



EPM Field Solutions

EPM solutions

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

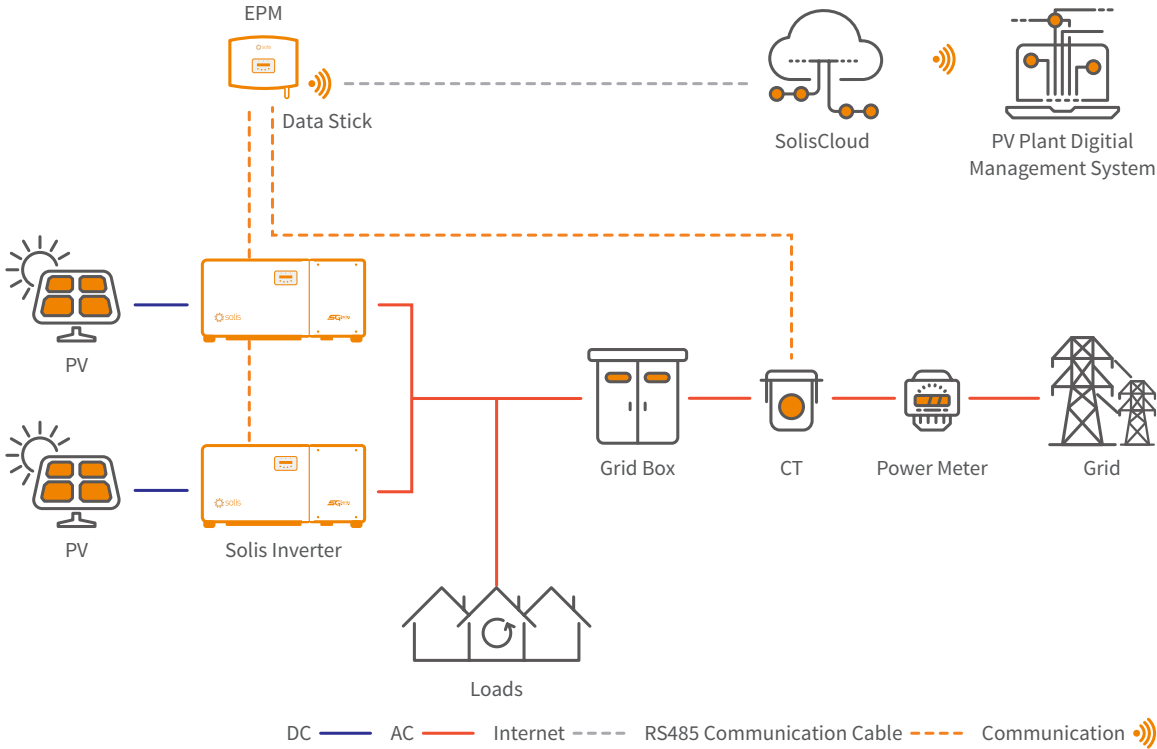
Solution 2: Onsite grid is three-phase, and need to use the meter.

Solution 3: Onsite grid is three-phase, and need to connect with weather station or third-party device. The number of inverters ≤45 units.

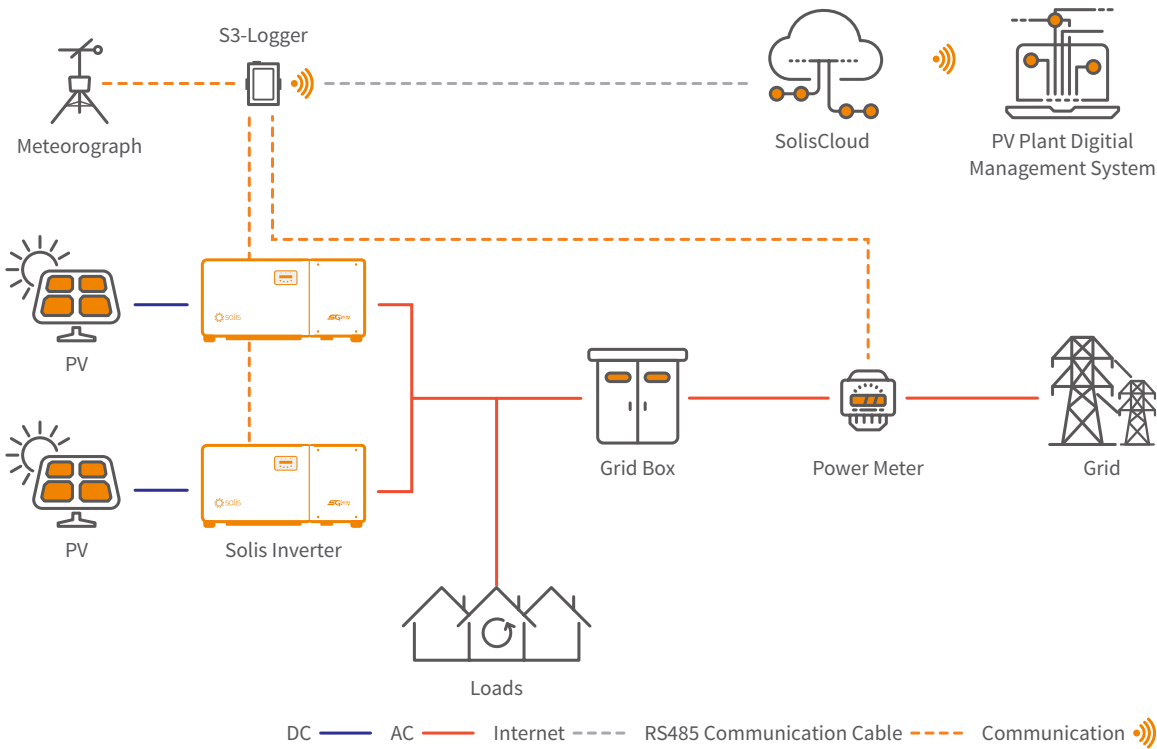
Solution 4: Onsite grid is three-phase, and need to connect with weather station or third-party device. The number of inverters ≤105 units.

EPM Solutions	Solution 1	Solution 2	Solution 3	Solution 4
Device Model	Solis-EPM1-5G	Solis-EPM3-5G-PRO	S3-Logger-EPM + Meter	G3-Gateway + Meter
Supply Voltage	100-300V(L-N)	100-300V(L-N) 175-519V(L-L)	100-240V	100-240V
COM	/	/	4	8
Inverter Number	20 (recommended)	20 (recommended)	Each COM port≤15 Units	Each COM port≤15 Units
Grid Electrical Parameters				
Rated Voltage	220V/230V/240V	3/(N)/PE, 400V 3/PE, 480V	N/A	N/A
Single phase	√	×	√	√
Three phase	×	√	√	√
Communication Method				
Inverter	RS485	RS485	RS485	RS485
SolisCloud	External Data logging Stick	External Data logging Stick	No need external devices	No need external devices
Extended Functions				
Weather Station	×	×	√	√
Meter	×	√	√	√
Others				
Solution Diagram	Diagram 1	Diagram 3-1 / 3-2	Diagram 2	Diagram 2
Note	/	Need the site to have PT and CT for the grid connection point		

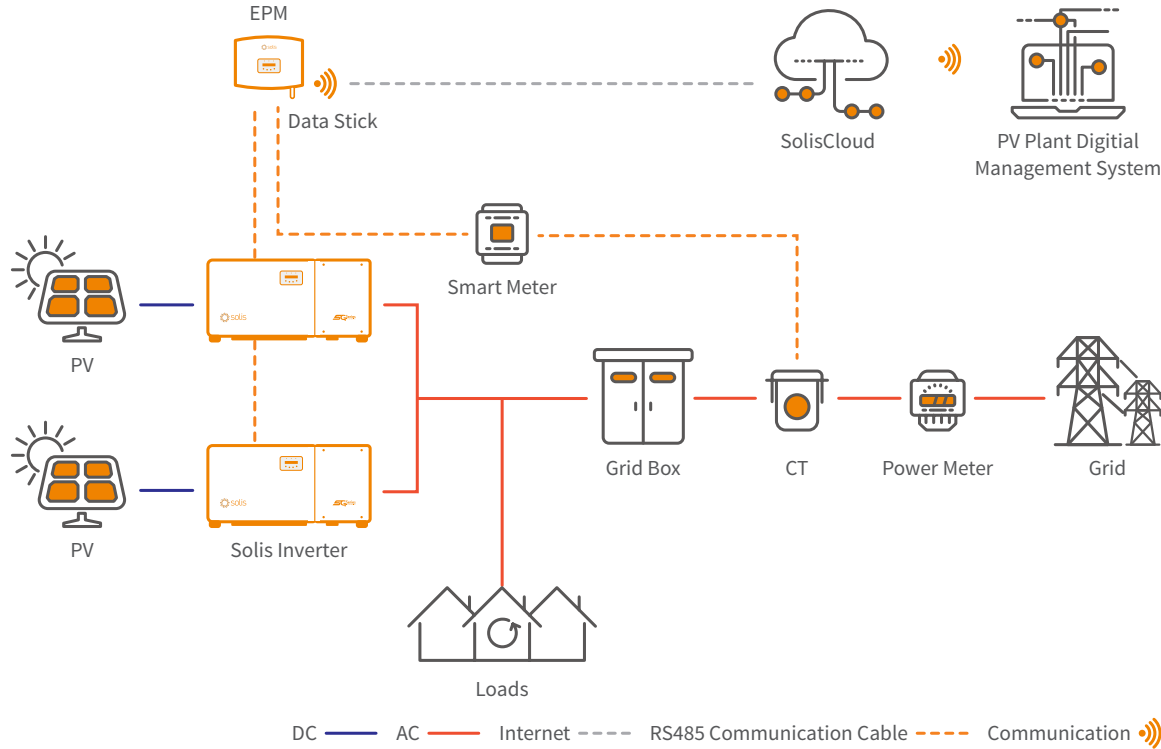
Solution Diagram 1 (Solution 1)



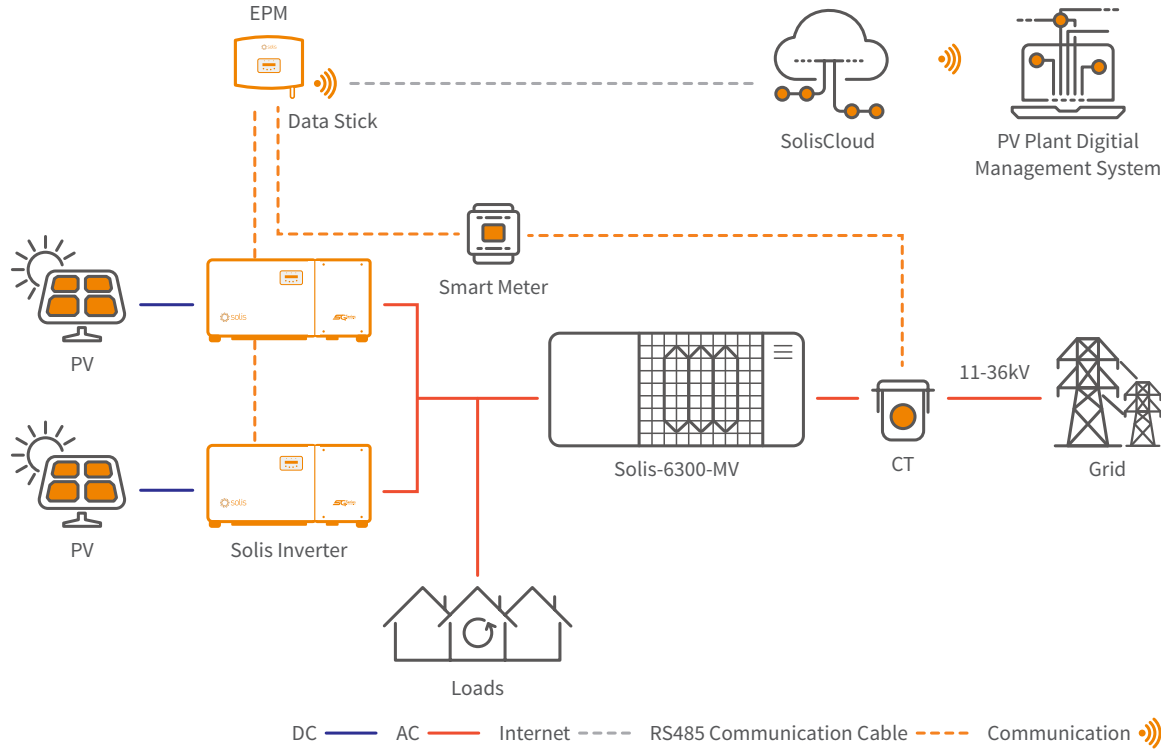
Solution Diagram 2 (Solution 3 & Solution 4)



Solution Diagram 3-1 (Solution 2)



Solution Diagram 3-2 (Solution 2)



DATASHEET

Solis-EPM-5G

Models	Solis-EPM1-5G	Solis-EPM3-5G-PRO					
Input AC							
Rated voltage	1/N/PE, 230 V	1/N/PE, 230 V; 3/(N)/PE, 400 V; 3/PE, 480 V					
Input voltage range	100 ~ 300 V (L-N)	100 ~ 300 V (L-N); 175 ~ 519 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)					
Monitoring	WiFi / 4G / LAN Stick (Optional)	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	< 6 W					
Dimensions (W × H × D)	364 × 276 × 114 mm	364 × 276 × 114 mm					
Weight	2.1 kg (without CT, Meter)	2.1 kg (without CT, Meter)					
AC connection	Quick connection terminal						
Display	LCD						
Smart meter	No	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)	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						
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-EPM

Models		S3-Logger-EPM
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 / 100 Mbps adaptive, communication distance ≤ 100 m
Zero power output		Yes
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 @ 12 VDC
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		CE, 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 connects to the P3 port on the S3-Logger	1. In addition to the above device models, the newly-matched models will continue to be updated;
	Rainwise	PVmet-75	PVmet-200		
	SevenSolar	3S-IS V7			
	Ingenieurburo	Si-RS485TC-2T			
Meter	Acrel	DTSD1352	ADL3000-E-B	RS485 connects to the P4 port on the S3-Logger	2. If you need to match new meteorological or meter devices, please provide manuals, specifications, and communication protocols; 3. To match the new device, development time is about 2 weeks and the final delivery of the new firmware will be upgraded on site.
	Janitza	UMG-96RM	UMG-512		
	Mikro	RX380			
	MEATROL	EM231			
	Schneider	PM5100	iEM3000		
		iEM3255	EM6400		
	Iskra	MC774			

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.