Fusionsolar

GTM Enablement Training – LB0

A Home that Always Shines

👤 Residential Distribution Business

A Home that Always Shines

Newly upgraded single-phase inverter

SUN2000-3/3.68/4/4.6/5/6K-LB0

New

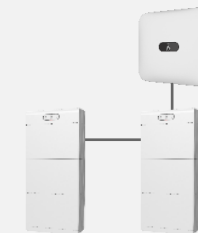## Current boost, safety upgrade

12A → **2 MPPT**
16A

100V → **Startup**
50V

80M → **AFCI detection distance**
200M

9.6 kb/s → **Transmission rate**
115.2 kb/s

Battery Ready

Adapts to all Huawei energy storage products.

Power backup throughout the house, worry-free power consumption

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New Capabilities

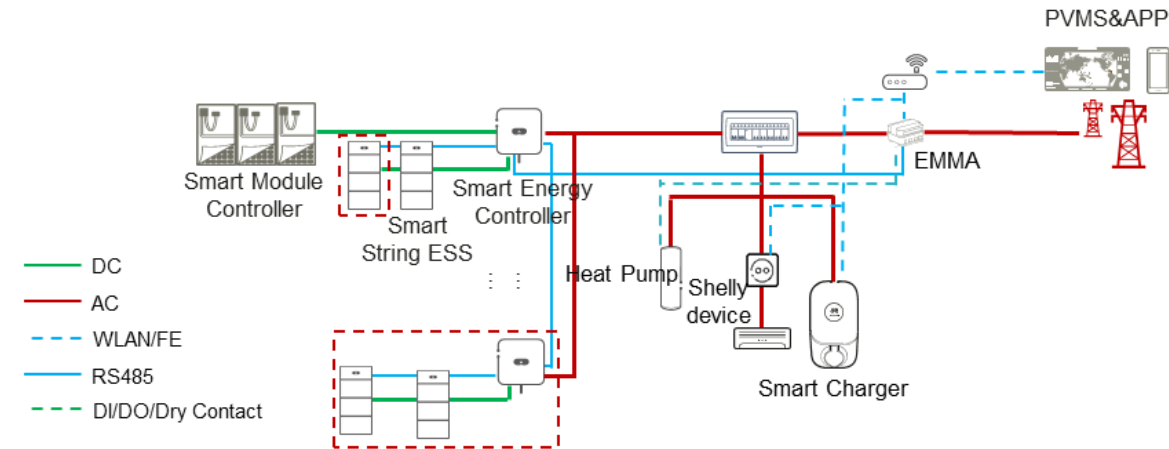| Features	L1	LB0
AFCI 2.0	No	Yes
RSD	Yes	Yes
Optimizer	Yes	Yes
2*S1	No	Yes
>13A current Module	No	Yes
Startup voltage 50V	No	Yes

Total Cost Comparison of 5kWac Pure PV System

* Price shown here is only an example in Spanish market

Inverter	Modules	Module Amount	Module Price	Inverter Price	Bracket Price	Bracket Amount	Total cost/€
L1-5KTL	Trina Solar Vertex S **410W**	14	115.02	595	74	14	**3241**
LB0-5KTL	Trina Solar Vertex **570W**	10	143.52	745	74	10	**2920**

Despite higher inverter price, system cost with LB0 is **10% lower** as that with L1

Data source for module price：

LB0 Single-Phase Inverter Solution: EMMA Networking
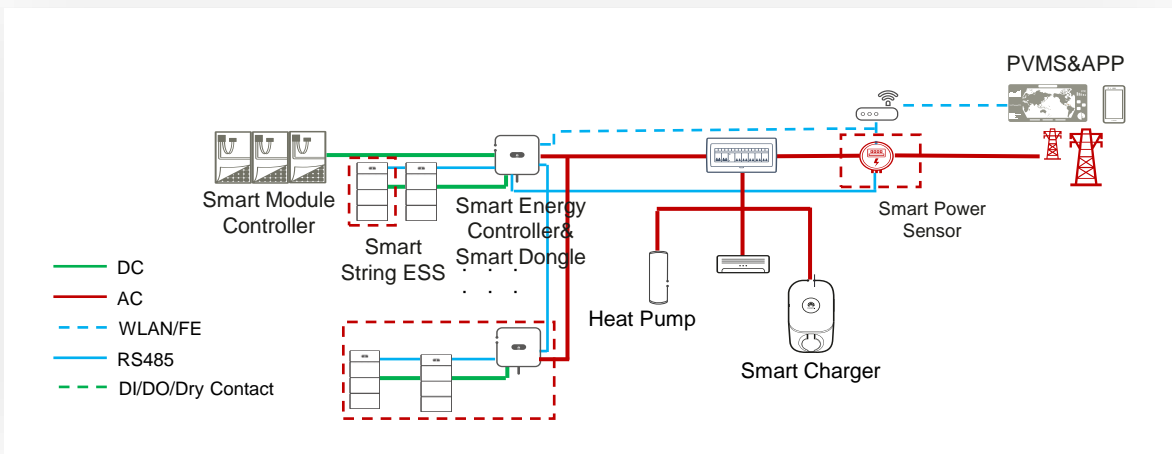
Product networking diagram

Remarks:

- S0 and S1 cannot be used together in the same inverter. CAN be used together in the same system different inverter.
- The EMMA can use an external meter. For details, see the EMMA User Manual.

Solution Configuration Table

Product	Model	Quantity
Optimizer	SUN2000-450W-P2	Refer to the user manual.
	SUN2000-600W-P	
Inverter	SUN2000-2-6KTL-L1	≤ 3
	Or: SUN2000-3-6K-LB0	
	Or SUN2000-8/10K-LC0	
ESS	LUNA2000-5/10/15-S0	≤ 2 ESSs
	Or: LUNA2000-7/14/21-S1	
Charger	SCharger-7KS-S0	≤ 2
EMMA	EMMA-A02	1
heat pump	SG ready	≤ 1
Smart switch	Shelly Plus Plug S	≤ 20
	Shelly Pro 2PM	
	Shelly Plus 2PM	

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LB0 Single-Phase Inverter Solution: Dongle+Meter Networking
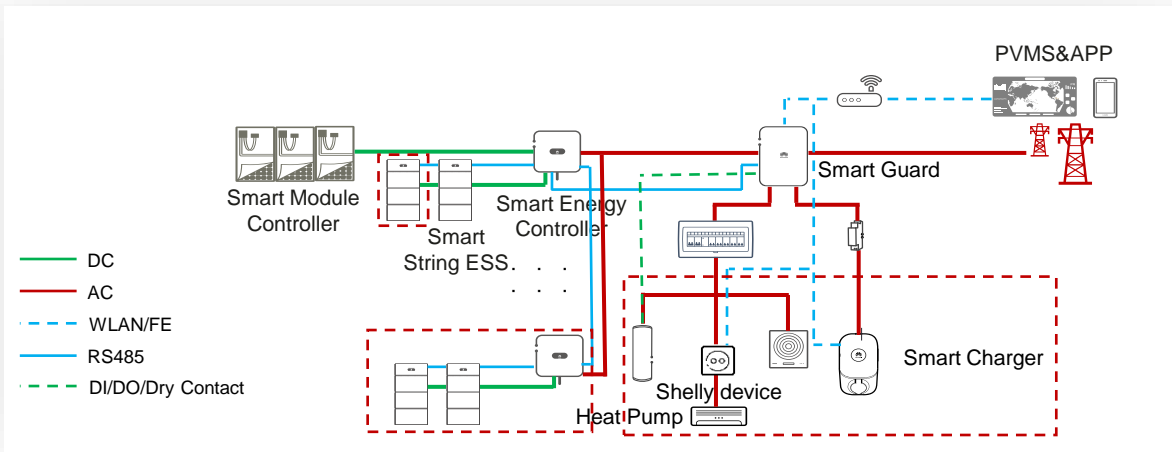
Product networking diagram

Remarks:

- S0 and S1 cannot be used together in the same inverter. CAN be used together in the same system different inverter.
- In zero-power grid-tied mode, green power is unavailable first.

Solution Configuration Table

Product	Model	Quantity
Optimizer	SUN2000-450W-P2	Refer to the user manual.
	SUN2000-600W-P	
Inverter	SUN2000-2-6KTL-L1	≤ 3
	Or: SUN2000-3-6K-LB0	
	Or SUN2000-8/10K-LC0	
Energy storage	LUNA2000-5/10/15-S0	≤ 2 ESSs
	Or: LUNA2000-7/14/21-S1	
Charging pile	SCharger-7KS-S0	≤ 2
Dongle	SDongleA-05	1
	SDongleB-06	
Electric meter	YDS60-80, YDS60-C24	1
heat pump	SG ready	≤ 1
Intelligent switch	Shelly Plus Plug S	≤ 20
	Shelly Pro 2PM	
	Shelly Plus 2PM	

LB0 Single-Phase Inverter Solution: Backup with SmartGuard

Product networking diagram

Remarks:

- S0 and S1 cannot be used together in the same inverter. CAN be used together in the same system different inverter.
- In zero-power grid-tied mode, green power is unavailable first.
- The charging post must be connected to the non-backup power port of the SmartGuard.

Solution Configuration Table

Product	Model	Quantity
Optimizer	SUN2000-450W-P2	Refer to the user manual.
	SUN2000-600W-P	
Inverter	SUN2000-2-6KTL-L1	1
	Or: SUN2000-3-6K-LB0	
	Or SUN2000-8/10K-LC0	
Energy storage	LUNA2000-5/10/15-S0	≤ 2 ESSs
	Or: LUNA2000-7/14/21-S1	
Charging pile	SCharger-7KS-S0	≤ 2
Power backup box	SmartGuard-63A-S0	1
heat pump	SG ready	≤ 1
Smart switch	Shelly Plus Plug S	≤ 20
	Shelly Pro 2PM	
	Shelly Plus 2PM	

Overview of Application Scenarios for LB0

Scenario	Optimizer	ESS	Networking Controller	Maximal Inverter Cascade Number	Backup
PV-only on-grid	SUN2000-450W-P2 or SUN2000-600W-P		Dongle/ EMMA	3	
PV + ESS on-grid		S0 or S1	Dongle/ EMMA	3	
PV + ESS on-grid/ off-grid		S0 or S1	EMMA	1	SmartGuard S0
PV + ESS off-grid	Not allowed	S0 or S1	Dongle	1	
			EMMA	3	

Application Principles:

- LB0 CAN cascade with other HUAWEI single-phase inverters (L1 or LC0)

- LB0 support S0/S1, each inverter max. 2 stacks (max. 6 battery packs);

- LB0 series is not compatible with BackupBox