

01 Product Portfolio

02 Single Phase Residential Application

03 Three Phase Residential Application

FusionSolar Smart PV Residential Inverter Portfolio



SUN2000-2/3/3.68/4/4.6/5/6KTL-L1
(Single phase inverter)

MPPT/Inputs: 2/2

Local commissioning: Built-in WLAN

Communication:

- Built-in WLAN (Standard)
- Smart Dongle-WLAN-FE (Optional)
- Smart Dongle-4G (Optional)

AFCI: Yes

Compatible Optimizer: SUN2000-450W-P

* Test result shows nominal DC voltage of SUN20002-6KTL-L1 inverter does not induce significant PID of connected PV module.



SUN2000-3/4/5/6/8/10KTL-M1
(Three phase inverter)

MPPT/Inputs: 2/2

Local commissioning: Built-in WLAN

Communication:

- Smart Dongle-WLAN-FE (Standard)
- Smart Dongle-4G (Optional)

AFCI: Yes

PID Recovery: Yes

Ripple Control Interface: Yes

Compatible Optimizer: SUN2000-450W-P

Optimizer and Smart Power Sensor



Smart PV Optimizer
SUN2000-450W-P

- DC MBUS communication to Inverter
- Maximum power harvesting from each module
- Module-level monitoring
- Open circuit impedance **1K** Ohms for installation verification
- Reduces PV wires to a safe voltage when inverter is shut down (Compliant to NEC2017)

Compatible to SUN2000-2-6KTL-L1, SUN2000-3-10KTL-M1 inverter



Smart Power Sensor
DDSU666-H (Single Phase)
DTSU666-H 250A/50mA (Three Phase)

- RS485 connected to inverter
- Class 1 high accuracy meter readings for production/consumption monitoring
- Import/export meter readings for export limitation functionality
- Current transformer included

External Communication Modules



Smart Dongle-WLAN-FE

- Max **10** device communication connected
- Plug & play USB interface connected to inverter for monitoring through WLAN or fast Ethernet

Compatible to SUN2000-2-6KTL-L1, SUN2000-3-10KTL-M1 inverter



Smart Dongle-4G

- Max **10** device communication connected
- Plug & play USB interface connected to inverter for monitoring through 4G

Compatible to SUN2000-2-6KTL-L1, SUN2000-3-10KTL-M1 inverter

FusionSolar APP & Smart PV Management System



FusionSolar

FusionSolar APP

- Support local system commissioning and plant registration on management system
- Auto-detection of system equipment
- Registering plant by scanning any equipment in the system



FusionSolar Smart PV Management System

- Unified address
<https://intl.fusionsolar.huawei.com>
- Real-time energy flow and energy balance
- Module-level performance management
- Demo site for all guests to experience system

SUN2000 APP & 3rd Party Management System



SUN2000

SUN2000 APP

- Local commissioning APP
- Support WLAN connection



3rd Party Management system

- Data can be transferred to 3rd party server via API

01 Product Portfolio

02 Single Phase
Residential Application

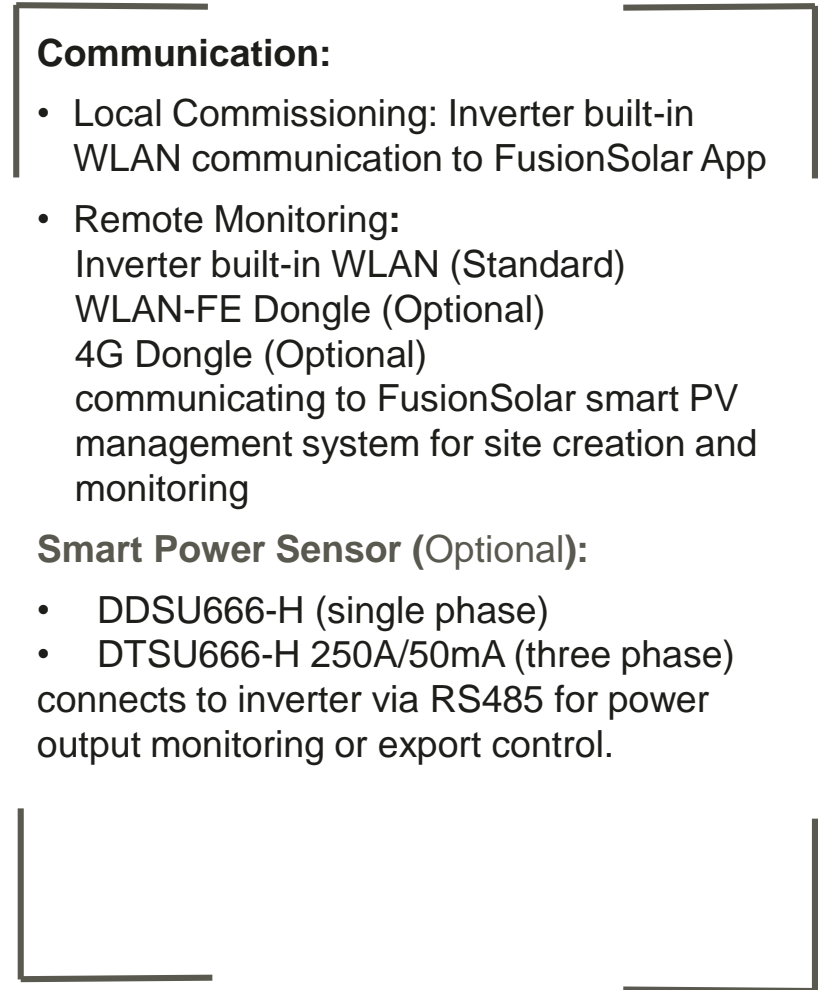
03 Three Phase
Residential Application

Residential Single Phase Solution

SUN2000-2/3/3.68/4/4.6/5/6KTL-L1

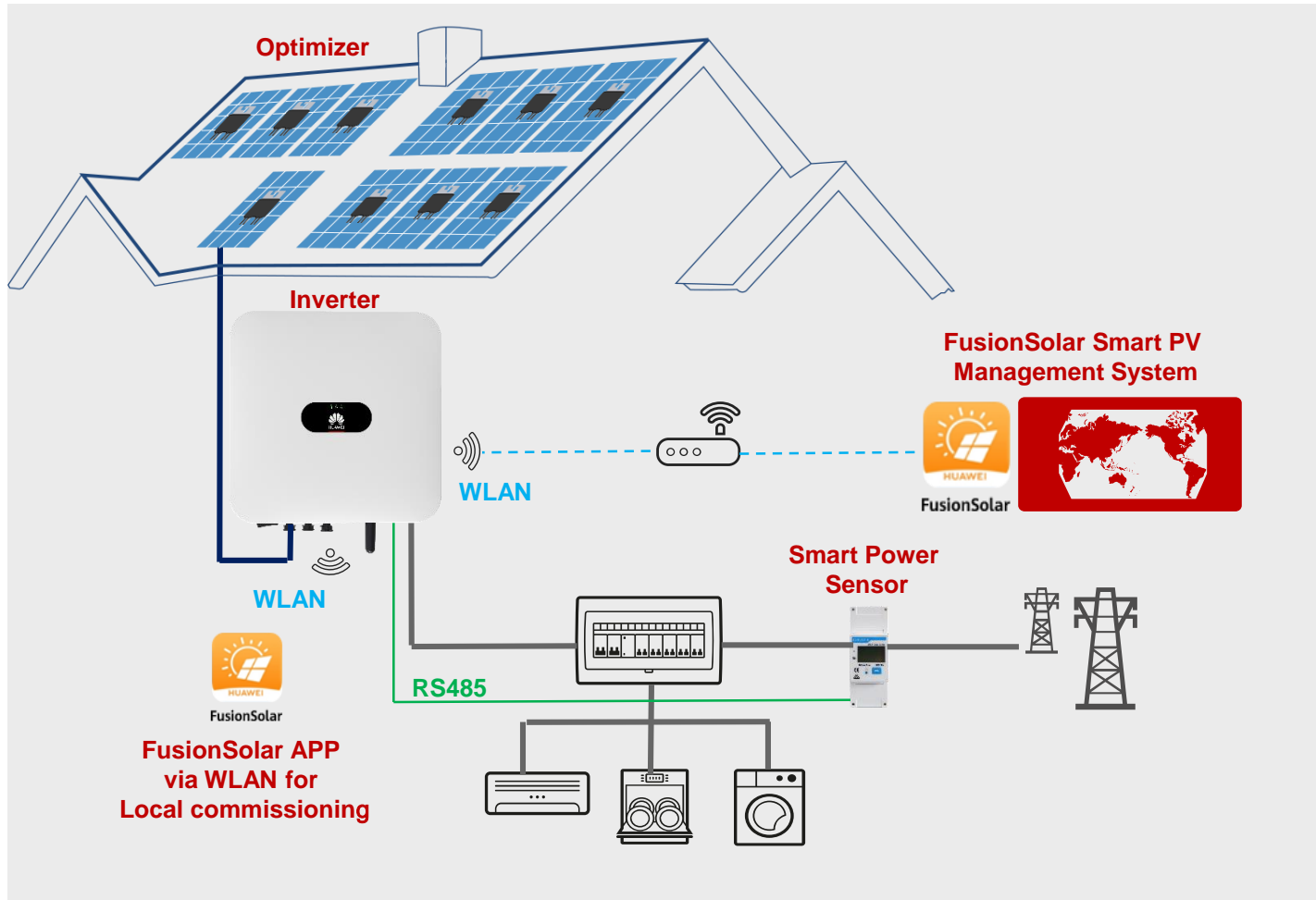
Compatible Optimizer	Inverter	Smart Power Sensor	Battery	Backup Power Supply	Communication	Management System	AFCI
SUN2000-450W-P	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1	<ul style="list-style-type: none">• DDSU666-H (Single Phase)• DTSU666-H 250A/50mA(Three Phase)	<ul style="list-style-type: none">• LG Chem RESU7H/10H• HUAWEI ESS PowerMate	Yes	<ul style="list-style-type: none">• Local commissioning: Inverter built-in WLAN;• Standard WLAN communication: Inverter built-in WLAN;• Optional Ethernet Communication: smart smart dongle-WLAN-FE; FE;• Optional 4G communication: smart dongle-4G;	FusionSolar	Yes

SUN2000-2/3/3.68/4/4.6/5/6KTL-L1



Residential Single Phase Inverter with Optimizer

SUN2000-2/3/3.68/4/4.6/5/6KTL-L1



Optimizer:

SUN2000-450W-P optimizers are attached to all modules

Support long string design, each string power is up to 5KW.

Communication:

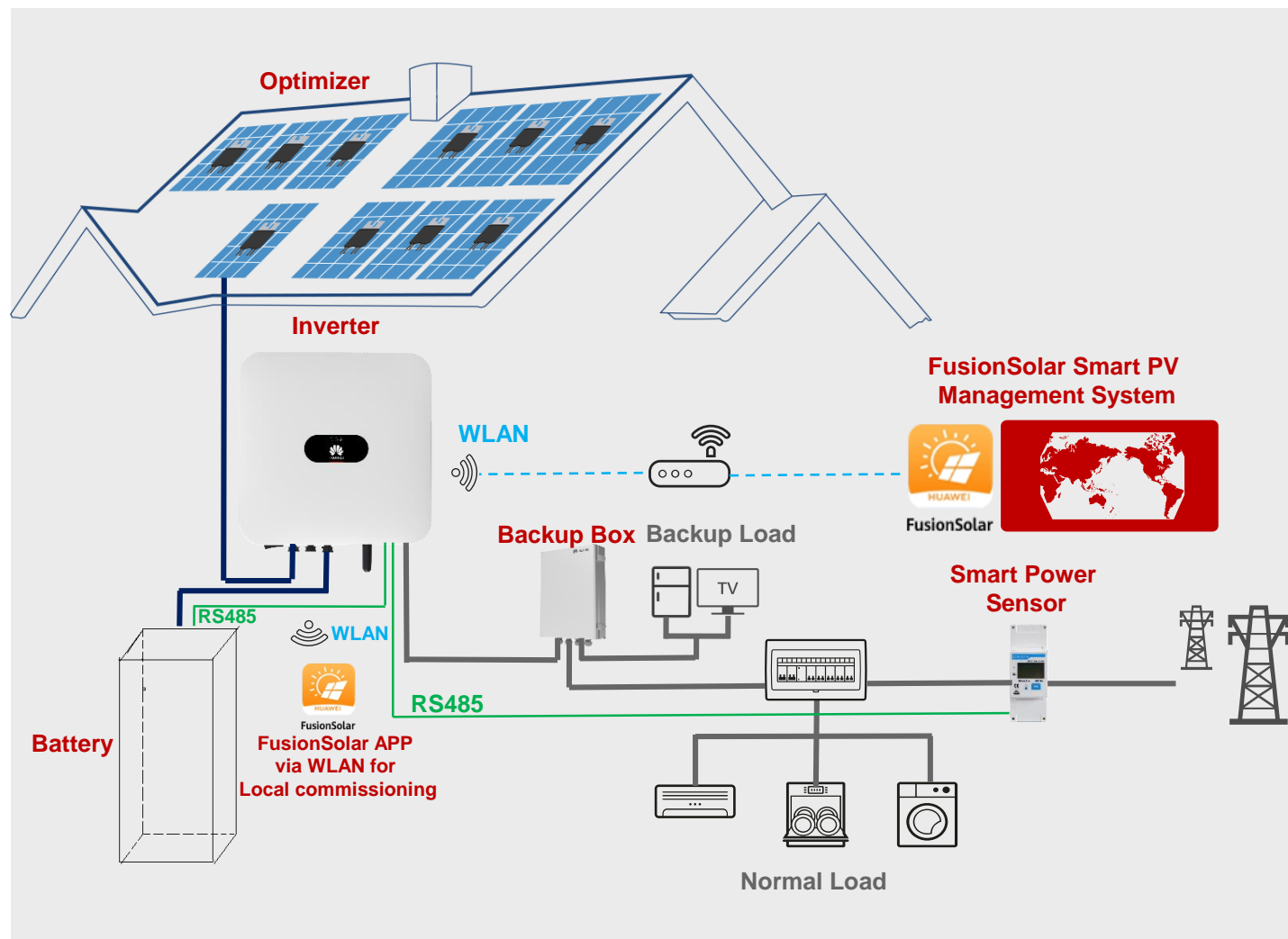
- Local Commissioning: Inverter built-in WLAN communication to FusionSolar
- Remote Monitoring:
 - Inverter built-in WLAN (Standard)
 - WLAN-FE Dongle (Optional)
 - 4G Dongle (Optional)communicating to FusionSolar smart PV management system for site creation and monitoring

Smart Power Sensor (Optional):

- DDSU666-H (single phase)
 - DTSU666-H 250A/50mA (three phase)
- connects to inverter via RS485 for power output monitoring or export control.

Residential Single Phase Inverter with Backup Power Supply

SUN2000-2/3/3.68/4/4.6/5/6KTL-L1



Communication:

- Local Commissioning: Inverter built-in WLAN communication to FusionSolar App
- Remote Monitoring: Inverter built-in WLAN (Standard) WLAN-FE Dongle (Optional) 4G Dongle (Optional) communicating to FusionSolar smart PV management system for site creation and monitoring

Compatible Battery:

HUAWEI ESS PowerMate

LG Chem RESU7H/10H

- High voltage DC coupled battery plug & play integration to inverter. Battery is managed by inverter via RS485 communication.
- Support reverse battery charging from grid;
- Fix charge/discharge, self-consumption maximization & time of use control mode can be selected

Backup Power Supply (Not available to SUN2000L-2-5KTL):

Inverter automatically supplies power to backed-up loads in the event of grid outages

Smart Power Sensor (necessary with battery installed):

- DDSU666-H (single phase)
 - DTSU666-H 250A/50mA (three phase)
- connects to inverter via RS485 for power output monitoring or export control.

01 Product Portfolio

02 Single Phase
Residential Application

03 Three Phase
Residential Application

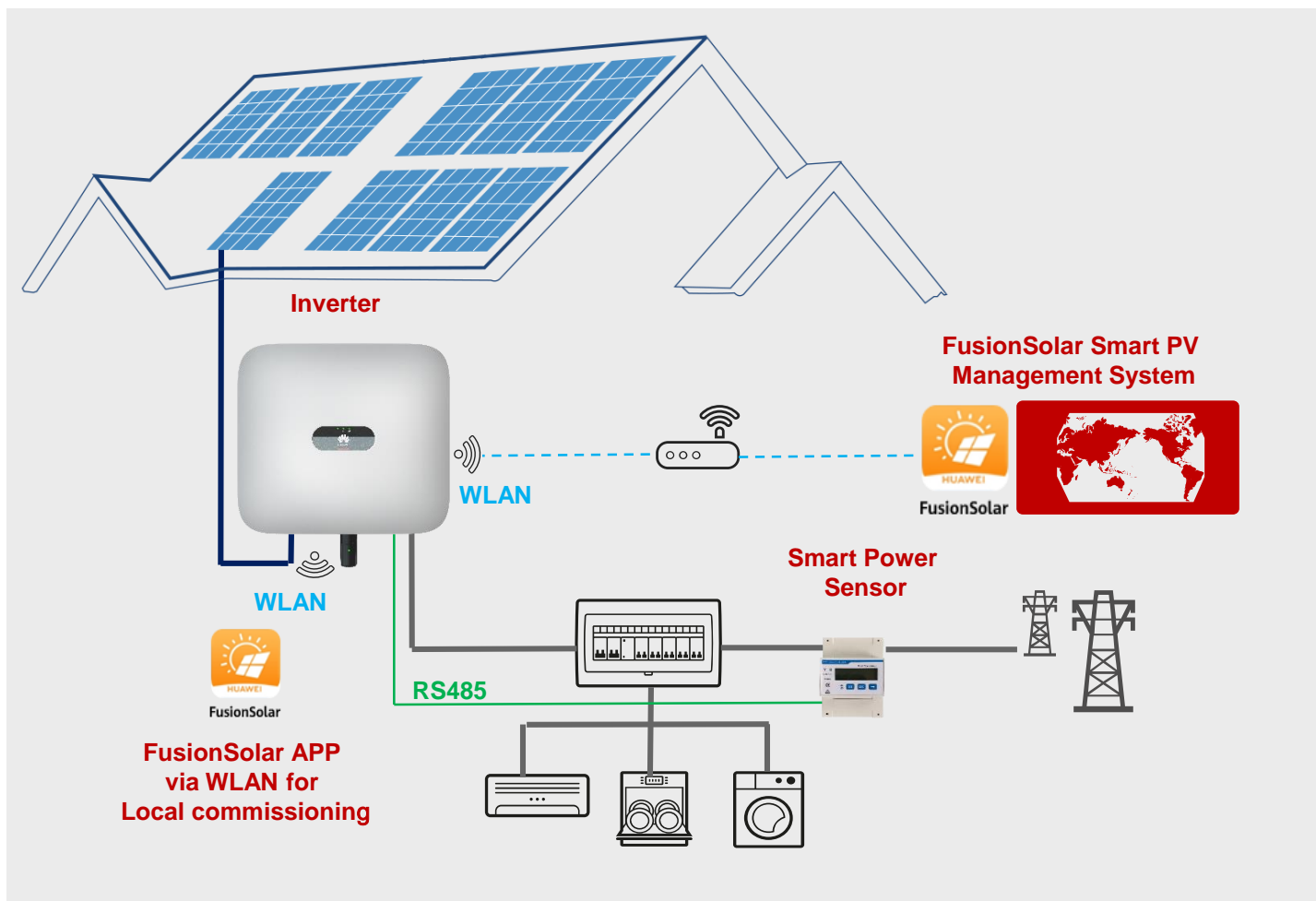
Residential Three Phase Solution

SUN2000-3/4/5/6/8/10KTL-M1

Compatible Optimizer	Inverter	Smart Power Sensor	Battery	Backup Power Supply	Communication	Management System	AFCI	PID Recovery	Ripple Control
SUN2000-450W-P	SUN2000-3/4/5/6/8/10KTL-M1	DTSU666-H 250A/50mA (Three Phase)	HUAWEI ESS PowerMate	Yes	<ul style="list-style-type: none">• Local commissioning: Inverter built-in WLAN for commissioning;• Standard WLAN or or Ethernet communication: smart dongle-WLAN-FE• Optional 4G communication: smart dongle-4G	FusionSolar	Yes	Yes	Yes

Residential Three Phase Inverter Without Optimizer

SUN2000-3/4/5/6/8/10KTL-M1



Communication:

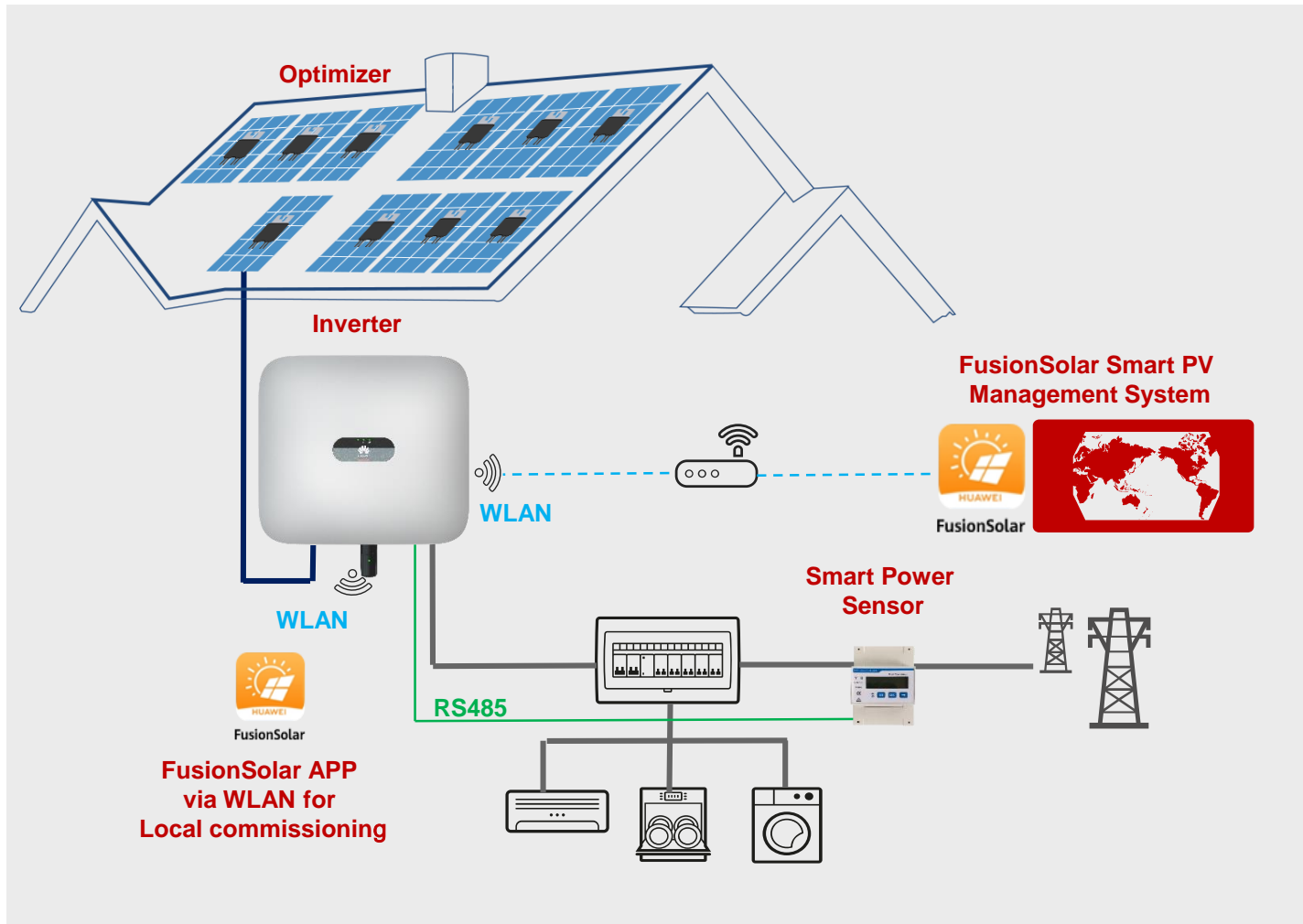
- Local Commissioning: Inverter built-in WLAN communication to FusionSolar App
- Remote Monitoring: WLAN-FE Dongle(Standard) 4G Dongle (Optional) communicating to FusionSolar smart PV management system for site creation and monitoring

Smart Power Sensor (Optional):

- DTSU666-H 250A/50mA (three phase) connects to inverter via RS485 for power output monitoring or export control.

Residential Three Phase Inverter with Optimizer

SUN2000-3/4/5/6/8/10KTL-M1



Optimizer:

SUN2000-450W-P Optimize attached to all modules.

Support long string design, each string power is up to 10KW.

Communication:

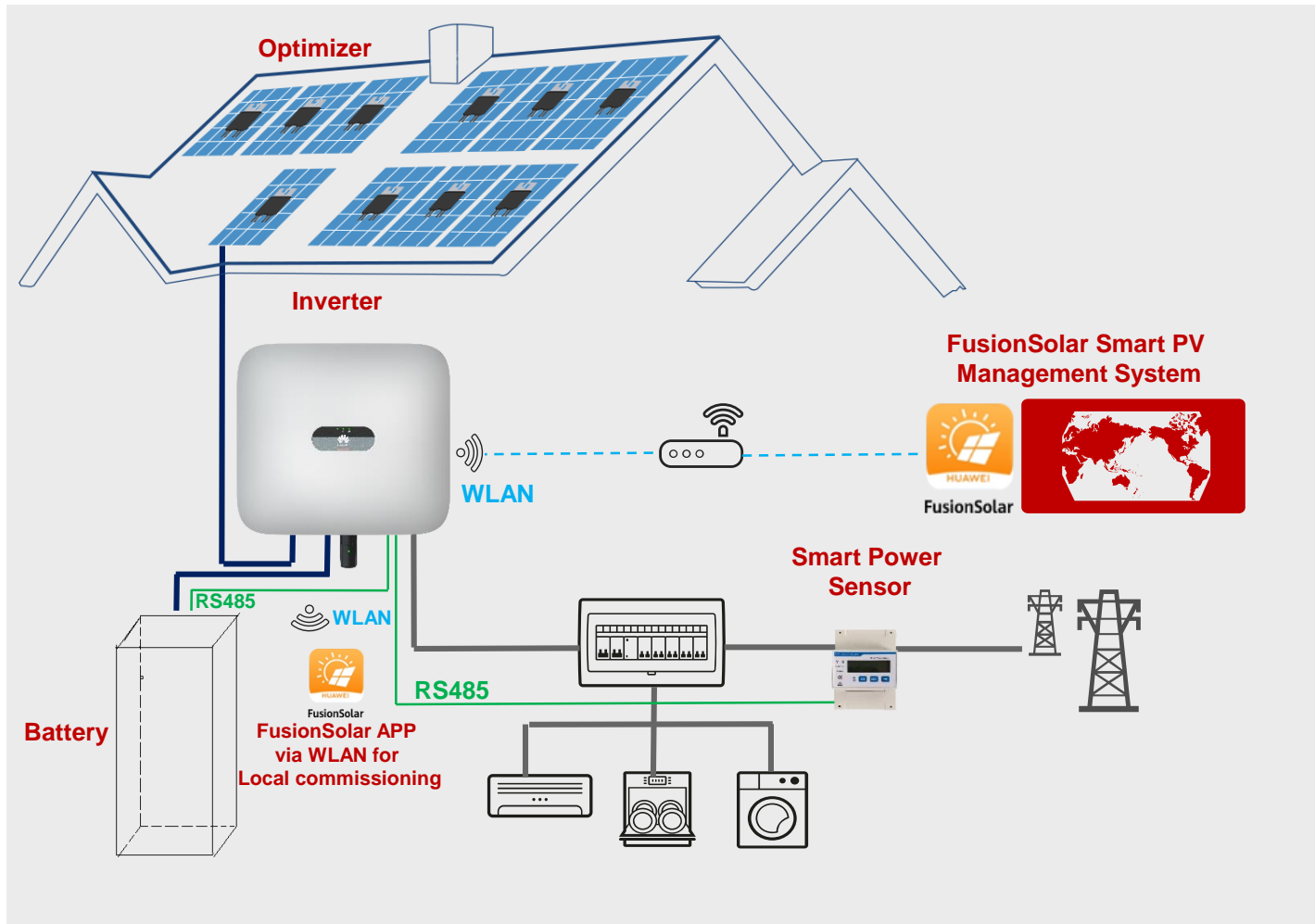
- Local Commissioning: Inverter built-in WLAN communication to FusionSolar
- Remote Monitoring: WLAN-FE Dongle (Standard) 4G Dongle (Optional) communicating to FusionSolar smart PV management system for site creation and monitoring

Smart Power Sensor (Optional):

- DTSU666-H 250A/50mA (three phase) connects to inverter via RS485 for power output monitoring or export control.

Residential Three Phase Inverter with Battery Storage

SUN2000-3/4/5/6/8/10KTL-M1



Communication:

- Local Commissioning: Inverter built-in WLAN communication to FusionSolar App
- Remote Monitoring:
 - WLAN-FE Dongle (Standard)
 - 4G Dongle (Optional)communicating to FusionSolar smart PV management system for site creation and monitoring

Compatible Battery:

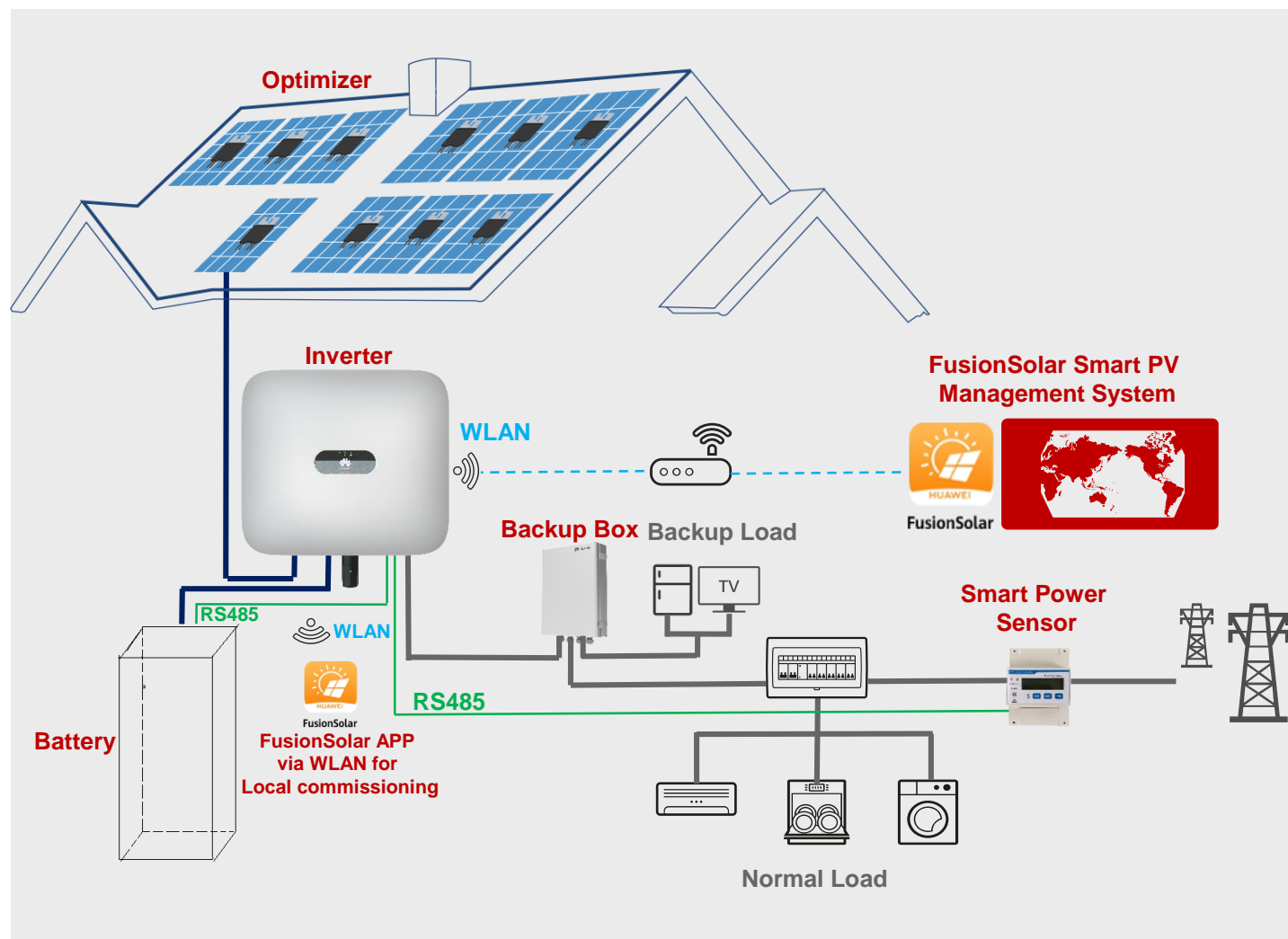
- HUAWEI ESS PowerMate
 - High voltage DC coupled battery plug & play integration to inverter. Battery is managed by inverter via RS485 communication.
- Fix charge/discharge, self-consumption maximization & time of use control mode can be selected

Smart Power Sensor (necessary with battery installed):

- DTSU666-H 250A/50mA (three phase) connects to inverter via RS485 for power output monitoring or export control.

Residential Three Phase Inverter with Backup Power Supply

SUN2000-3/4/5/6/8/10KTL-M1



Communication:

- Local Commissioning: Inverter built-in WLAN communication to FusionSolar App
- Remote Monitoring:
 - WLAN-FE Dongle (Standard)
 - 4G Dongle (Optional)communicating to FusionSolar smart PV management system for site creation and monitoring

Compatible Battery:

- HUAWEI ESS PowerMate
- High voltage DC coupled battery plug & play integration to inverter. Battery is managed by inverter via RS485 communication.

Fix charge/discharge, self-consumption maximization & time of use control mode can be selected

Backup Power Supply (Not available to SUN2000-3-10KTL-M0):

- Only support one phase backup load Inverter,
- Automatically supplies power to backed-up loads in the event of grid outages

Smart Power Sensor (necessary with battery installed):

- DTSU666-H 250A/50mA (three phase) connects to inverter via RS485 for power output monitoring or export control.

Residential Full Product Portfolio & Main Feature Difference Matrix



Main Feature Difference	SUN2000L-2-5KTL	SUN2000-2-5KTL-L0	SUN2000-2-6KTL-L1	SUN2000-3-10KTL-M0	SUN2000-3-10KTL-M1
MPPT/Inputs	2/2	2/2	2/2	2/2	2/2
Compatible with Huawei new optimizer SUN2000-450W-P			✓		✓
Inverter built-in AFCI			✓	✓	✓
Module-level arc fault circuit interrupter (AFCI)			✓		✓
Support smart dongle-WLAN-FE			✓	✓	✓
Support smart dongle-4G		✓	✓	✓	✓
Integrated PID recovery					✓
Ripple Control Interface				✓	✓
Battery interface	✓		✓	✓	✓
Backup Support			✓		✓

Thank you.

把数字世界带入每个人、每个家庭、
每个组织，构建万物互联的智能世界。

Bring digital to every person, home and
organization for a fully connected,
intelligent world.

**Copyright©2018 Huawei Technologies Co., Ltd.
All Rights Reserved.**

The information in this document may contain predictive statements including, without limitation, statements regarding the future financial and operating results, future product portfolio, new technology, etc. There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied in the predictive statements. Therefore, such information is provided for reference purpose only and constitutes neither an offer nor an acceptance. Huawei may change the information at any time without notice.

