 100 %RH
Operating altitude	0 - 4,000 m (13,123 ft.)
Cooling	Natural convection
Display	LED Indicators; Integrated WLAN + FusionSolar App
Communication	RS485; WLAN via Smart Dongle-WLAN; 4G / 3G / 2G via Smart Dongle-4G (Optional)
Weight (incl. mounting bracket)	17 kg (37.5 lb)
Dimension (incl. mounting bracket)	525 * 470 * 166 mm (20.7 * 18.5 * 6.5 inch)
Degree of protection	IP65

Standard Compliance (more available upon request)	
Safety	EN/IEC 62109-1, EN/IEC 62109-2, IEC62116
Grid connection standards	G98, G99, IEC61727, EN 50438, CEI 0-21, VDE-AR-N-4105, VDE-AR-N-4110, AS 4777, C10/11, ABNT, UTE C15-712, RD 1699, TOR D4, NRS 097-2-1, DEWA 2.0

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 Power Sensor



Accurate

Class 1 measurement accuracy



Simple & Easy

LCD display, easy to set and check

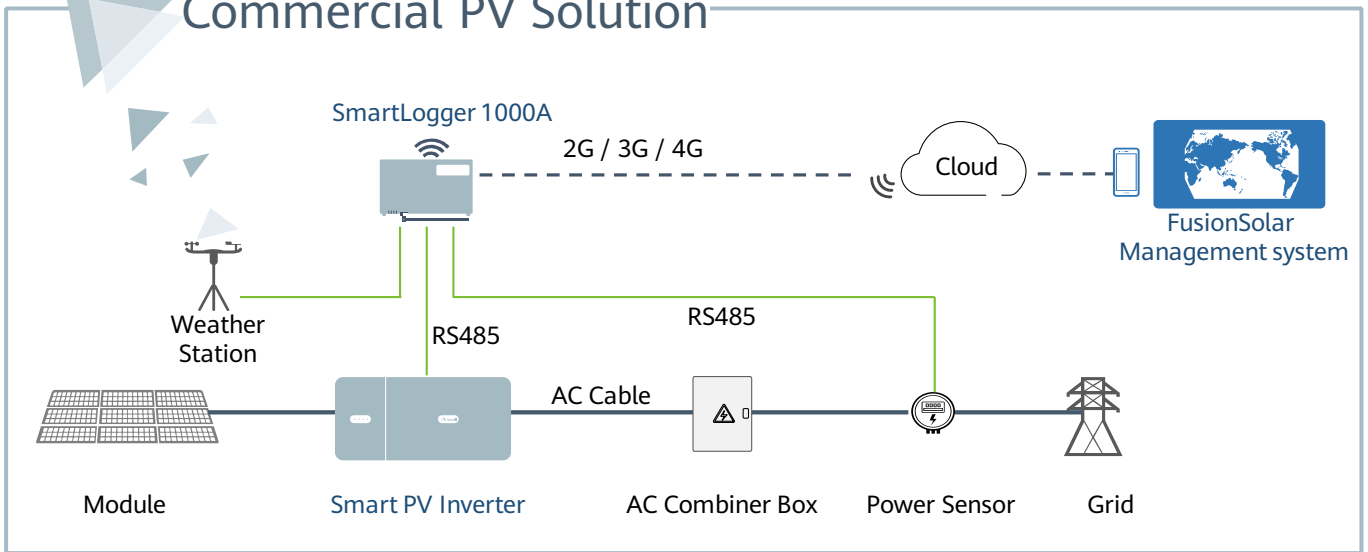


Energy Efficient

Overall power consumption ≤ 1 W

Technical Specification	DDSU666-H	DTSU666-H	DTSU666-H 250A
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)	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)	1.5 kg (3.3 lb)
Power Supply			
Power grid type	1P2W	3P4W	3P4W
Input voltage (phase voltage)		176 Vac ~ 288 Vac	
Power consumption	≤ 0.8 W	≤ 1 W	≤ 1 W
Measurement Range			
Line voltage	/	304 Vac ~ 499 Vac	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 100A / 40mA (5 m / 16.4 ft.)	3 CT 100A / 40mA (5 m / 16.4 ft.)	3 CT 250A / 50mA (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%



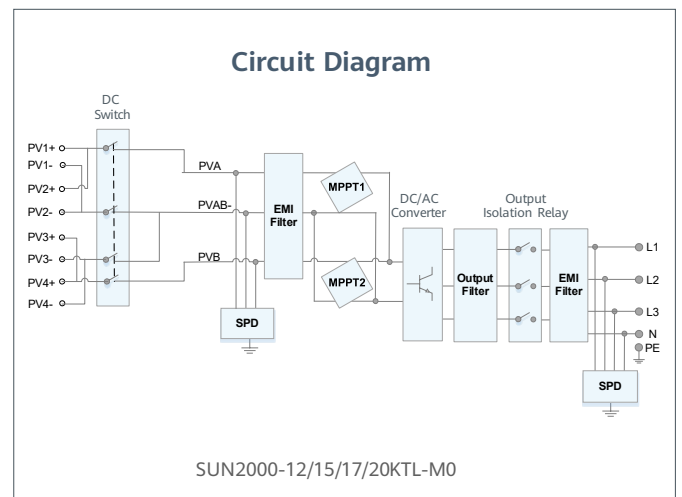
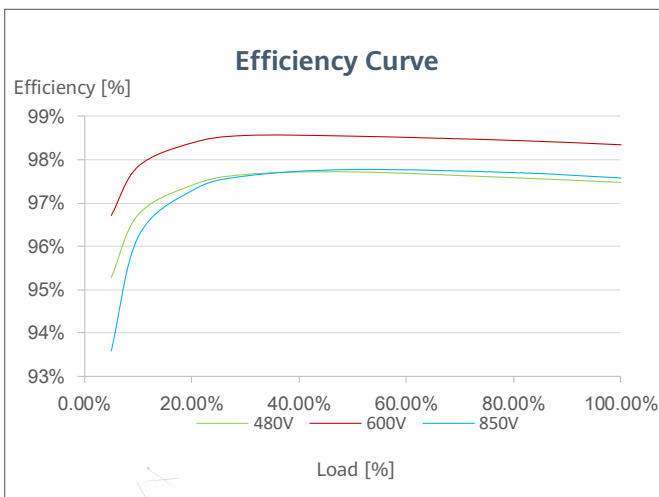
Simple & Easy

25 kg



Safe & Reliable

Arc fault protection



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

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

Input

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

Grid connection	Three phase			
Rated output power	12,000 W	15,000 W	17,000 W	20,000 W
Max. apparent power	13,200 VA	16,500 VA	18,700 VA	22,000 VA
Rated output voltage	220 Vac / 230 Vac , default 3W / N+PE ; 380 Vac / 400 Vac, 3W+PE			
Rated AC grid frequency	50 Hz / 60 Hz			
Max. output current	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 (with 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, IEC62116
Grid connection standards	G98, G99, IEC61727, EN 50438, CEI 0-21, VDE-AR-N-4105, VDE-AR-N-4110, AS 4777, C10/11, ABNT, UTE C15-712, RD 1699, TOR D4, NRS 097-2-1, DEWA 2.0

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

SUN2000-36KTL Smart String Inverter



Smart

8 strings intelligent monitoring



Efficient

Max. efficiency 98.6%



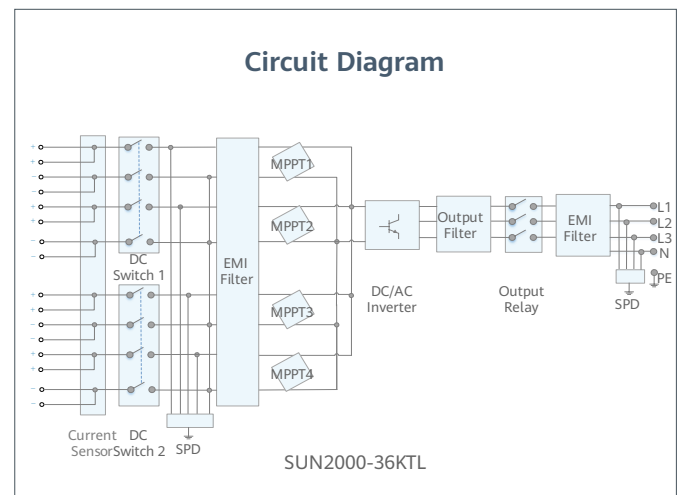
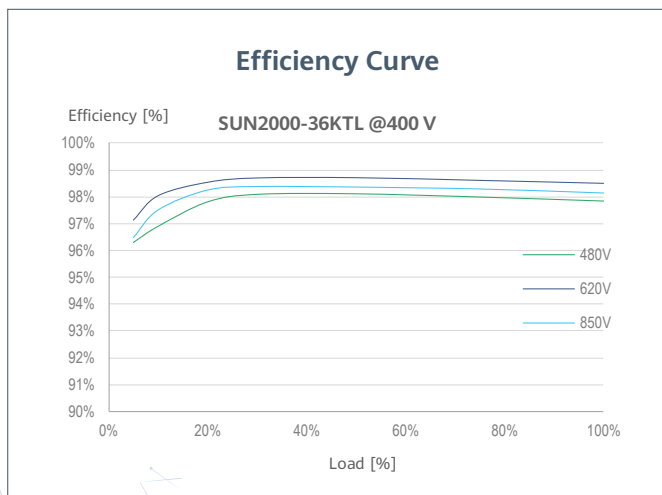
Safe

Fuse free design



Reliable

Type II surge arresters for DC & AC



Technical Specification	SUN2000-36KTL
Efficiency	
Max. Efficiency	98.8% @480 V, 98.6% @380 V / 400 V
European Efficiency	98.6% @480 V, 98.4% @380 V / 400 V
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 @380 V / 400 V, 720 V @480 V
Number of Inputs	8
Number of MPP Trackers	4
Output	
Rated AC Active Power	36,000 W
Max. AC Apparent Power	40,000 VA
Max. AC Active Power (cosφ=1)	40,000 W
Rated Output Voltage	220 V / 230 V, default 3W + N + PE; 380 V / 400 V / 480 V, 3W + PE
Rated AC Grid Frequency	50 Hz / 60 Hz
Rated Output Current	54.6 A @380 V, 52.2 A @400 V, 43.4 A @480 V
Max. Output Current	60.8 A @380 V, 57.8 A @400 V, 48.2 A @480 V
Adjustable Power Factor Range	0.8 LG ... 0.8 LD
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
Arc Fault Protection	Yes (Optional)
Communication	
Display	LED Indicators, 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)	
Safety	EN 62109-1/-2, IEC 62109-1/-2
Grid Connection Standards	IEC 61727, IEC 62116, EN 50530, IEC 60068, IEC 61683, AS/NZS 4777.2, G59/3, PEA, MEA, Philippine Resolution No.7, VDE 0126-1-1

SUN2000-60KTL-M0 Smart String Inverter



Smart

Smart I-V Curve Diagnosis supported



Efficient

Max. efficiency 98.7%



Safe

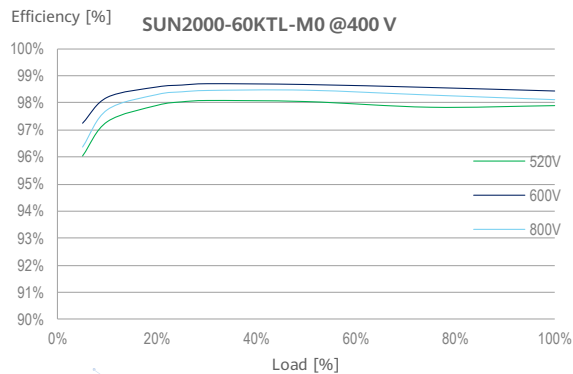
Fuse free design



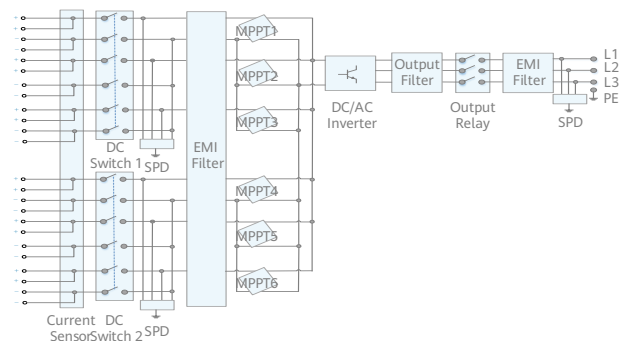
Reliable

Type II surge arresters for DC & AC

Efficiency Curve



Circuit Diagram



SUN2000-60KTL-M0

Technical Specification	SUN2000-60KTL-M0
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Efficiency	
Max. Efficiency	98.9% @480 V, 98.7% @380 V / 400 V
European Efficiency	98.7% @480 V, 98.5% @380 V / 400 V

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 @380 V / 400 V, 720 V @480 V
Number of Inputs	12
Number of MPP Trackers	6

Output	
Rated AC Active Power	60,000 W
Max. AC Apparent Power	66,000 VA
Max. AC Active Power (cosφ=1)	66,000 W
Rated Output Voltage	220 V / 230 V, default 3W + N + PE; 380 V / 400 V / 480 V, 3W + PE
Rated AC Grid Frequency	50 Hz / 60 Hz
Rated Output Current	91.2 A @380 V, 86.7 A @400 V, 72.2 A @480 V
Max. Output Current	100 A @380 V, 95.3 A @400 V, 79.4 A @480 V
Adjustable Power Factor Range	0.8 LG ... 0.8 LD
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, APP
RS485	Yes
USB	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)	
Safety	EN 62109-1/-2, IEC 62109-1/-2, IEC 62116
Grid Connection Standards	IEC 61727, EN 50530, IEC 62910, IEC 60068, IEC 61683, VDE 4105/0126, UTE C 15-712-1, EN 50438, CLC/TS 50549-1, CEI 0-16/21, C10/11, RD 1699, PO 12.9, Philippine Resolution No. 07, AS/NZS 4777.2, DEWA, NRS 097-2-1, IEEE 1547, ABNT, PEA, MEA, NB/T 32004-2013

Smart Dongle



Smart

Smart zero export control design
Support 3rd-party monitoring system ¹



Simple

Plug & Play



Reliable

IP65
Support auto reconnection

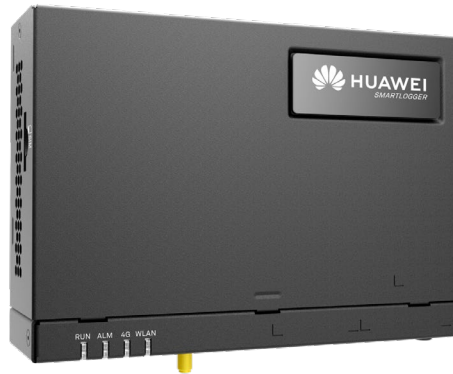
Technical Specification	Smart Dongle-WLAN	Smart Dongle-4G
General Data		
Connection interface	USB	
Installation	Plug-and-play	
Indicator	LED Indicator	
Dimensions (W * H * D)	130 x 48 x 33 mm (5.1 x 1.9 x 1.3 inch)	
Weight	90 g (0.2 lb.)	
Degree of protection	IP65	
Power consumption (typical)	2 W	3.5 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 ²
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	CE, Type Approval for Thailand, MIC
Inverter Compatibility		
Inverter model	SUN2000-3/4/5/6/8/10KTL-M0 SUN2000-12/15/17/20KTL-M0	SUN2000-3/4/5/6/8/10KTL-M0 SUN2000-12/15/17/20KTL-M0 SUN2000-60KTL-M0

^{*1:} 3rd-party management system shall match the communication protocol with Huawei Smart Dongle.

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

^{*3:} 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).

SmartLogger 1000A



Smart

Smart zero export control design



Simple

Including up to 80 inverters



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
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)
Interaction	
LED	LED Indicator x 4
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

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

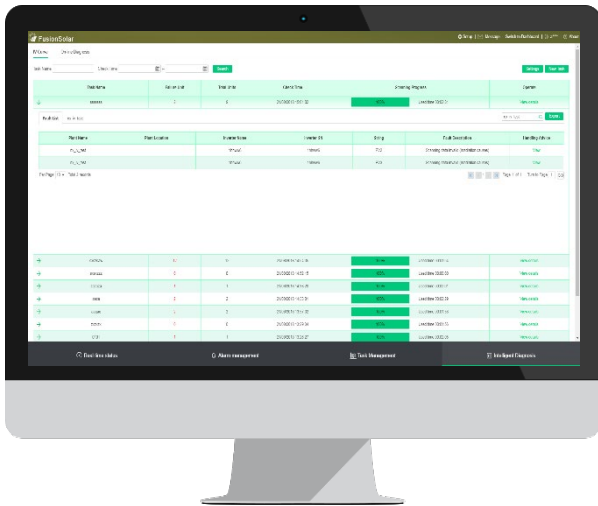
Feature List		WEB	APP
Basic Feature	Swift Installation & Registration	●	●
	Data Collection	●	
	Dashboard	●	●
	Energy Flow	●	●
	Energy Generation & Consumption	●	●
	Device Management	●	●
	Report Management	●	●
	Alarm Management	●	●
	System Configuration	●	
Advanced Feature	Intelligent O&M	○	
	Mobile O&M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

● Basic ○ Optional

* Only for residential scenario. Optimizer with Smart PV Safety Box required.

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

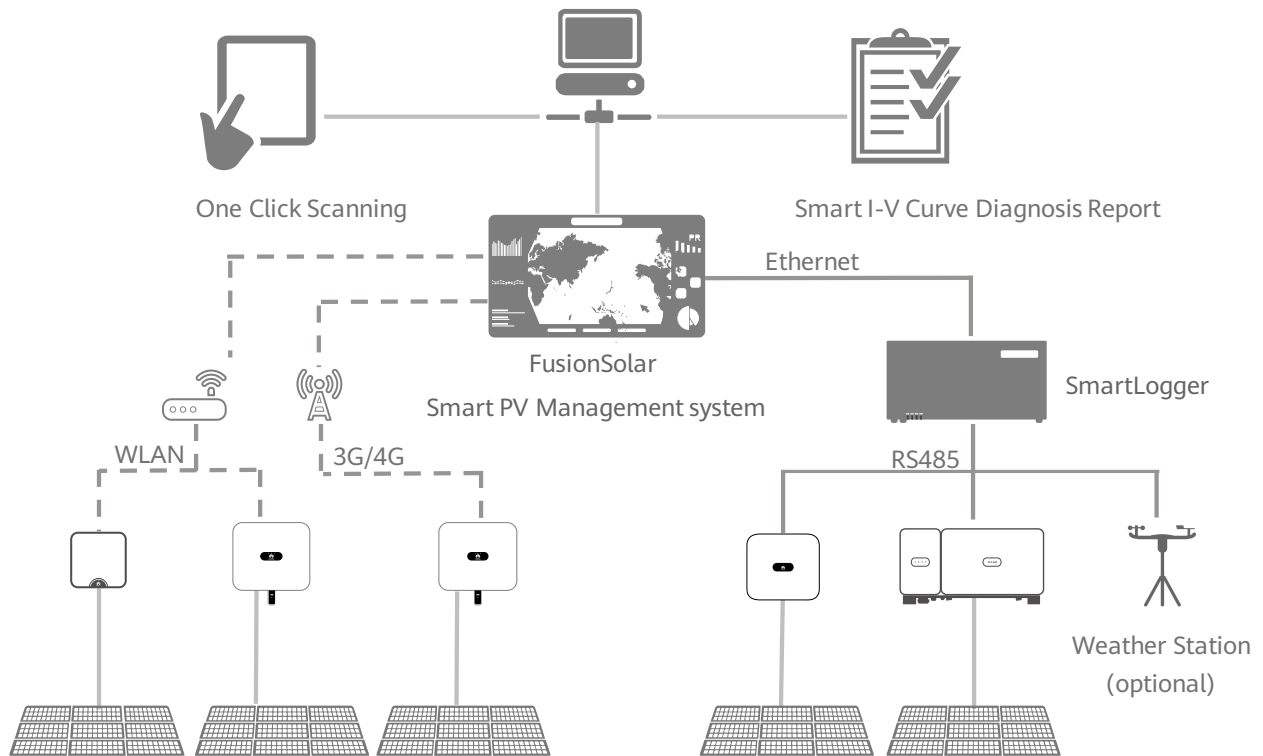
- Support plant-level, array-level and inverter-level analysis and diagnosis
- Automatically identify different failure types and provide recovery suggestion




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

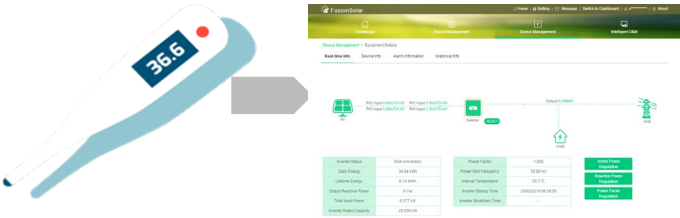


Smart I-V Curve Diagnosis

Technical Specifications	Smart I-V Curve Diagnosis
Smart PV Inverter*	SUN2000L-2/3/3.68/4/4.6/5KTL, SUN2000-3-10KTL-M0, SUN2000-12-20KTL-M0, SUN2000-36KTL, SUN2000-60KTL-M0
Communication	SmartLogger1000A, SmartLogger1000, Smart Dongle
Management System	FusionSolar Smart PV Management System
Scanning Time	< 1s (1 string)
Sampling Points per I-V Curve	128
Certification	 TÜV Rheinland® TÜV

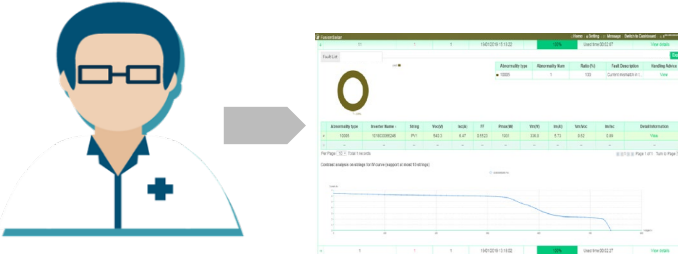
* I-V curve diagnosis is not supported when inverter is connected with power optimizer.

String-level Management



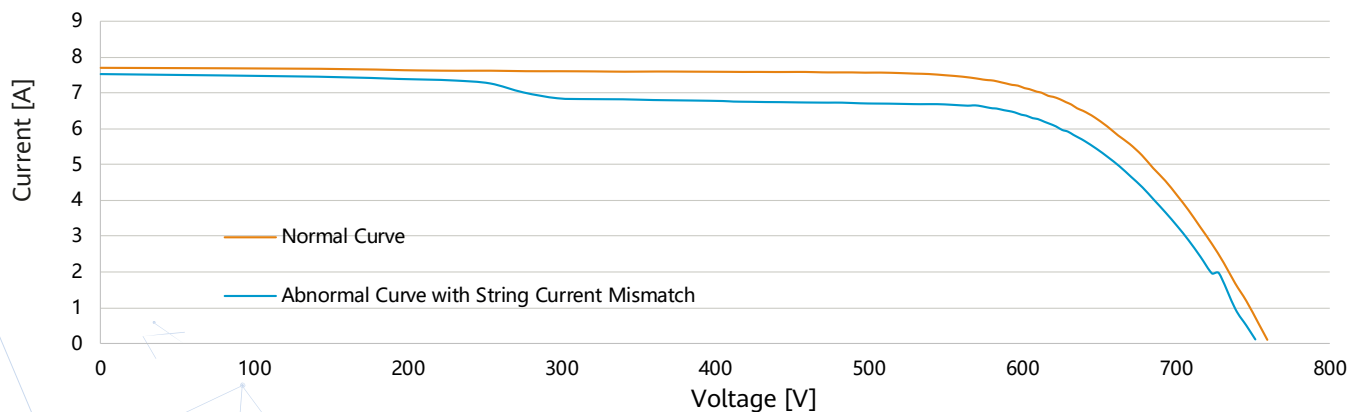
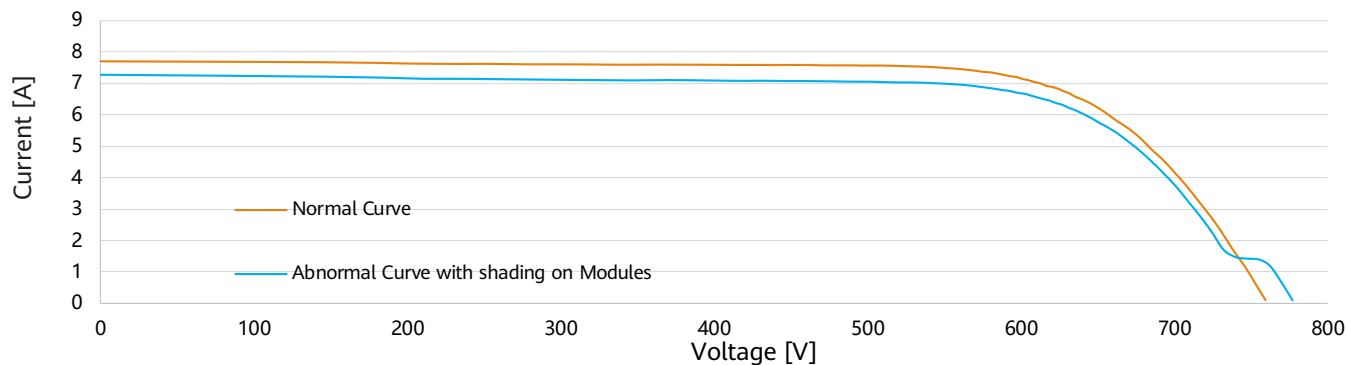
Real time monitoring

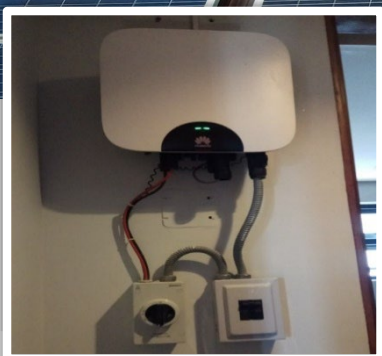
Smart I-V Curve Diagnosis



Fault Analysis

String I-V Curve Comparison





3kW

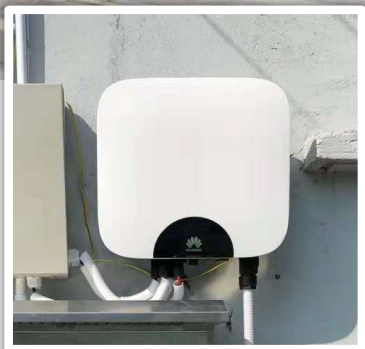
Residential PV System in Quezon City, Philippines

System Configuration

- SUN2000L-3KTL

COD

June, 2018



5kW

Residential PV System in Hong Kong, China

System Configuration

- SUN2000L-5KTL

COD

Nov, 2018



4kW

Residential PV System in Waregem, Belgium

System Configuration – Partial Optimizer

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

COD
May, 2018



4.6kW

Residential Energy System in Buedingen, Germany

System Configuration – Battery Ready

- 24 × Bosch 260Wp modules
- SUN2000L-4.6KTL
- LG Chem RESU 10H Type R

COD
April, 2018



2.8MWp

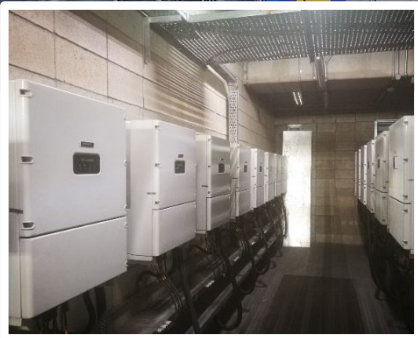
Distributed PV System in Changi Airport, Singapore

COD

Dec, 2016

System Configuration

- SUN2000-36KTL



1MWp

Distributed PV System in Kuala Lumpur, Malaysia

COD

Mar, 2016

System Configuration

- SUN2000-36KTL



1.2MWp

Distributed PV System in Robinson Chonburi, Thailand

System Configuration

- SUN2000-36KTL

COD
May, 2018



830kWp

Distributed PV System in Singapore

System Configuration

- SUN2000-60KTL

COD
Nov, 2018