



EPM Field Solutions

EPM solutions

Solution 1: Onsite grid is single-phase, and no weather meter, meter and other equipment access requirements.

Solution 2: Onsite grid is three-phase, and no weather meter and other equipment access requirements.

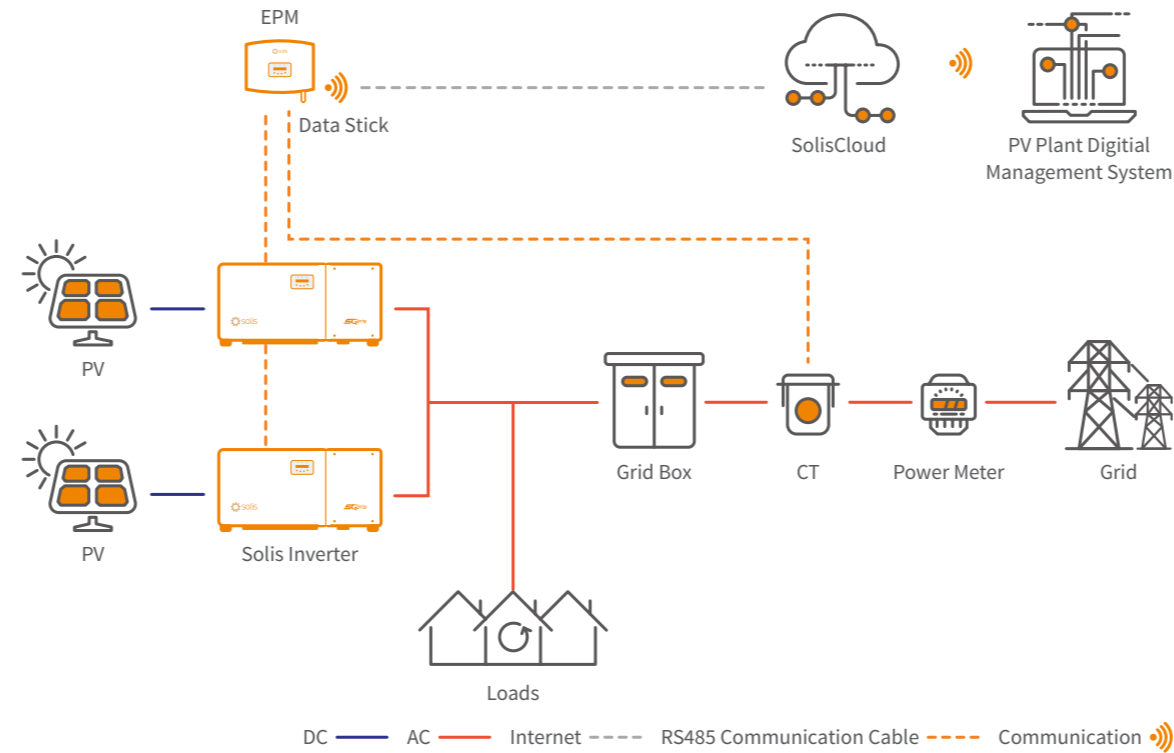
Solution 3: Onsite grid is three-phase, and need to use the meter to choose the third option.

Solution 4: Onsite grid is three-phase, and need to connect with weather station or third-party device. The number of inverters ≤45 units.

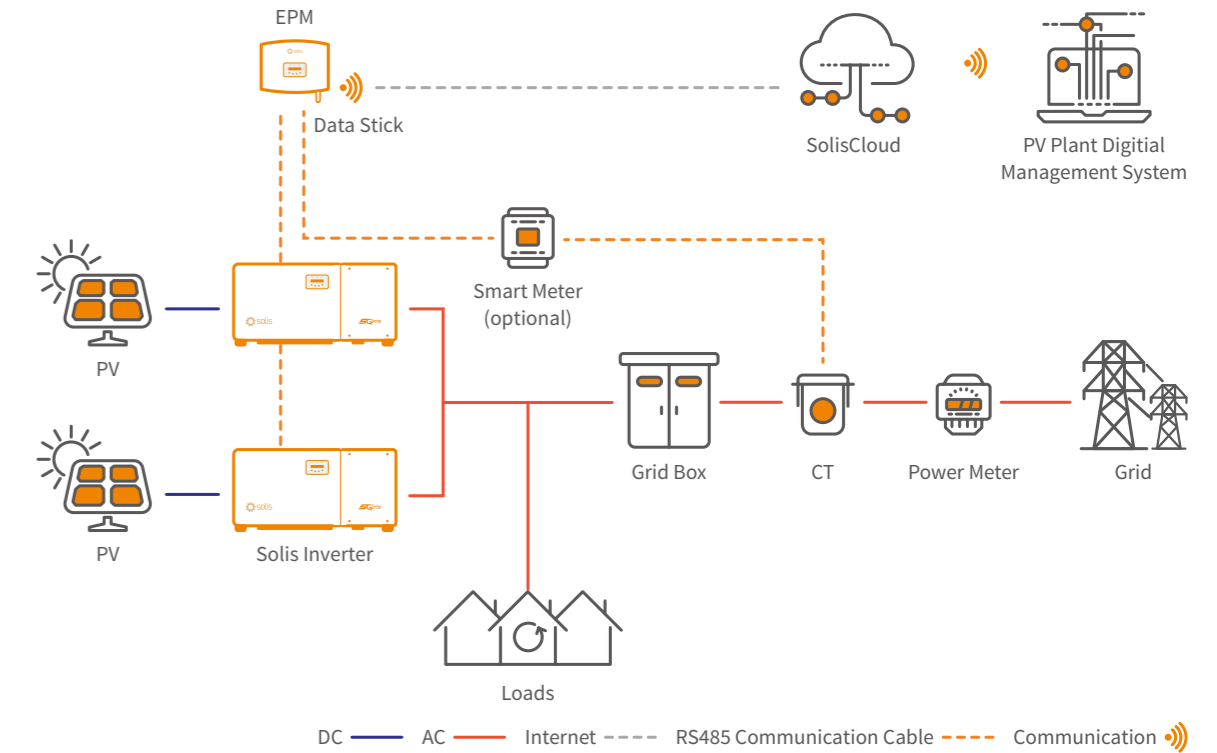
Solution 5: Onsite grid is three-phase, and need to connect with weather station or third-party device. The number of inverters ≤105 units.

EPM Solutions	Solution 1	Solution 2	Solution 3	Solution 4	Solution 5
Device Model	Solis-EPM1-5G	Solis-EPM3-5G-PLUS	Solis-EPM3-5G-PRO	S3-Logger + Meter	G3-Gateway + Meter
Supply Voltage	100-300V(L-N)	175-520V(L-L)	100-300V(L-N) 175-520V(L-L)	100-240V	100-240V
COM	/	/	/	4	8
Inverter Number	20 (recommended)	20 (recommended)	20 (recommended)	Each COM ports≤15 Units	Each COM ports≤15 Units
Grid Electrical Parameters					
Rated Voltage	220V/230V/240V	3/(N)/PE, 400V 3/PE, 480V	1/N/PE, 230V 3/(N)/PE, 400V 3/PE, 480V	N/A	N/A
Single phase	√	×	×	√	√
Three phase	×	√	√	√	√
Communication Method					
Inverter	RS485	RS485	RS485	RS485	RS485
SolisCloud	External Data logging Stick	Built-in Data logging module	External Data logging Stick	No need external devices	No need external devices
Extended Functions					
Weather Station	×	×	×	√	√
Meter	×	√(Built-in Meter)	√	√	√
Others					
Solution Diagram	Diagram 1	Diagram 3-1	Diagram 3-1 / 3-2	Diagram 2	Diagram 2
Note	/	/	Need the site to have PT and CT for the grid connection point		

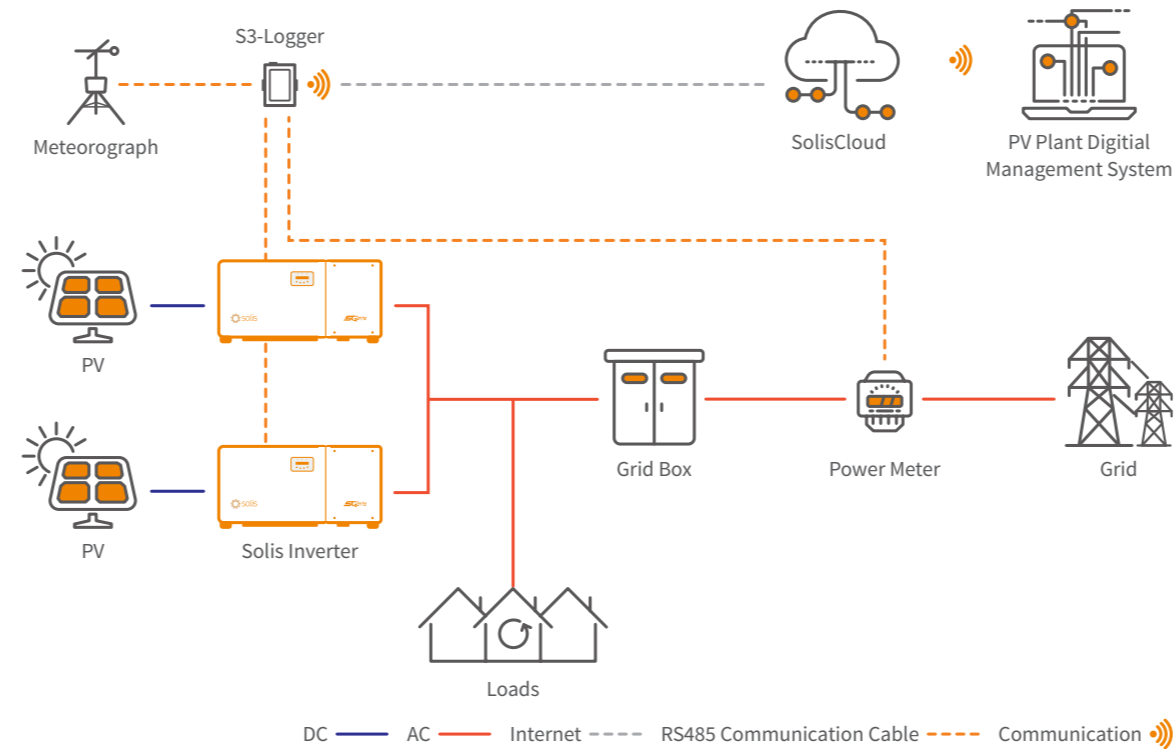
Solution Diagram 1 (Solution 1)



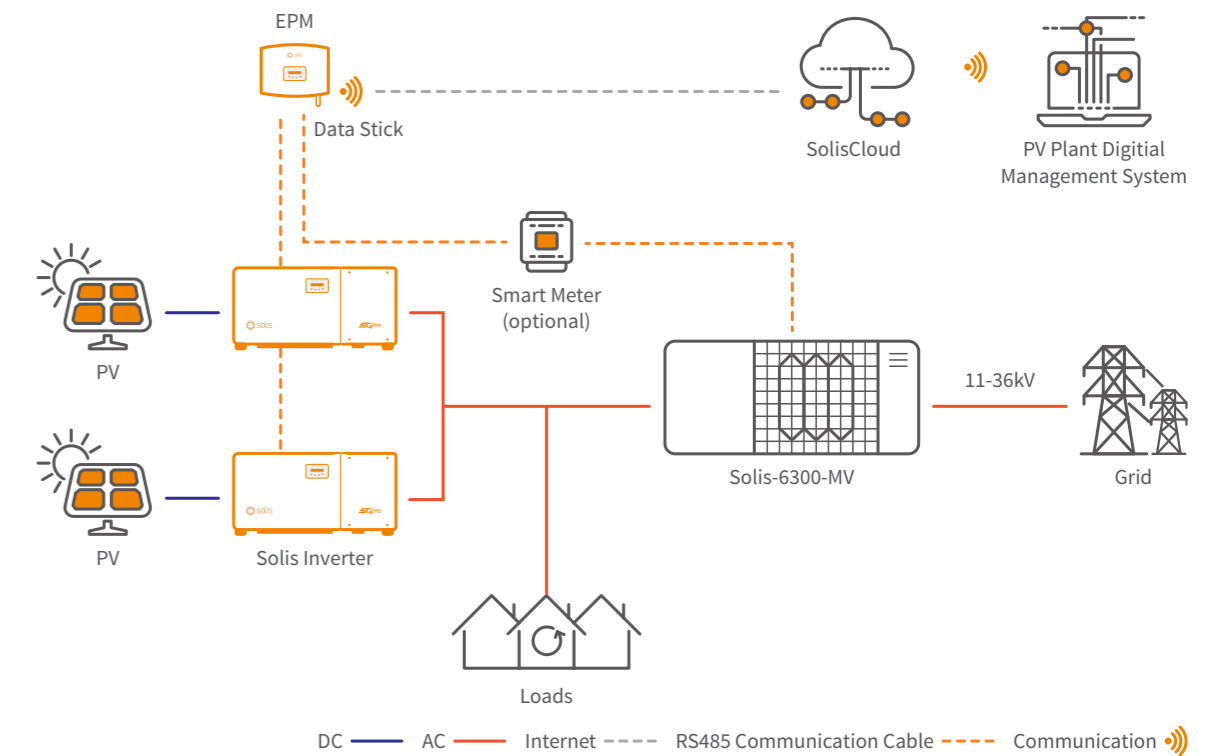
Solution Diagram 3-1 (Solution 2 & Solution 3)



Solution Diagram 2 (Solution 4 & Solution 5)



Solution Diagram 3-2 (Solution 3)



DATASHEET

Solis-EPM-5G

Models	Solis-EPM1-5G	Solis-EPM3-5G-PLUS	Solis-EPM3-5G-PRO
Input AC			
Rated voltage	1/N/PE, 230 V	3/(N)/PE, 400 V; 3/PE, 480 V	1/N/PE, 230 V; 3/(N)/PE, 400 V; 3/PE, 480 V
Input voltage range	100 ~ 300 V (L-N)	175~ 494 V (L-L)	100 ~ 300 V (L-N); 175 ~ 494 V (L-L)
Input frequency range	45~65 Hz		
Communication			
Inverter communication	Modbus		
Communication with inverter	RS485 (Wired)		
Max. communication inverter numbers	20	20 (Recommended)	20 (Recommended)
Monitoring	WiFi/4G/LAN Stick (Optional)	WiFi/LAN (Integrated)	WiFi/4G/LAN Stick (Optional)
General Data			
Operating ambient temperature range	-25 ~ +60°C		
Relative humidity	5%~95%		
Max. operation altitude	2000 m		
Ingress protection	IP65		
Pollution degree	PD2 (Inside), PD3 (Outside)		
Overvoltage category	III		
Self-consumption	<6 W	<15 W	<6 W
Dimensions (W*H*D)	364*276*114 mm	488*446*149 mm	364*276*114 mm
Weight	2.1 kg (without CT, Meter)	5.4 kg (without CT)	2.1 kg (without CT, Meter)
AC connection	Quick connection terminal		
Display	LCD		
Smart meter	No	Three phase: DTSD1352-C (Integrated)	Split phase: AGF-AE-D Three phase: ADL3000-E-B
CT connection	Plug terminal		
CT specification	Single phase: Standard (100/5 A or 300/5 A)	Three phase: Optional (Secondary current is 5 A)	Split phase: Standard (200/40 mA) Three phase: Optional (Secondary current is 5 A)
Power control accuracy	1%Pn		
Features			
Failsafe function	Yes		
Remote upgrade	Yes		
Control time	5 s		

CT specification

Specification	Dimensions (mm)			Hole size (mm)		Ratio
	W	H	D	a	e	
CT-30×20-100 A	90	114	40	22	32	100:5 A
CT-60×40-300 A	114	140	36	42	62	300:5 A
CT-80×40-600 A	122	162	40	42	82	600:5 A
CT-80×40-1000 A	122	162	40	42	82	1000:5 A
CT-160×80-2000 A	184	254	52	82	162	2000:5 A
CT-160×80-3000 A	184	254	52	82	162	3000:5 A

DATASHEET

S3-Logger

Models	S3-Logger
Communication	
Supported device type	Solis inverter
Number of connected inverters ⁽¹⁾	Each RS485 PORT≤15
Data collection intervals	5 minutes
Status indicator	2 LED Indicator Lights
RS485	COM × 4, 1200~19200 bps, communication distance ≤1000 m
Ethernet communication	LAN × 1, 10/100Mbps adaptive, communication distance ≤100 m
Communication Protocol	
RS485	Modbus-RTU, IEC60870-5-103, DLT645
Ethernet	Modbus-TCP, IEC60870-5-104
Electrical	
AC power supply	100~240 V, 50 Hz / 60 Hz
DC power supply	9~36 V
Operating power consumption	5 W@12VDC
Environment	
Operating ambient temperature range	-40 ~ +80°C
Operating humidity	≤85%, relative humidity, non-condensing
Storage temperature	-40 ~ +80°C
Max. operation altitude	4000 m
Mechanical	
Dimensions (L*W*H)	89*121*27 mm
Protection degree	IP20
Installation method	Rail Mounting, Desktop installation
Others	
Certification	vCE, RoHS

(1) Inverters must first be hand-in-hand connected by RS485.

Matching Instructions

Type	Manufacturer	Model	Connection method	Special note
Meteorograph	Jinzhou Sunshine	PC-4	RS485 connect to the P3 port on S3-Logger	1. In addition to the above device models, the newly matched models will continue to be updated; 2. If you need to match new meteorological or meter devices, please provide manuals, specifications, communication protocols; 3. The match of the new equipment, the development time is about 2 weeks, and the final delivery of the new firmware will be upgraded on site.
	Rainwise	PVmet-75 PVmet-200		
Meter	Acrel	DTSD1352	RS485 connect to the P4 port on S3-Logger	
		ADL3000-E-B		
	Janitza	UMG-96RM		
		UMG-512		
Mikro	RX380			

DATASHEET

G3-Gateway

Models	G3-Gateway
Communication	
Supported device type	Solis inverter
Number of connected inverters ⁽¹⁾	Each RS485 PORT≤15
Data collection intervals	5 minutes
RS485	COM × 8, 1200~19200 bps, communication distance ≤1000 m
Ethernet communication	LAN × 2, 10/100 Mbps adaptive, communication distance ≤100 m
Communication Protocol	
RS485	Modbus-RTU, IEC60870-5-103, DLT645
Ethernet	Modbus-TCP, IEC60870-5-104
Electrical	
AC power supply	100~240 V, 50 Hz / 60 Hz
DC power supply	9~36 V
Operating power consumption	5 W@12VDC
Environment	
Operating temperature	-40 ~ +80°C
Storage temperature	-40 ~ +80°C
Operating humidity	≤85%, Relative humidity, no condensa
Max. operation altitude	4000 m
Mechaical	
Dimensions (L*W*H)	121*54*200 mm
Protection degree	IP20
Installation method	Rail Mounting, Desktop installation
Others	
Certification	CE, RoHS

(1) Inverters must first be hand-in-hand connected by RS485.