

Sigenergy C&I Products and Solutions Overview

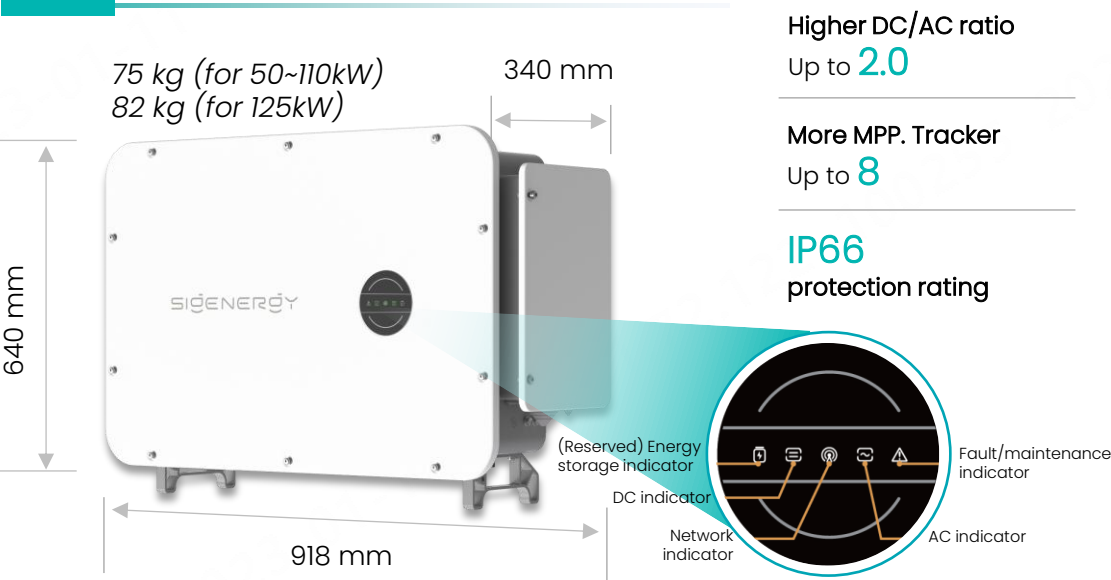
2025/09



SIGENERGY

Sigen PV Inverter, Only for PV

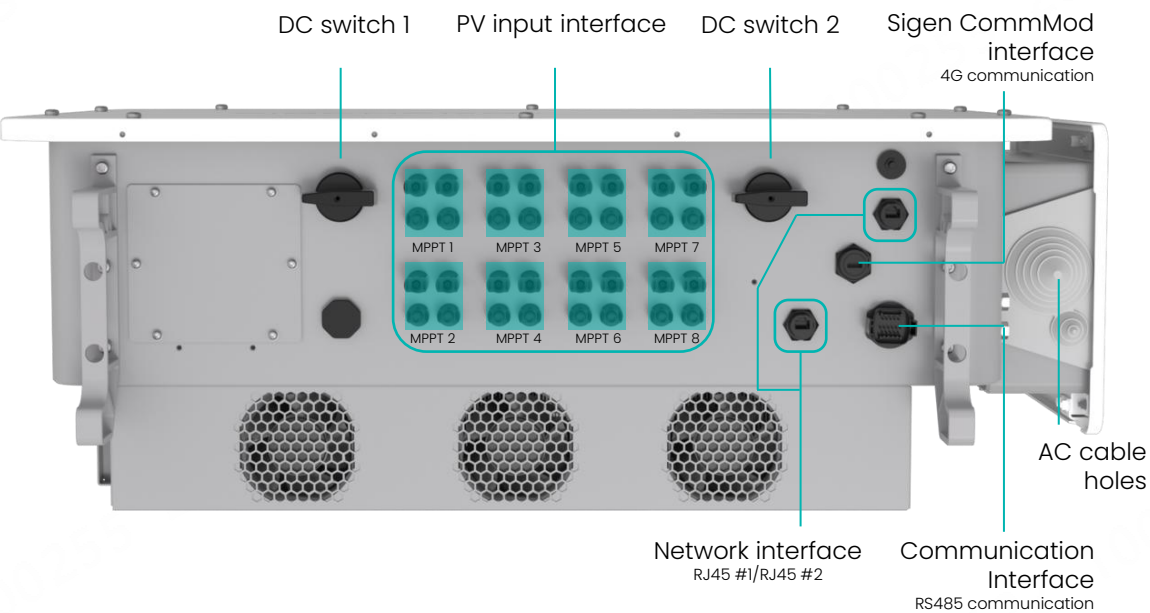
Sigen PV Inverter



Nominal output power (kW)	50	60	80	100	110	125
Max. output power (kW)	55	66	88	110	121	137.5
Max. input current per MPPT (A)	40	40	40	40	40	40

4 MPPT 5 MPPT 6 MPPT 8 MPPT

Sigen PV Inverter ports demonstration (110kW)

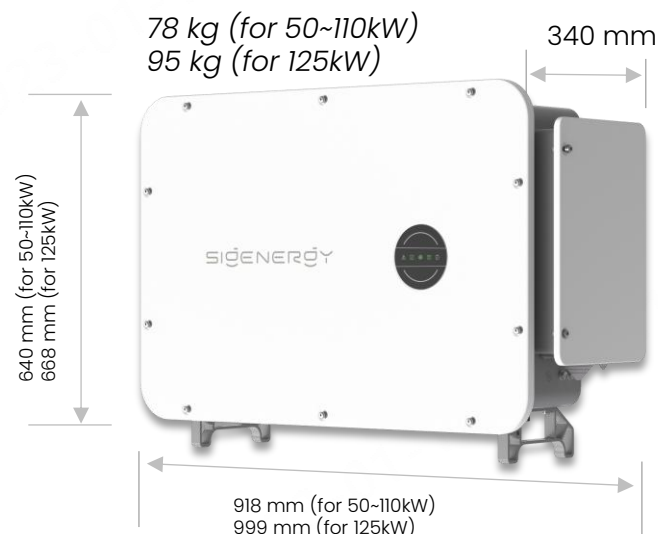


Nominal output voltage: 220/380V, 230/400V

Communication: WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)

Sigen Hybrid Inverter, Battery Ready for ESS

Sigen Hybrid Inverter



Higher DC/AC ratio

Up to **2.0**

More MPP. Tracker

Up to **8**

IP66

protection rating

SigenStack

Compatible Battery

Max. operating current

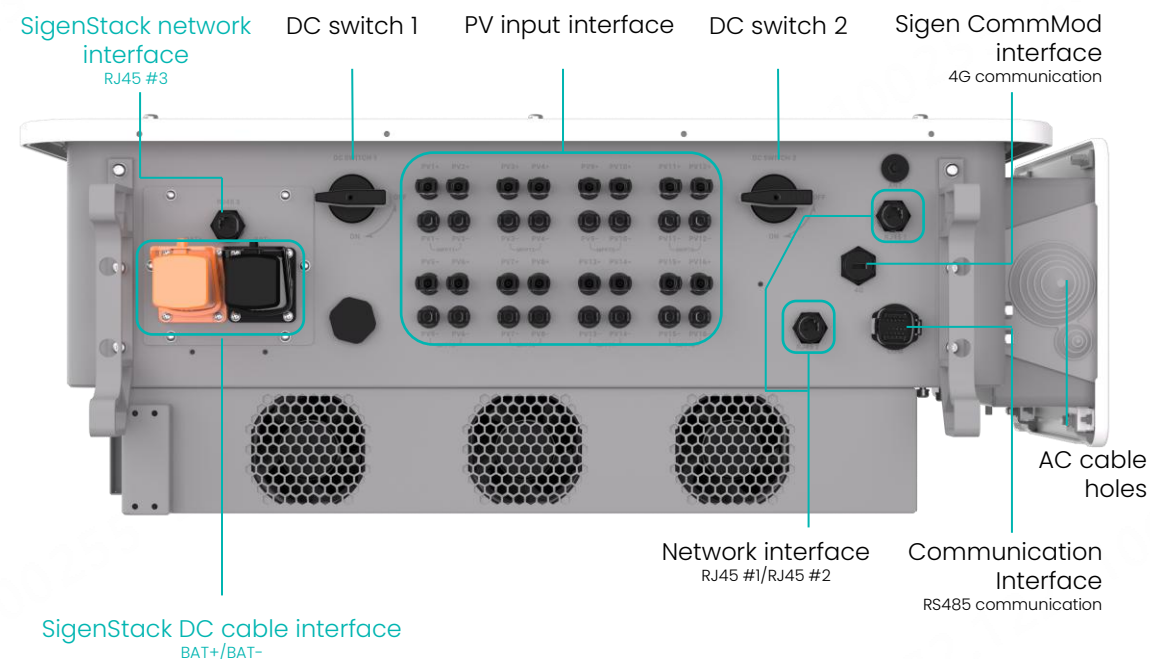
180 A

Nominal output power (kW)	50	60	80	100	110	125
Max. output power (kW)	55	66	88	110	121	137.5
Max. input current per MPPT (A)	40	40	40	40	40	40

4 MPPT 5 MPPT 6 MPPT

8 MPPT

Sigen Hybrid Inverter ports demonstration (110kW)



Nominal output voltage: 220/380V, 230/400V, **277/480V**

Communication: WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)

Sigen Hybrid Inverter, Support On-/Off-grid Solution

Sigen Hybrid Inverter **NEW**



Higher DC/AC ratio
Up to **2.0**

More MPP. Tracker
Up to **8**

IP66
protection rating

SigenStack
Compatible Battery

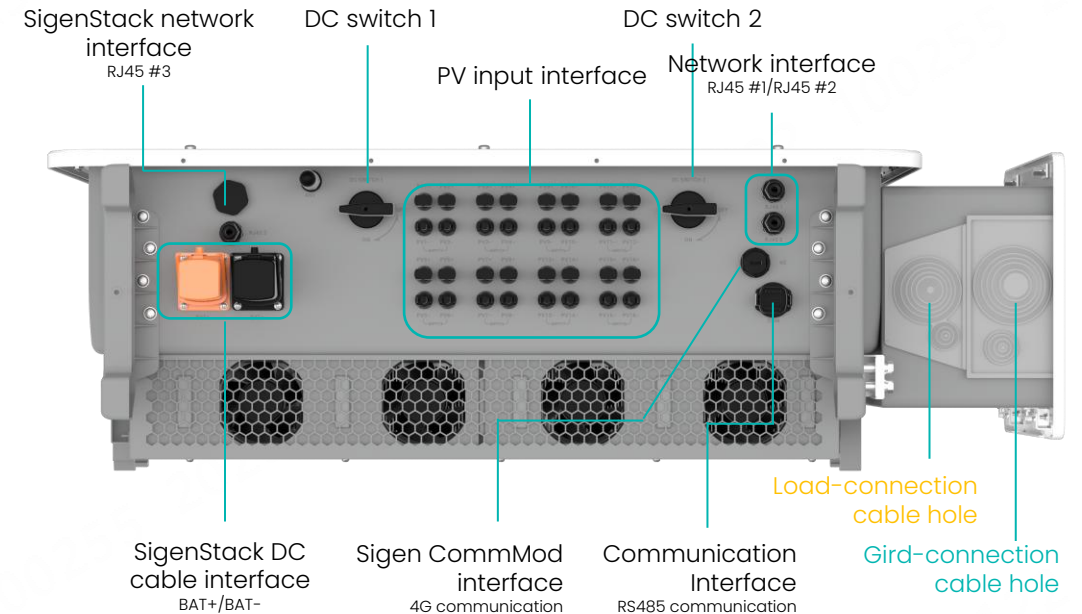
Max. operating current
180 A

Nominal output power (kW)	50	60	80	100	110
Max. output power (kW)	55	66	88	110	121
Peak output power 10 seconds (kW)	75	90	120	150	150
Max. input current per MPPT (A)	40	40	40	40	40

4 MPPT **5** MPPT **6** MPPT

8 MPPT

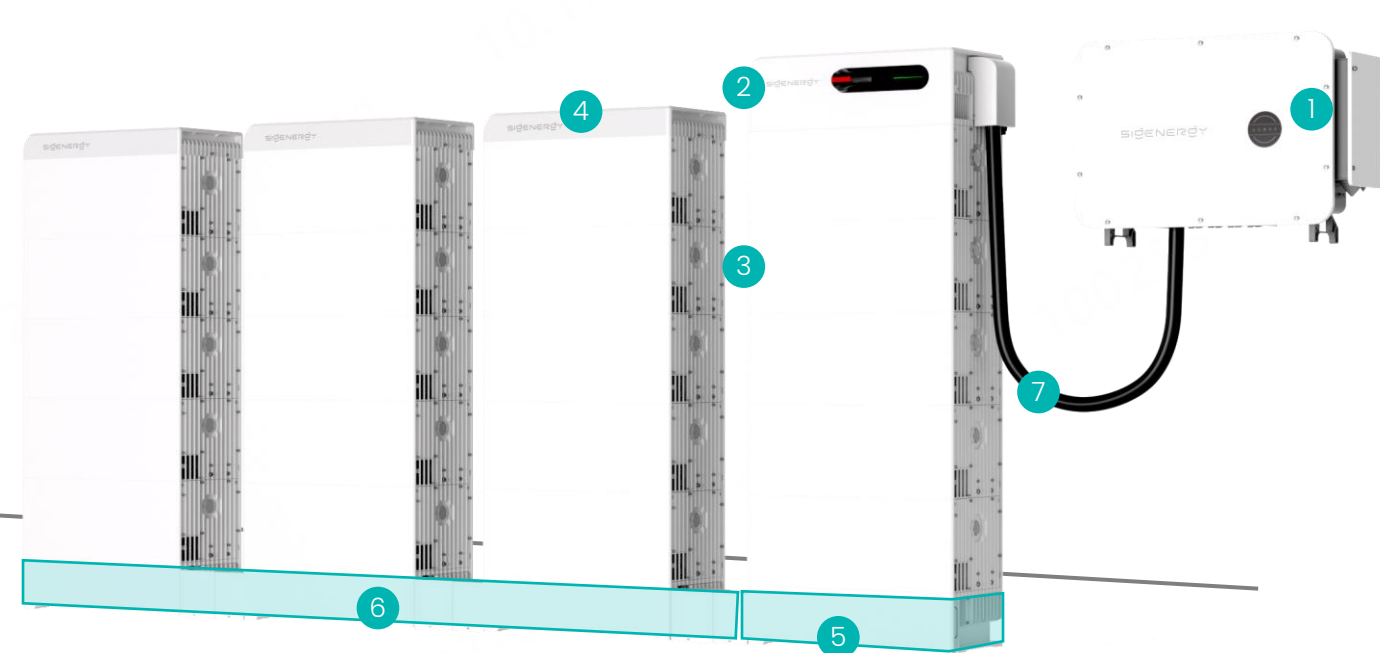
Sigen Hybrid Inverter ports demonstration (110kW)



Nominal output voltage: 220/380V, 230/400V, **277/480V**

Communication: WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)

SigenStack, Innovative Modular BESS Energy Solution



1 Sigen Hybrid Inverter

50/60/80/100/110/125 kW

2 Battery Controller

180 A Max. output current

3 Battery Module

Model: SigenStack BAT 12.0
12.06 kWh energy capacity per module
4 ~ 21 modules connected per inverter

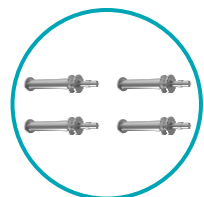
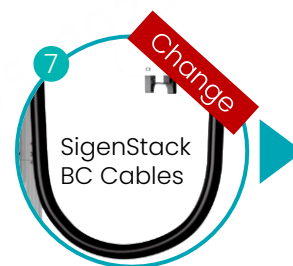


Cable provided by Sigenenergy

1. Tin-plated copper power cable
 - $S = 50\text{mm}^2$, $L = 4\text{m}$
2. Network cable
3. Grounding cable

Cable provide by installers

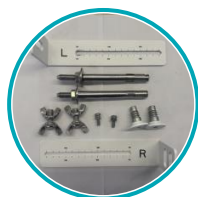
- Single-core copper cable power cable
- $S = 70\text{mm}^2$ ($L \leq 10\text{m}$, $T < 40^\circ\text{C}$)
 - $70 < S \leq 120\text{mm}^2$ ($L \leq 50\text{m}$)
 - Cable OD 11-22 mm
1. Network cable
 2. Grounding cable



Handles

1 set contains 4 pcs

Included in Base MAIN/4S package



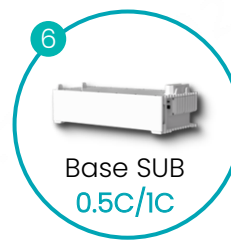
Fixed structures
(Optional)



Cover



Base MAIN
0.5C/1C

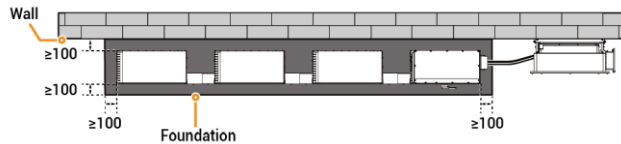


Base SUB
0.5C/1C

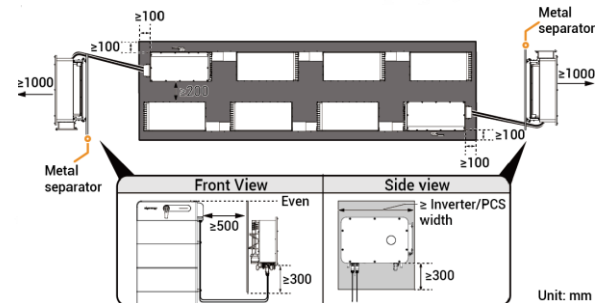
Installation Requirements for SigenStack

Installation scenario

1 Install against the wall



2 Install back-to-back



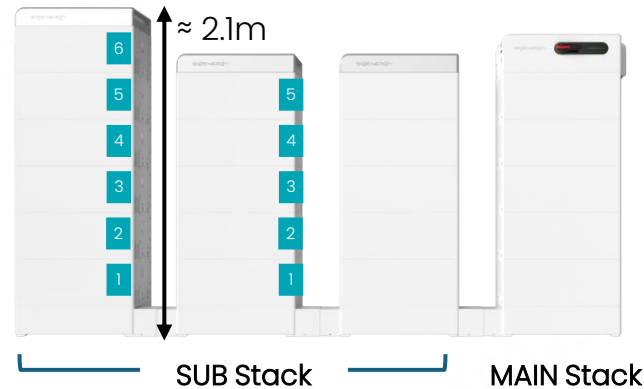
Limitation of SigenStack height

≤6 modules

For security and ease of O&M

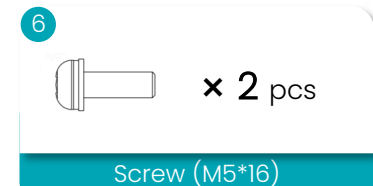
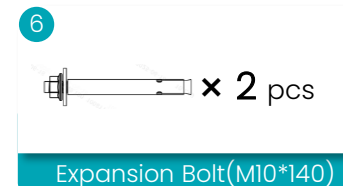
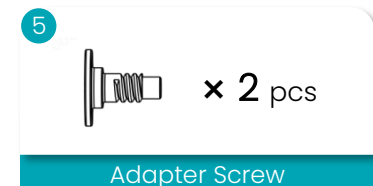
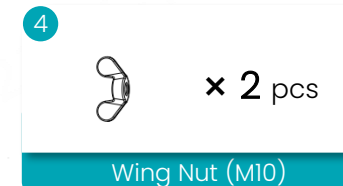
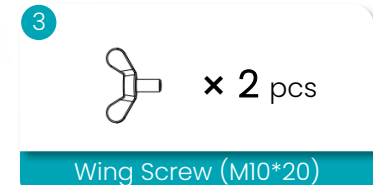
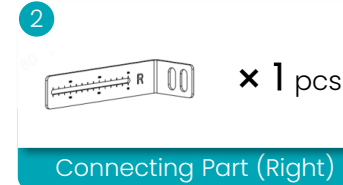
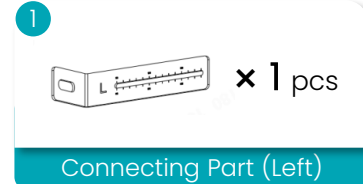
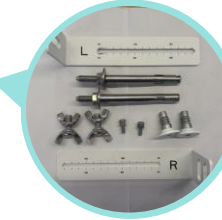
7 modules

Should install with additional fixed structures



4 ~ 21 modules connected per inverter

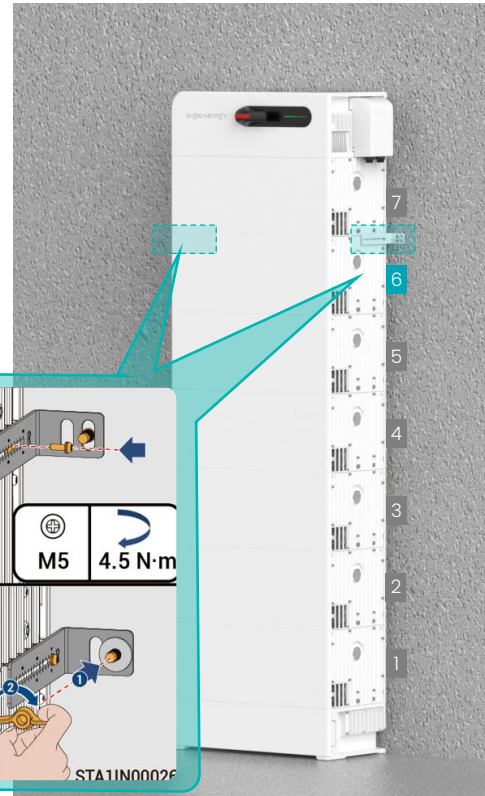
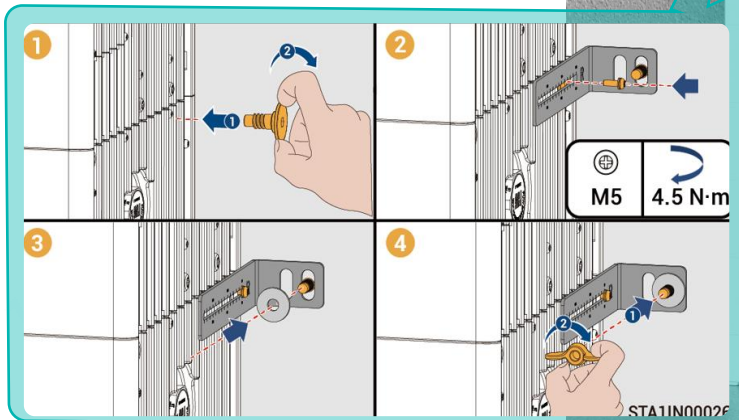
Fixed structures for 7 modules per stack



Fixation Method for 7 Battery Modules per Stack

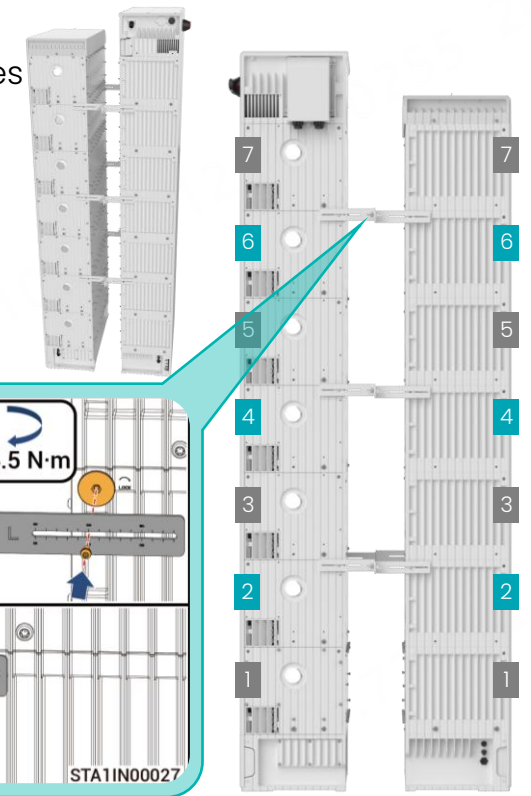
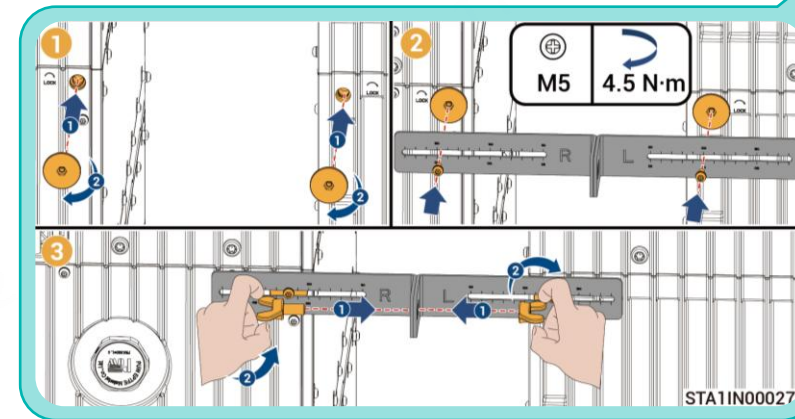
Fixation against the wall

Fix the 6th battery module to the wall on **both sides**



Back-to-back fixation

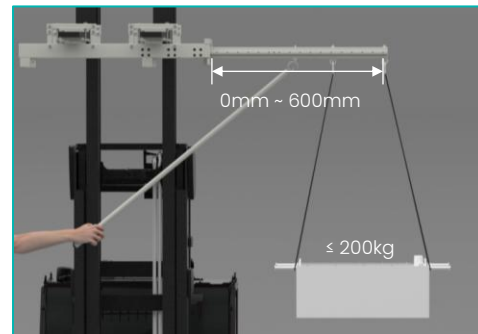
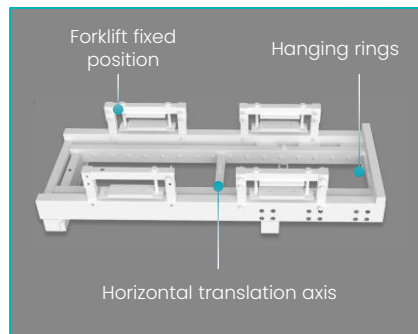
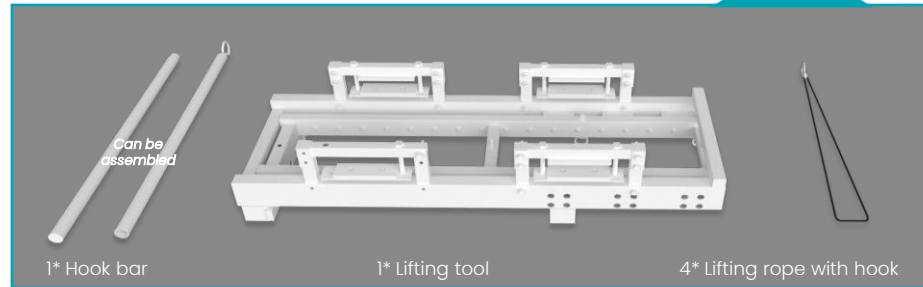
Fix the 2nd, 4th, and 6th battery modules back-to-back on **both sides**



New SigenStack Lifting Tool

SigenStack Lifting Tool Basic Information

Product Code	Product Model	Dimensions (W / D / H)	Weight
11180021	SigenStack Lifting Tool Kit	1185 / 500 / 340 mm	53 kg



SigenStack Lifting Tool Process



Basic Principles of Configuration

Configuration Quantity of Battery Modules and Battery Controller Selection Guide



SigenStack BC M2-0.5C



SigenStack BC M2-0.5C-BST

SigenStack BC M2-1C-BST

Tips:

SigenStack BC M2-0.5C can only be used in applications where an **on-grid energy storage only system with ≥ 20 battery modules operates under 380/400V grid voltage**. For other scenarios, please utilize the battery controller with 'BST' model

How to choose a battery controller ?

Compatible number of modules per system	On-grid		On-/Off-grid	
	ESS only	PV+ESS DC coupling	ESS only	PV+ESS DC coupling
20~21	BC M2-0.5C	BC M2-0.5C-BST BC M2-1C-BST		BC M2-0.5C-BST BC M2-1C-BST
4~19	BC M2-0.5C-BST BC M2-1C-BST			

Configuration requirements for energy storage and PV

PV+ESS DC coupling	Compatible number of modules per system	The requirements for the PV string input open-circuit voltage
	21	935 V
	20	870 V
	19	805 V
	4-18	No special requirements

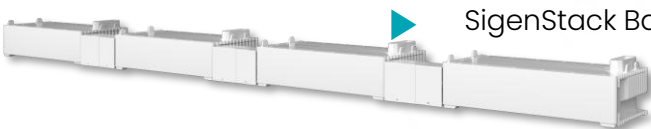
Type of SigenStack Base



SigenStack Base SUB-0.5C
SigenStack Base SUB-1C



SigenStack Base MAIN-0.5C
SigenStack Base MAIN-1C

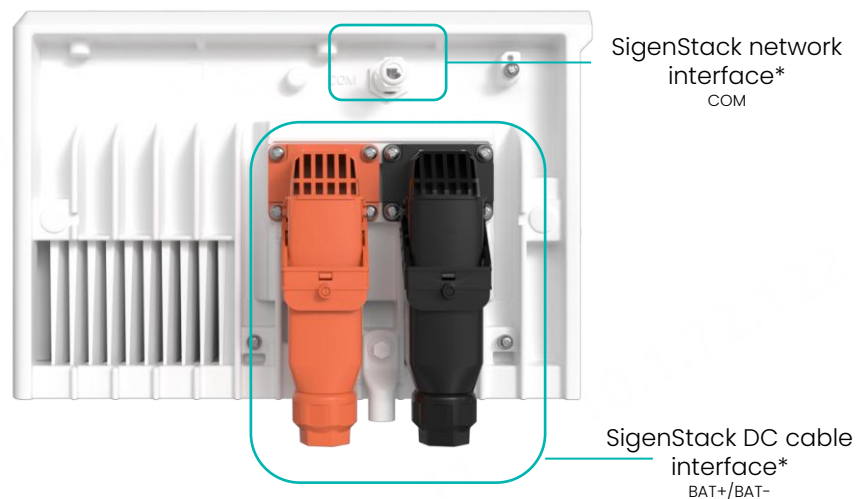


SigenStack Base 4S-0.5C

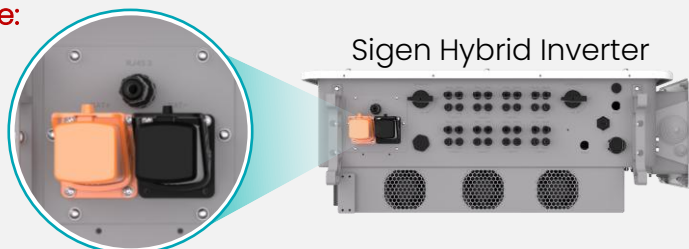


SigenStack BC & Base Ports Demonstration

SigenStack BC ports demonstration



Note:



*The PE cable, Power cable and Signal cable between the inverter and the battery controller need to be prepared by installer

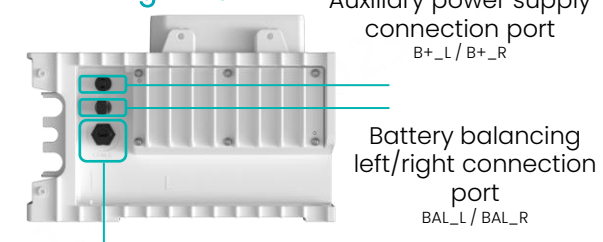
SigenStack Bases ports demonstration

Base SUB 0.5C/1C

Front view

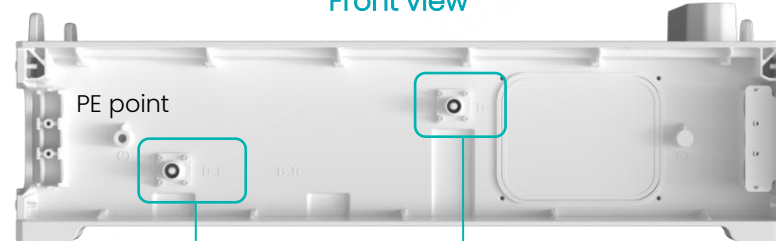


Right view

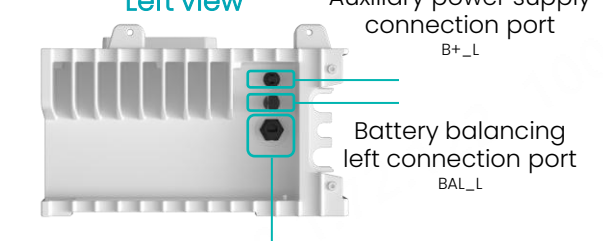


Base Main 0.5C/1C

Front view

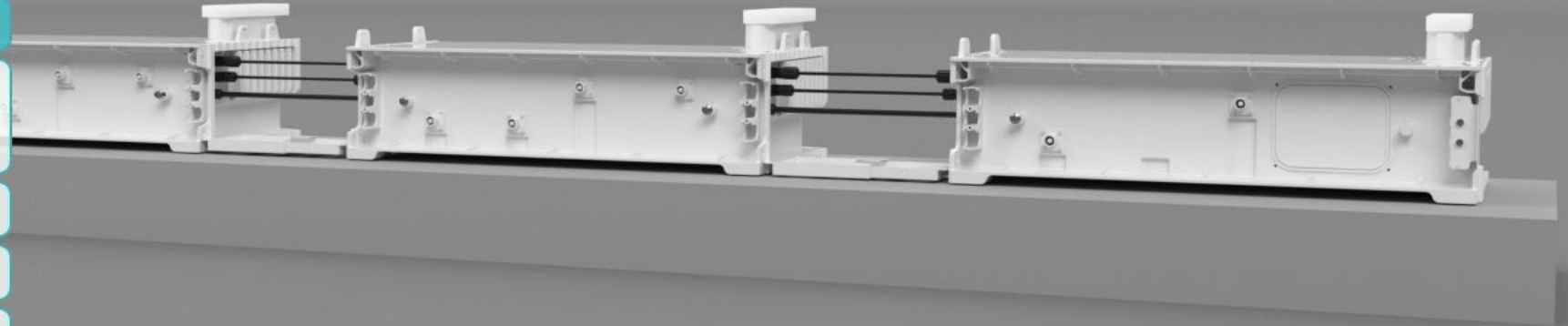


Left view



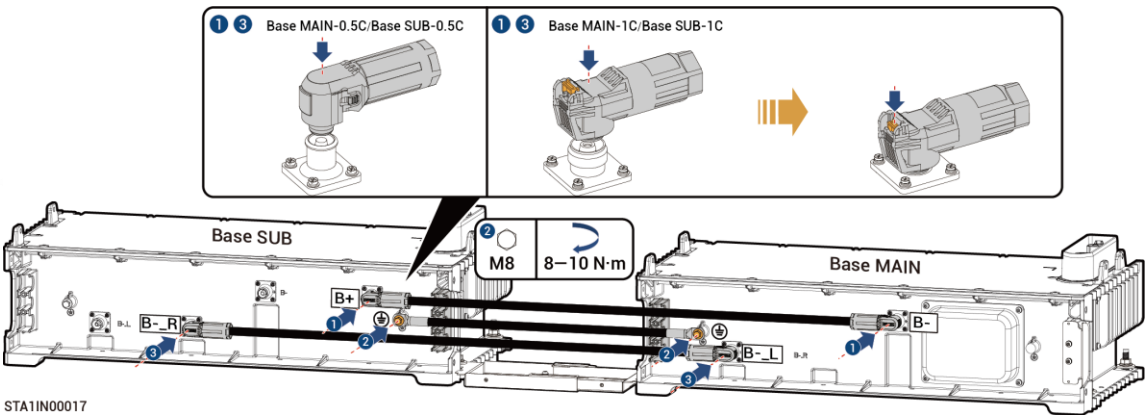
1. Place the base
2. Remove front panel
3. Install side baffle
4. Install connecting plates
5. Connect power and PE cables
6. Connect bus, balance and signal cables
7. Install short cable and plugs
8. Install front panel
9. Install cable protection cover

Connection between Base SUB and Base SUB		Connection between Base SUB and Base MAIN	
Base SUB	Base SUB	Base SUB	Base MAIN
B+_R	B+_L	B+_R	B+_L
BAL_R	BAL_L	BAL_R	BAL_L
COM_R	COM_L	COM_R	COM_L

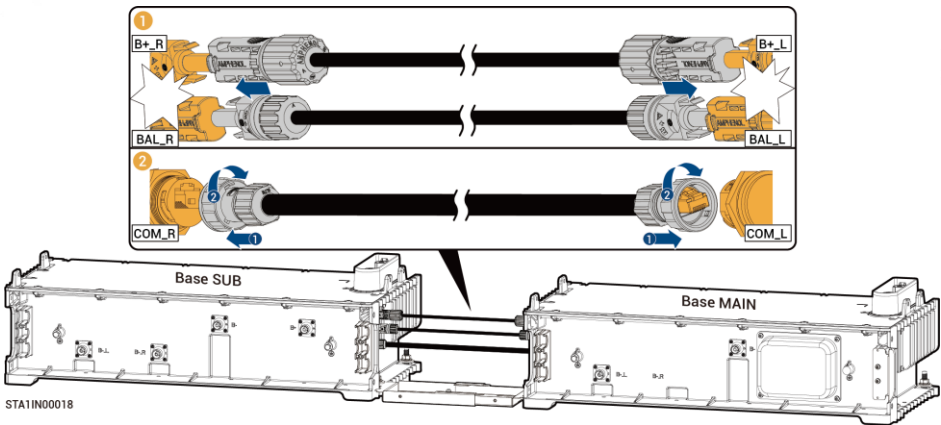


Cable Connection between SUB and Main Bases

Power Cable and PE Cable Connection



Aux. Power Supply, Balancing & Comm. Cables Connection



Connection between Base SUB and Base SUB	
Base SUB	Base SUB
B+	B-
B-_R	B-_L

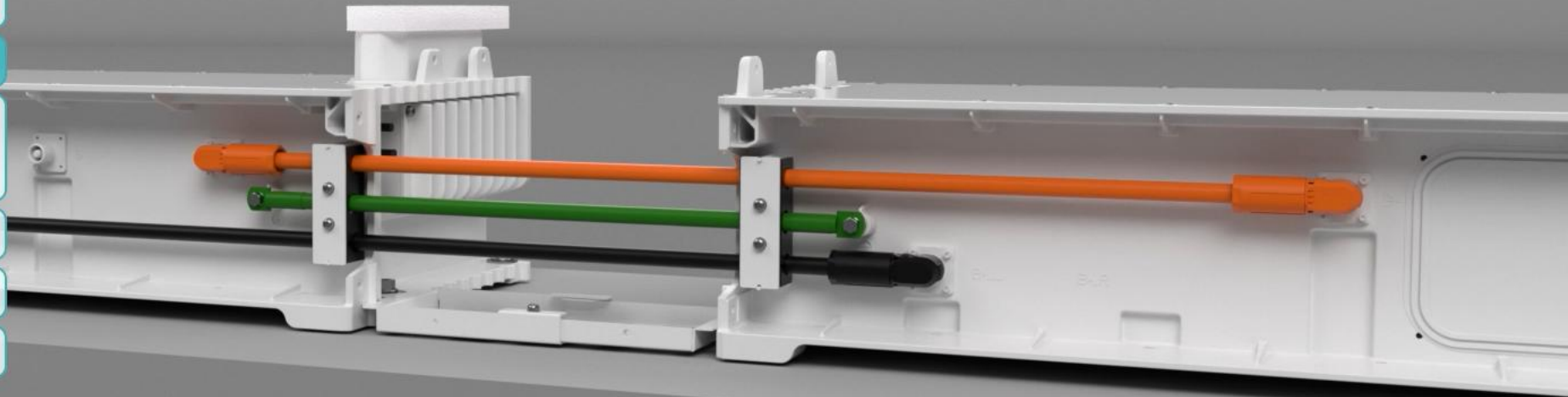
Connection between Base SUB and Base MAIN	
Base SUB	Base MAIN
B+	B-
B-_R	B-_L

Connection between Base SUB and Base SUB	
Base SUB	Base SUB
B+_R	B+_L
BAL_R	BAL_L
COM_R	COM_L

Connection between Base SUB and Base MAIN	
Base SUB	Base MAIN
B+_R	B+_L
BAL_R	BAL_L
COM_R	COM_L

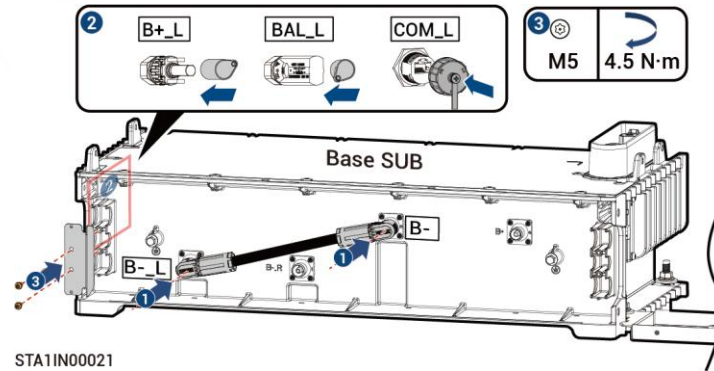
Note: Cables are supplied with the packing box.

1. Place the base
2. Remove front panel
3. Install side baffle
4. Install connecting plates
5. Connect power and PE cables
6. Connect bus, balance and signal cables
7. Install short cable and plugs
8. Install front panel
9. Install cable protection cover



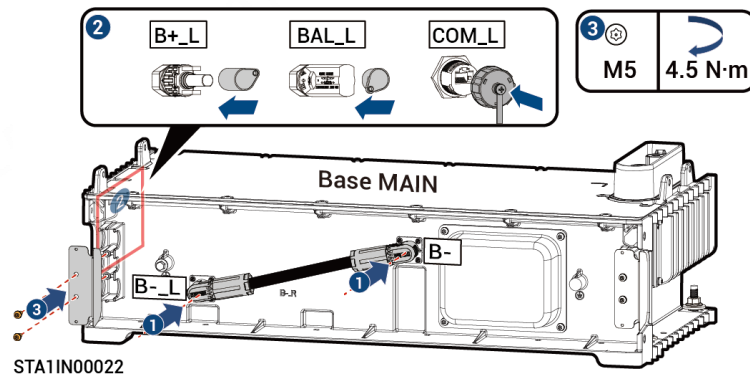
Jumper Cable Connection

Cable Connection for the leftmost SUB base

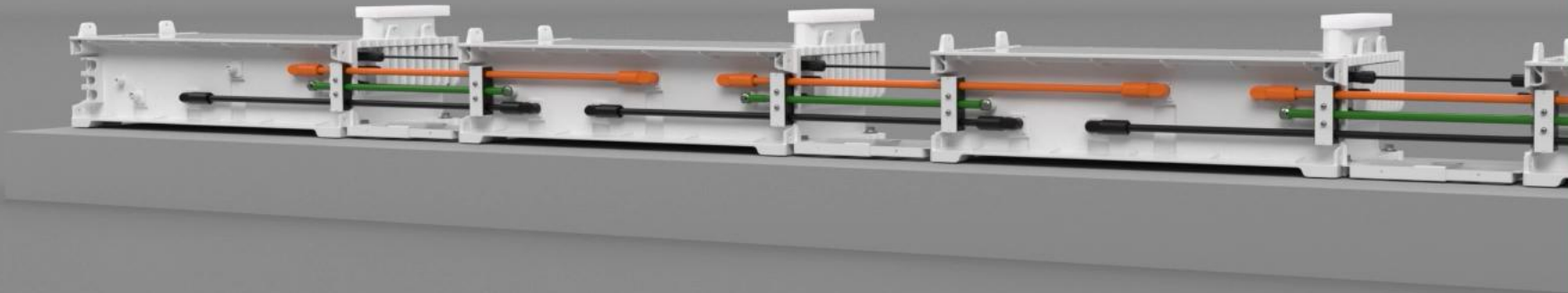


- 1 Please use Jumper Cable to connect B- and B+_L
- 2 Please use terminal plugs to seal B+_L, BAL_L and COM_L

Cable Connection with Only the MAIN Base Used



Note: Cables and terminal plugs are supplied with the packing box.



1. Place the base
2. Remove front panel
3. Install side baffle
4. Install connecting plates
5. Connect power and PE cables
6. Connect bus, balance and signal cables
7. Install short cable and plugs
8. Install front panel
9. Install cable protection cover

0.5C Scenario, System Scale – (96kWh ~ 145kWh)

0.5C Scenario 1 96kWh ~ 145kWh

1



× 1 pcs

SigenStack BC M2-0.5C-BST

2



× 8~12 pcs

SigenStack BAT I2.0

3



× 1 pcs

SigenStack Cover

4



× 1 pcs

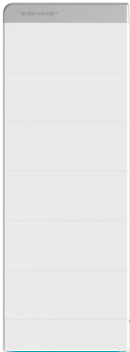
SigenStack Base MAIN-0.5C
(the cables, cable protection covers
and terminal plugs are **included**)

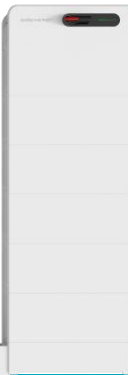
4



× 1 pcs

SigenStack Base SUB-0.5C
(the cables, cable protection covers
and terminal plugs are **included**)





SUB Stack MAIN Stack

Recommended System Configuration

Capacity (kWh)	Packs	Packs of SUB Stack	Packs of MAIN Stack	Cover	Recommended inverters	PV string input voltage
96	8	4	4	1	Sigen PV 50MI-HYA Sigen PV 50MI-HYB	No special requirements
109	9	5	4	1	Sigen PV 50MI-HYA Sigen PV 50MI-HYB	
121	10	5	5	1	Sigen PV 60MI-HYA Sigen PV 60MI-HYB	
133	11	6	5	1	Sigen PV 80MI-HYA Sigen PV 80MI-HYB	
145	12	6	6	1	Sigen PV 80MI-HYA Sigen PV 80MI-HYB	

0.5C Scenario, System Scale – (157kWh ~ 217kWh)

0.5C Scenario 2 157kWh ~ 217kWh

1



× 1 pcs

SigenStack BC M2-0.5C-BST

2



× 13~18 pcs

SigenStack BAT I2.0

3



× 2 pcs

SigenStack Cover

4



× 1 pcs

SigenStack Base MAIN-0.5C
(the cables, cable protection covers and terminal plugs are included)

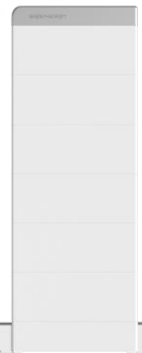
4



× 2 pcs

SigenStack Base SUB-0.5C
(the cables, cable protection covers and terminal plugs are included)







SUB Stack 2 SUB Stack 1 MAIN Stack

Recommended System Configuration

Capacity (kWh)	Packs	Packs of SUB Stack 2	Packs of SUB Stack 1	Packs of MAIN Stack	Cover	Recommended inverters	PV string input voltage
157	13	5	4	4	2	Sigen PV 80M1-HYA Sigen PV 80M1-HYB	No special requirements
169	14	5	5	4	2	Sigen PV 80M1-HYA Sigen PV 80M1-HYB	
181	15	5	5	5	2	Sigen PV 100M1-HYA Sigen PV 100M1-HYB	
193	16	6	5	5	2	Sigen PV 100M1-HYA Sigen PV 100M1-HYB	
205	17	6	6	5	2	Sigen PV 100M1-HYA Sigen PV 100M1-HYB	
217	18	6	6	6	2	Sigen PV 110M1-HYA Sigen PV 110M1-HYB	

0.5C Scenario, System Scale – (229kWh)

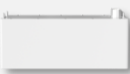
0.5C Scenario 3 229kWh

1

 × 1 pcs

SigenStack BC M2-0.5C-BST

2

 × 19 pcs

SigenStack BAT 12.0

3

 × 3 pcs

SigenStack Cover

4-1*

 × 1 pcs

SigenStack Base 4S-0.5C
(the cables, cable protection covers and terminal plugs are **pre-installed**)

4-2*

 × 1 pcs

SigenStack Base MAIN-0.5C
(the cables, cable protection covers and terminal plugs are **included**)

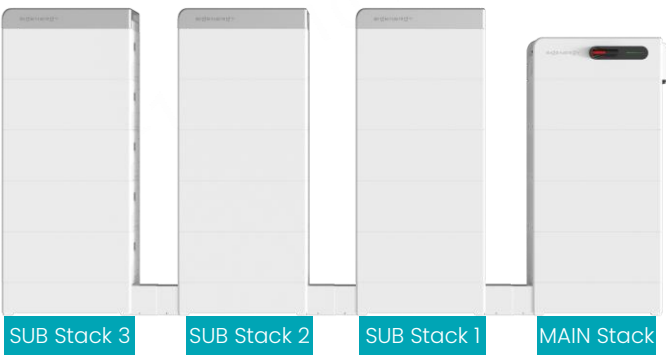
4-2*

 × 3 pcs

SigenStack Base SUB-0.5C
(the cables, cable protection covers and terminal plugs are **included**)

Recommended System Configuration

Capacity (kWh)	Packs	Packs of SUB Stack 3	Packs of SUB Stack 2	Packs of SUB Stack 1	Packs of MAIN Stack	Cover	Recommended inverters	PV string input voltage
229	19	5	5	5	4	3	Sigen PV 110M1-HYA Sigen PV 110M1-HYB	805 V



*Note: Please choose either Option 4-1 or 4-2. Option 4-1 is more suitable for the standard design of large-scale projects, while Option 4-2 is more appropriate for stockpiling in small-scale C&I businesses

0.5C Scenario, System Scale – (241kWh ~ 253kWh)

0.5C Scenario 4 241kWh ~ 253kWh

1



× 1 pcs

SigenStack BC M2-0.5C*

2



× 20/21 pcs

SigenStack BAT 12.0

3



× 3 pcs

SigenStack Cover

4-1**



× 1 pcs

SigenStack Base 4S-0.5C
(the cables, cable protection cover and terminal plugs are pre-installed)

4-2**



× 1 pcs

SigenStack Base MAIN-0.5C
(the cables, cable protection cover and terminal plugs are included)

4-2**



× 3 pcs

SigenStack Base SUB-0.5C
(the cables, cable protection cover and terminal plugs are included)

Recommended System Configuration

Capaci ty (kWh)	Packs	Packs of SUB Stack 3	Packs of SUB Stack 2	Packs of SUB Stack 1	Packs of MAIN Stack	Cover	Recommended inverters	PV string input voltage
241	20	5	5	5	5	3	Sigen PV 125MI-HYA Sigen PV 110MI-HYB	870 V
253	21	6	5	5	5	3	Sigen PV 125MI-HYA Sigen PV 110MI-HYB	935 V



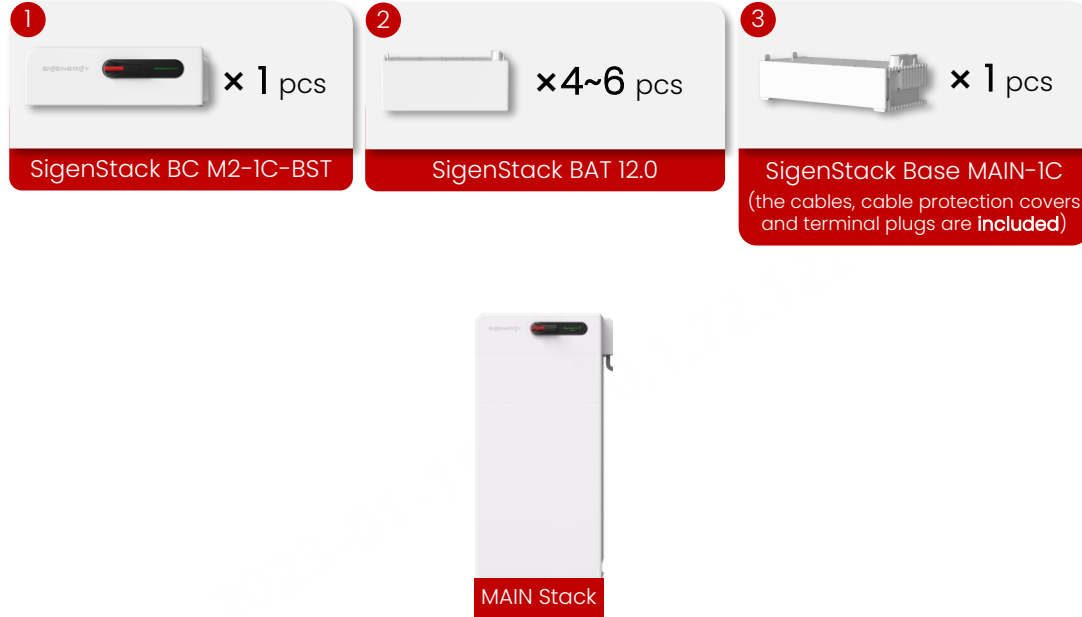
*Note: For on-/off-grid system using with HYB series inverters, Battery controller should always use the model with “BST” (SigenStack BC M2-0.5C-BST)

**Note: Please choose either Option 4-1 or 4-2. Option 4-1 is more suitable for the standard design of large-scale projects, while Option 4-2 is more appropriate for stockpiling in small-scale C&I businesses

1C Scenario, System Scale – (48kWh ~ 72kWh)

1C Scenario 1

48kWh ~ 72kWh



Recommended System Configuration

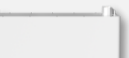
Capacity (kWh)	Packs	Packs of MAIN Stack	Cover	Recommended inverters	PV string input voltage
48	4	4	/	Sigen PV 50MI-HYA Sigen PV 50MI-HYB	No special requirements
60	5	5	/	Sigen PV 60MI-HYA Sigen PV 60MI-HYB	
72	6	6	/	Sigen PV 80MI-HYA Sigen PV 80MI-HYB	

1C Scenario, System Scale – (84kWh ~ 121kWh)

1C Scenario 2

84kWh ~ 121kWh

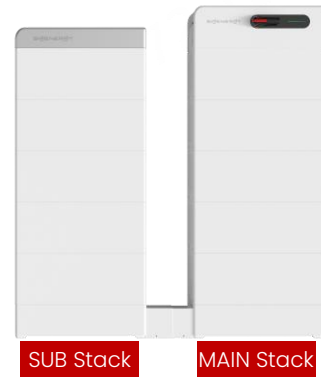
1  × 1 pcs
Sigenergy BC M2-1C-BST

2  × 7~10 pcs
Sigenergy BAT 12.0

3  × 1 pcs
Sigenergy Cover

4  × 1 pcs
Sigenergy Base MAIN-1C
(the cables, cable protection covers and terminal plugs are included)

4  × 1 pcs
Sigenergy Base SUB-1C
(the cables, cable protection covers and terminal plugs are included)

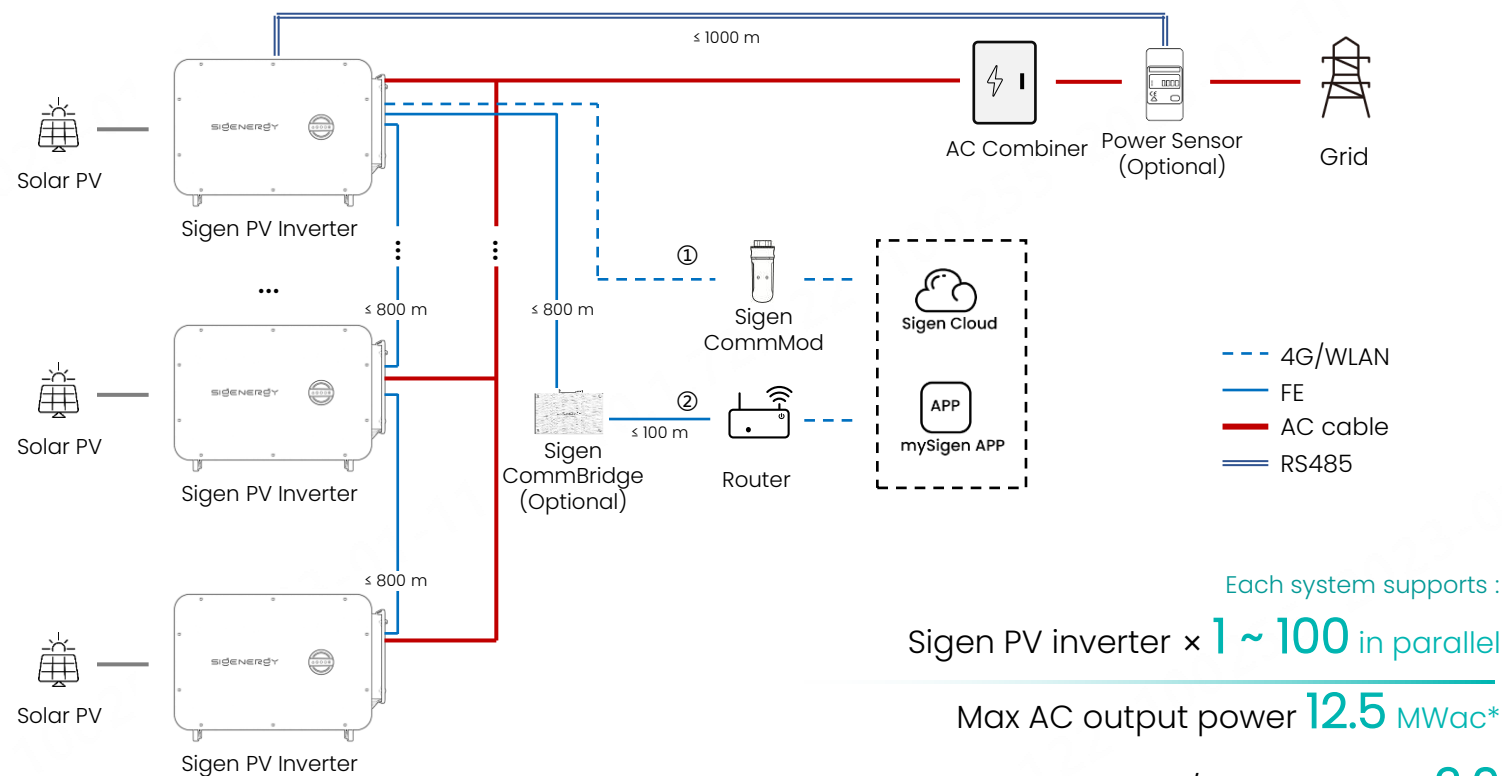


Recommended System Configuration

Capacity (kWh)	Packs	Packs of SUB Stack	Packs of MAIN Stack	Cover	Recommended inverters	PV string input voltage
84	7	4	3	1	Sigen PV 80M1-HYA Sigen PV 80M1-HYB	No special requirements
96	8	4	4	1	Sigen PV 100M1-HYA Sigen PV 100M1-HYB	
109	9	5	4	1	Sigen PV 110M1-HYA Sigen PV 110M1-HYB	
121	10	5	5	1	Sigen PV 125M1-HYA Sigen PV 110M1-HYB	

Sigen PV inverter, large-scale solar PV

Any Sigen PV Inverter can be a master unit – less than or equal to 100 inverters



Each system supports :

Sigen PV inverter $\times$ 1 ~ 100 in parallel

Max AC output power 12.5 MW_{ac}*

DC/AC Ratio up to 2.0

*Take Sigen PV Inverter 125 kW as an example

Communication distance:

RS485 cables ≤ 1000 m

FE cables ≤ 800 m

*For communication with third party devices, FE ≤ 100 m



Sigen PV Inverter

Sigen PV 50/60/80/100/110/125M1



Sigen Communication Bridge

Sigen CommBridge



Sigen Communication Module

Sigen CommMod



Sigen Power Sensor

Sigen Sensor TP-CT100

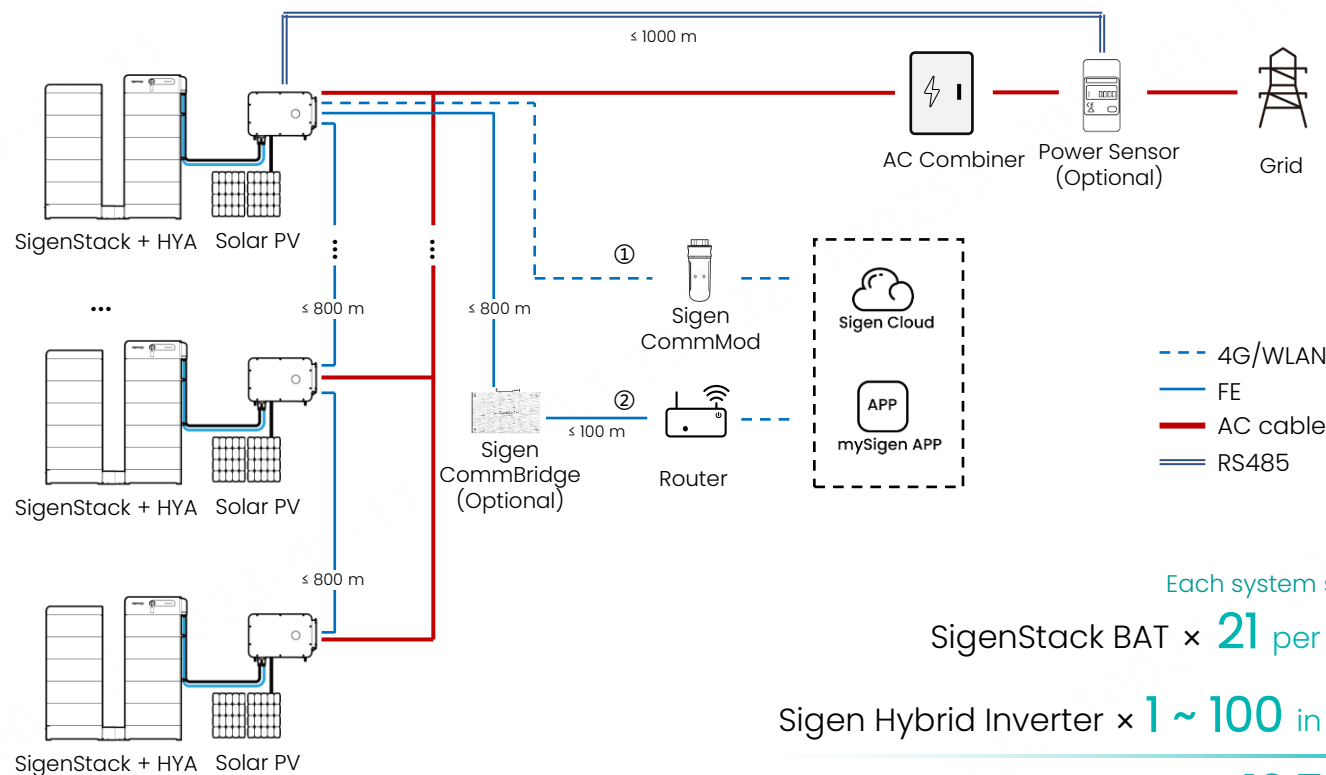
Sigen Sensor TP-CT300

Sigen Sensor TP-CT600

Sigen Sensor TPX-CH

Sigenergy on-grid solution, large-scale PV+BESS

Any Sigen Hybrid Inverter can be a master unit – less than or equal to 100 inverters



Each system supports :

SigenStack BAT × **21** per inverter

Sigen Hybrid Inverter × **1 ~ 100** in parallel

Max AC output power **12.5** MWac*

Max. ESS capacity **25** MWh*

**Take Sigen Hybrid Inverter 125 kW & SigenStack BAT 12.0 as an example*

Communication distance:

RS485 cables ≤ 1000 m

FE cables ≤ 800 m

**For communication with third party devices, FE ≤ 100 m*



Sigen Hybrid Inverter

Sigen PV 50/60/80/100/110/125MI-HYA



SigenStack

SigenStack BC M2-0.5C
SigenStack BC M2-0.5C-BST
SigenStack BC M2-1C-BST
SigenStack BAT 12.0



Sigen Communication Bridge

Sigen CommBridge



Sigen Communication Module

Sigen CommMod

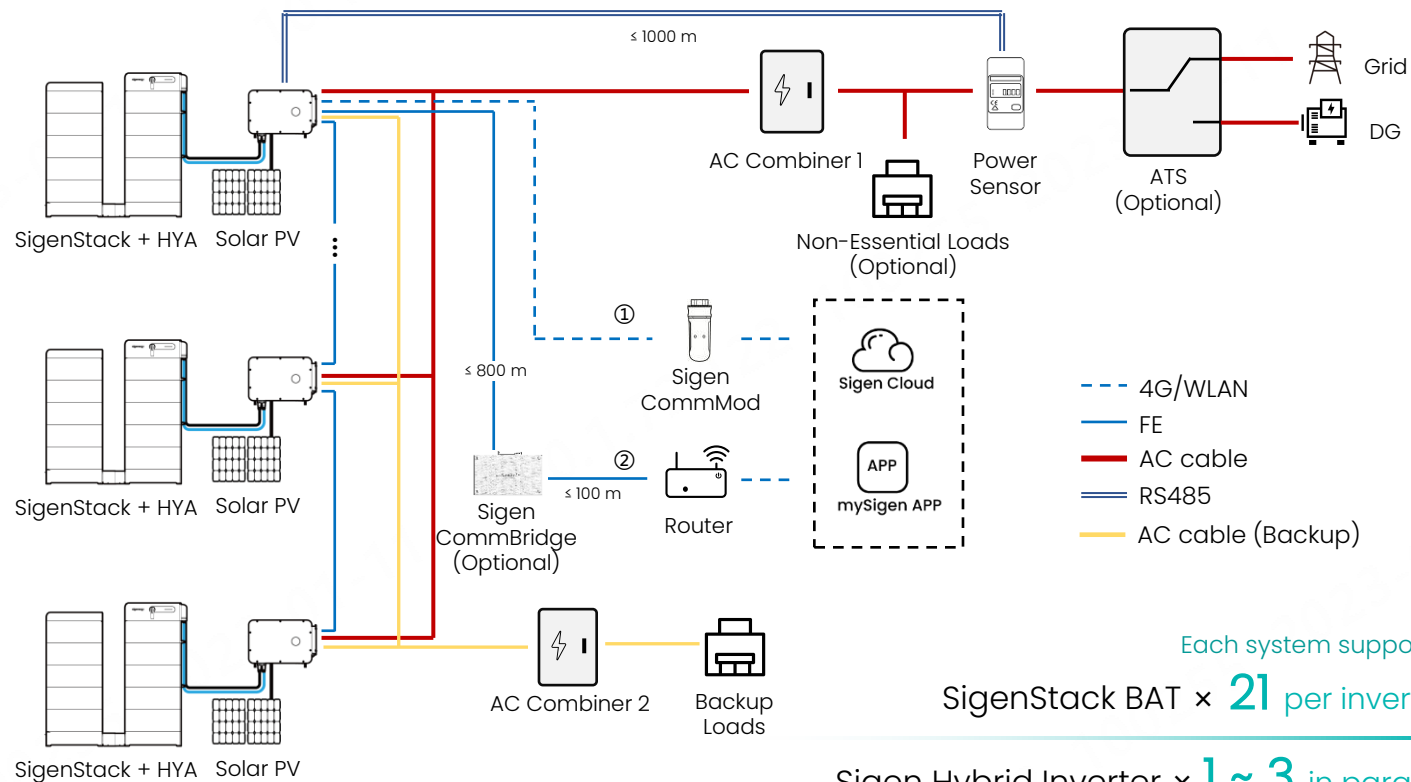


Sigen Power Sensor

Sigen Sensor TP-CT100
Sigen Sensor TP-CT300
Sigen Sensor TP-CT600
Sigen Sensor TPX-CH

Sigenergy Micro-grid solution

Up to 3 units of HYB Inverters can be connected in parallel for fast deployment



Each system supports :

Sigenergy BAT × **21** per inverter

Sigenergy Hybrid Inverter × **1 ~ 3** in parallel

Max AC output power **330** kWac*

Max. ESS capacity **750** kWh*

*Take Sigenergy Hybrid Inverter 110 kW & Sigenergy Stack BAT 12.0 as an example

Communication distance:

RS485 cables ≤ 1000 m

FE cables ≤ 800 m

*For communication with third party devices, FE ≤ 100 m



Sigenergy Hybrid Inverter
Sigenergy PV 50/60/80/100/110M1-HYB



Sigenergy Stack
Sigenergy Stack BC M2-0.5C-BST
Sigenergy Stack BC M2-1C-BST
Sigenergy Stack BAT 12.0



Sigenergy Communication Bridge
Sigenergy CommBridge



Sigenergy Communication Module
Sigenergy CommMod

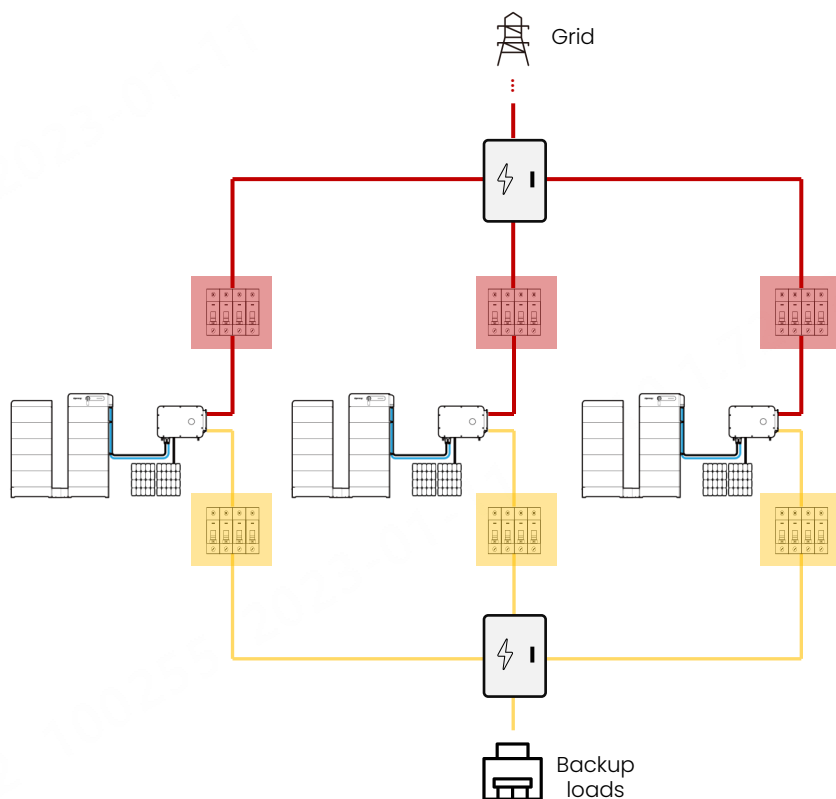


Sigenergy Power Sensor

Sigenergy Sensor TP-CT100
Sigenergy Sensor TP-CT300
Sigenergy Sensor TP-CT600
Sigenergy Sensor TPX-CH

When HYB is configure without gateway

Recommended specifications of Inverter AC cable & AC switch



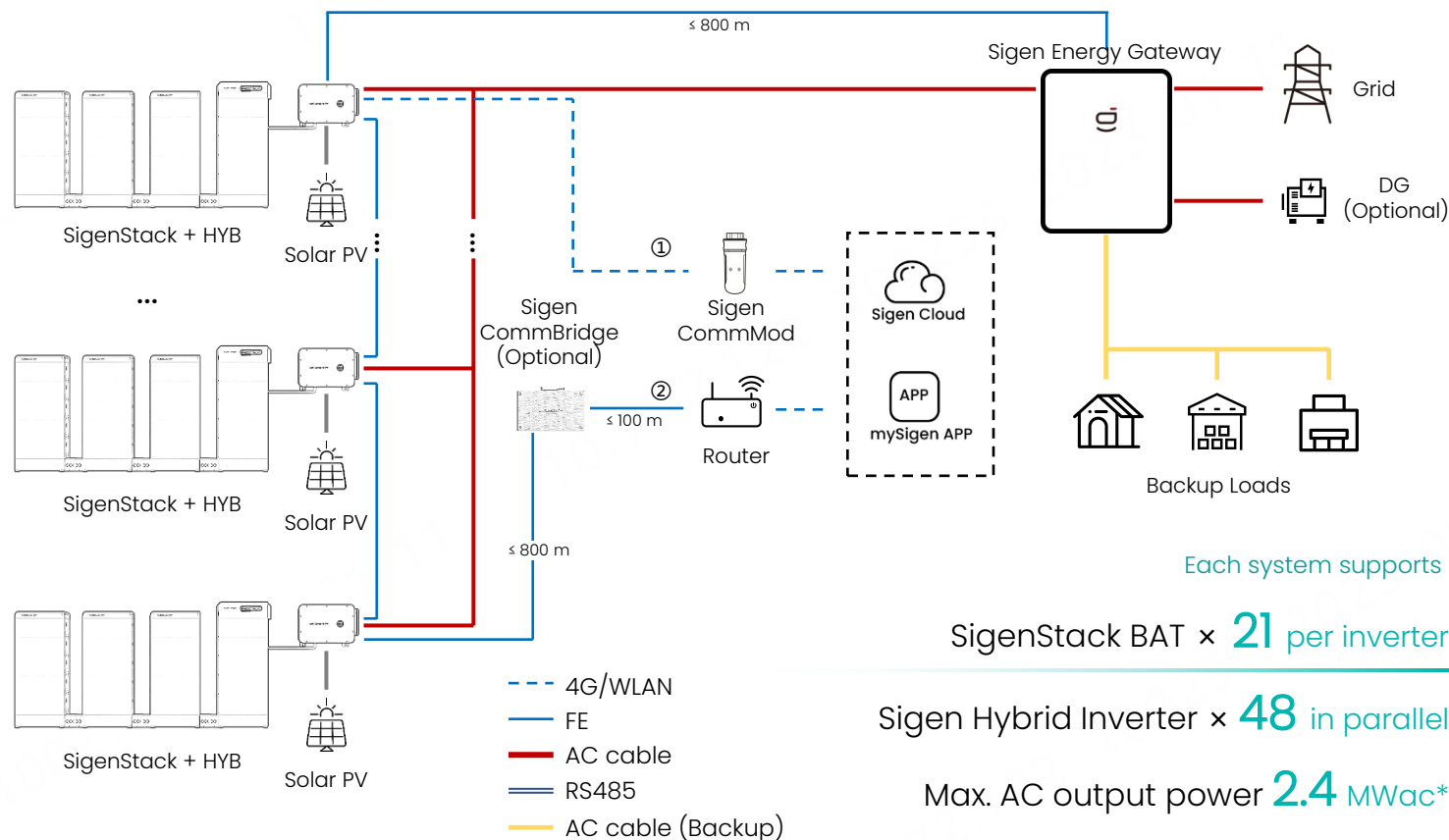
Model	Port Type	Recommended Copper Wire Cross-sectional Area	Recommended Aluminum Wire Cross-sectional Area	Recommended specifications of AC switch
Sigen PV 50MI-HYB	Grid Port	70 mm ²	95 mm ²	200 A
	Load Port	25 mm ²	35 mm ²	100 A
Sigen PV 60MI-HYB	Grid Port	95 mm ²	120 mm ²	250 A
	Load Port	35 mm ²	50 mm ²	125 A
Sigen PV 80MI-HYB	Grid Port	150 mm ²	185 mm ²	315 A
	Load Port	50 mm ²	70 mm ²	160 A
Sigen PV 100MI-HYB	Grid Port	150 mm ²	185 mm ²	315 A
	Load Port	70 mm ²	95 mm ²	200 A
Sigen PV 110MI-HYB	Grid Port	150 mm ²	185 mm ²	315 A
	Load Port	95 mm ²	120 mm ²	250 A

Note:

1. AC switch must have a rated voltage of ≥ 500 V.a.c.
2. The table gives conductor cross-sections for 380/400V operation. For 480V, please refer to the Installation guide.

Sigenergy Micro-grid solution, expand with gateway

More than 3 units of HYB Inverters can be connected into gateway for MW-level system



Communication distance:

RS485 cables ≤ 1000 m

FE cables ≤ 800 m

*For communication with third party devices, FE ≤ 100 m

Each system supports :

SigenStack BAT $\times 21$ per inverter

Sigen Hybrid Inverter $\times 48$ in parallel

Max. AC output power 2.4 MW_{ac}*

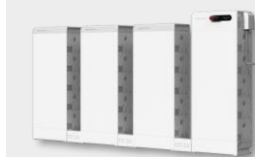
Max. ESS capacity 12.0 MWh*

*Take Sigen Hybrid Inverter 50 kW & SigenStack BAT 12.0 & Sigen Gateway C2400-B series as an example



Sigen Hybrid Inverter

Sigen PV 50/60/80/100/110M1-HYB



SigenStack

SigenStack BC M2-0.5C-BST
SigenStack BC M2-1C-BST
SigenStack BAT 12.0



Sigen Communication Bridge

Sigen CommBridge



Sigen Communication Module

Sigen CommMod



Sigen Energy Gateway

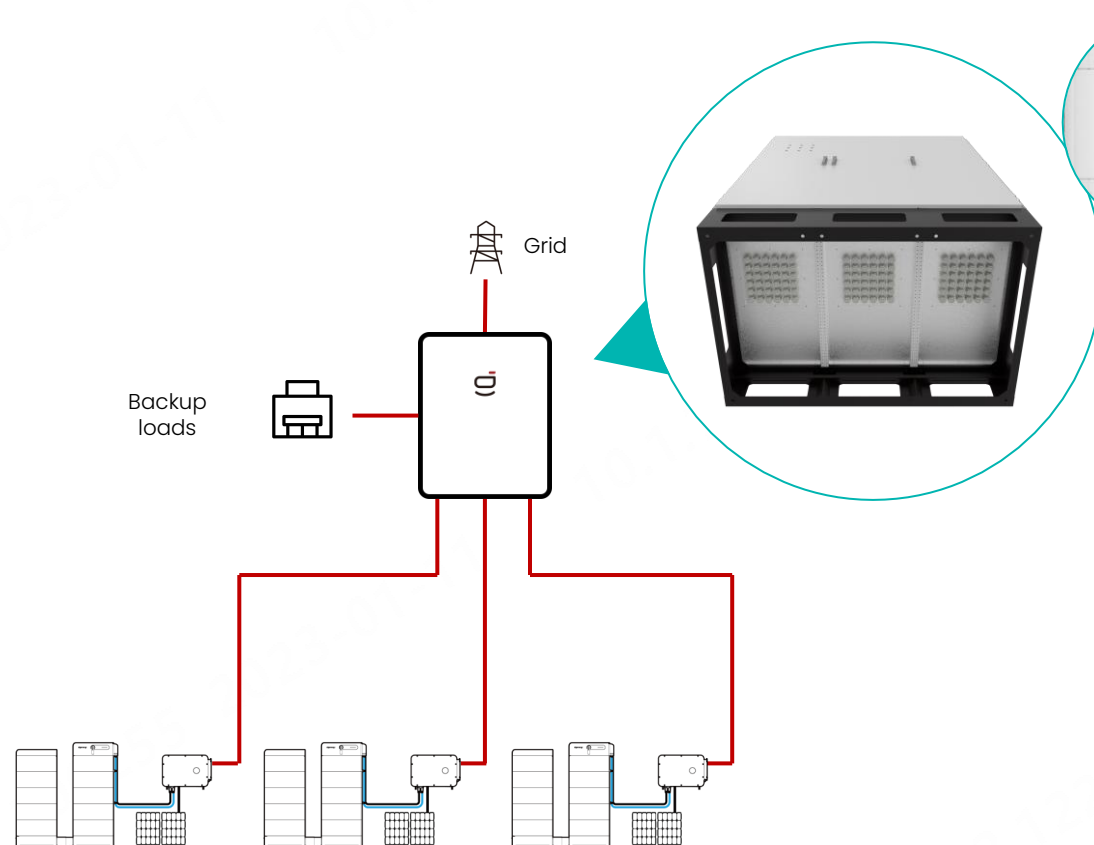
Sigen Gateway C600/1200-B



Sigen Gateway C1600/2000/2400-B series

When HYB is configure with gateway

Recommended specifications of Inverter AC cable



The internal MCCB limits the cable OD

The cable gland at the bottom limits the cable OD

Model	Port Type	Recommended Copper Wire Cross-sectional Area	Recommended Aluminum Wire Cross-sectional Area
Sigen PV 50MI-HYB	Grid Port	25 mm ²	35 mm ²
Sigen PV 60MI-HYB		35 mm ²	50 mm ²
Sigen PV 80MI-HYB		50 mm ²	70 mm ²
Sigen PV 100MI-HYB		70 mm ²	95 mm ²
Sigen PV 110MI-HYB		95 mm ²	—

Sigen Power Sensor, accurate power control

Sigen Power Sensor for C&I Scenario

	Product model	Number of CT 	Max. operating current of CT	Supported Inverter Configurations			
				Product	Max. output current of inverter (A)	Max. No. in parallel (pcs)	Total current (A)
	Sigen Sensor TP-CT100	3	100 A	Sigen PV/Hybrid Inverter 50 kW	83.6	1	83.6
				Sigen PV/Hybrid Inverter 60 kW	100.3	1	100.3
	Sigen Sensor TP-CT300	3	300 A	Sigen PV/Hybrid Inverter 50 kW	83.6	3	250.8
				Sigen PV/Hybrid Inverter 60 kW	100.3	2	200.6
				Sigen PV/Hybrid Inverter 80 kW	133.7	2	267.4
				Sigen PV/Hybrid Inverter 100 kW	167.1	1	167.1
				Sigen PV/Hybrid Inverter 110 kW	183.8	1	183.8
				Sigen PV/Hybrid Inverter 125 kW	208.9	1	208.9
	Sigen Sensor TP-CT600	3	600 A	Sigen PV/Hybrid Inverter 50 kW	83.6	7	585.2
				Sigen PV/Hybrid Inverter 60 kW	100.3	5	501.5
				Sigen PV/Hybrid Inverter 80 kW	133.7	4	534.8
				Sigen PV/Hybrid Inverter 100 kW	167.1	3	501.3
				Sigen PV/Hybrid Inverter 110 kW	183.8	3	551.4
				Sigen PV/Hybrid Inverter 125 kW	208.9	2	417.8
	Sigen Sensor TPX-CH	-	-	If the max. output of the inverters in parallel is higher 600A, only Sigen Sensor TPX-CH can be supported. Customers need to purchase CTs (XXX A/5 A) with a minimum precision of 0.5s.			

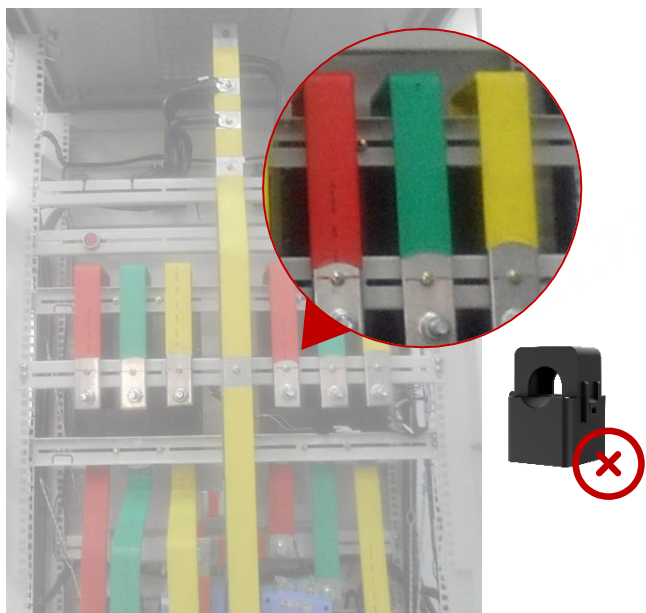
Power sensor selection recommendation:

The max. operation current of CT must **be higher than** the max. output current of the inverters in parallel.

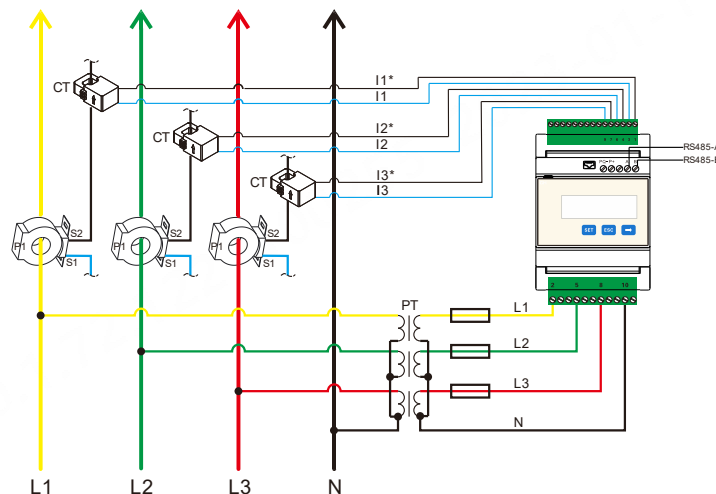


New Sigen Power Sensor for C&I: Sigen Sensor TP-CT5

Oversized busbar causes CT installation difficulty



If metering meter is pre-installed >>



Current specification	5A/2mA
Number of CT	3 pcs
Communication	RS485
Installation method	DIN Rail 35 mm

- Metering function: measurement for forward and reverse active energy
- Measuring function: measurement for voltage, current, frequency, power, power factor, etc
- Display function: LCD, key-press display
- Communication function: RS485, support Modbus-RTU
- Refresh rate: active power refresh rate about 50-100ms

Recommended Data allowance

Sigen CommMod for C&I Scenario



Sigen CommMod

Europe version 30 MB per month, for 2 years

Albania	Czech Rep	Hungary	Luxembourg	Poland	Switzerland
Andorra	Denmark	Iceland	Macedonia	Portugal	Turkey
Austria	Estonia	Ireland	Malta	Romania	UK
Belgium	Finland	Italy	Moldova	Serbia	Ukraine
Bosnia and Herzegovina	France	Kosovo	Monaco	Slovakia	
Bulgaria	Germany	Latvia	Montenegro	Slovenia	More countries will be supported in the future...
Croatia	Greece	Liechtenstein	Netherlands	Spain	
Cyprus	Guernsey	Lithuania	Norway	Sweden	

Sigen CommMod GL

Global version 30 MB per month, for 2 years

Australia	Indonesia	Vietnam	South Africa	...
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More countries will be supported in the future...

Sigen CommMod NS

No SIM card version

Users purchase local SIM cards by themselves

(need to confirm with Sigenergy in advance whether the telecom carrier card is supported)

Data usage per system

No	Scenario	INV Capacity (kW)	BAT Capacity (kWh)	Data usage (MB/Month)
1	PV only (Sigen PV 125MI)	125	0	25
2	PV+ESS (1*Sigen PV 125MI-HYA & 21*SigenStack BAT 12.0)	125	253	125

Example

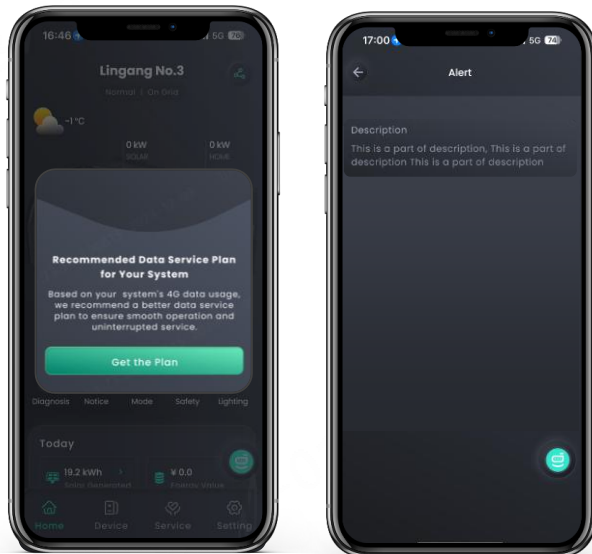
No. In Parallel (Pcs)	Total INV Capacity (kW)	Total BAT Capacity (kWh)	Total Data usage (MB/Month)
10	1250	0	250
20	2500	0	500
10	1250	2530	1250
20	2500	5060	2500

Note:

- The Sigen CommMod (4G/3G/2G) can be ordered from Sigenergy based on the requirement of communication method from customers. (For better data transferring, Fast ethernet is recommended for its reliable and fast communication.)
- If the total data usage of the system is high than 30MB/Month, you can purchase data recharge plan and top up through MySigen App.

How to top-up your data plan

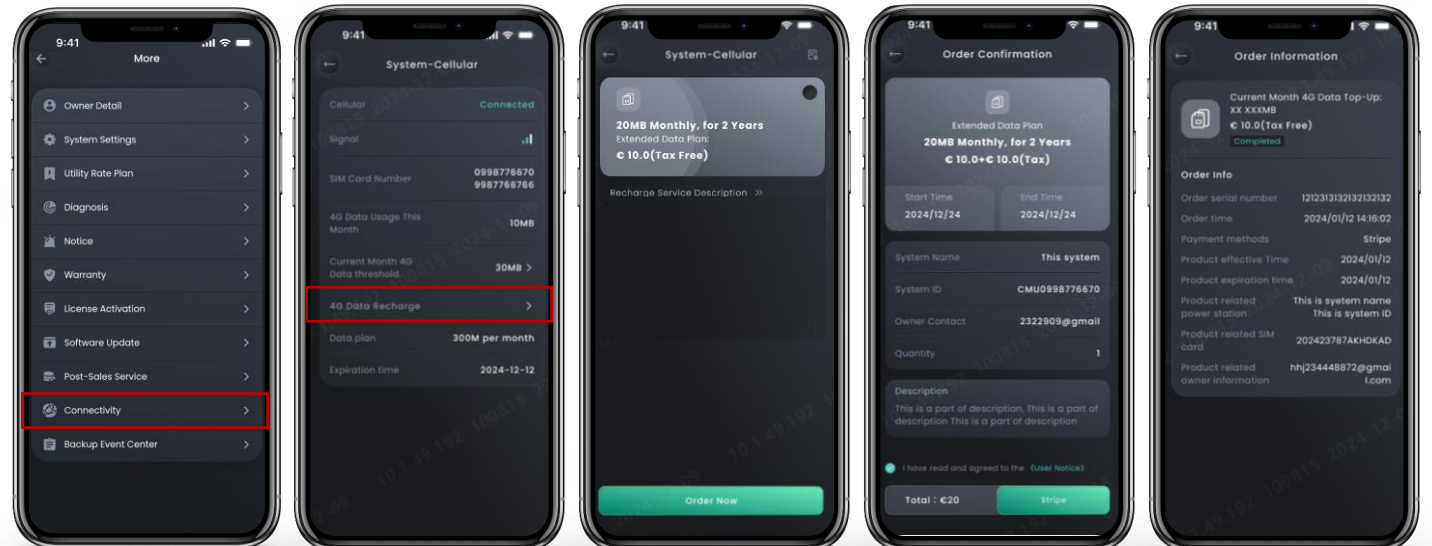
Top-up reminder



After commissioning

When data is running out or when two years are about to expire

Top-up process



The top-up interface can be found by both installer accounts and end-user accounts

Users can only see and purchase recommended data plan

Jump to Stripe to pay

Activate within 10 minutes

Data recharge plan: Sigen CommMod 50/100/200/300/500/1000MB Data

C&I Products in Action Globally Addressing Every Challenge



 **Farm**

Max. self consumption
100 kW + 217 kWh

 **Fruit Warehouse**

Rooftop scenario
100 kW + 300 kWh

 **Utility PV+BESS**

Quick installation
10 MW + 20 MWh

 **Steel Factory**

Narrow space
400 kW + 1 MWh

 **Machin Factory**

On/off-grid switch
220 kW + 168 kWh

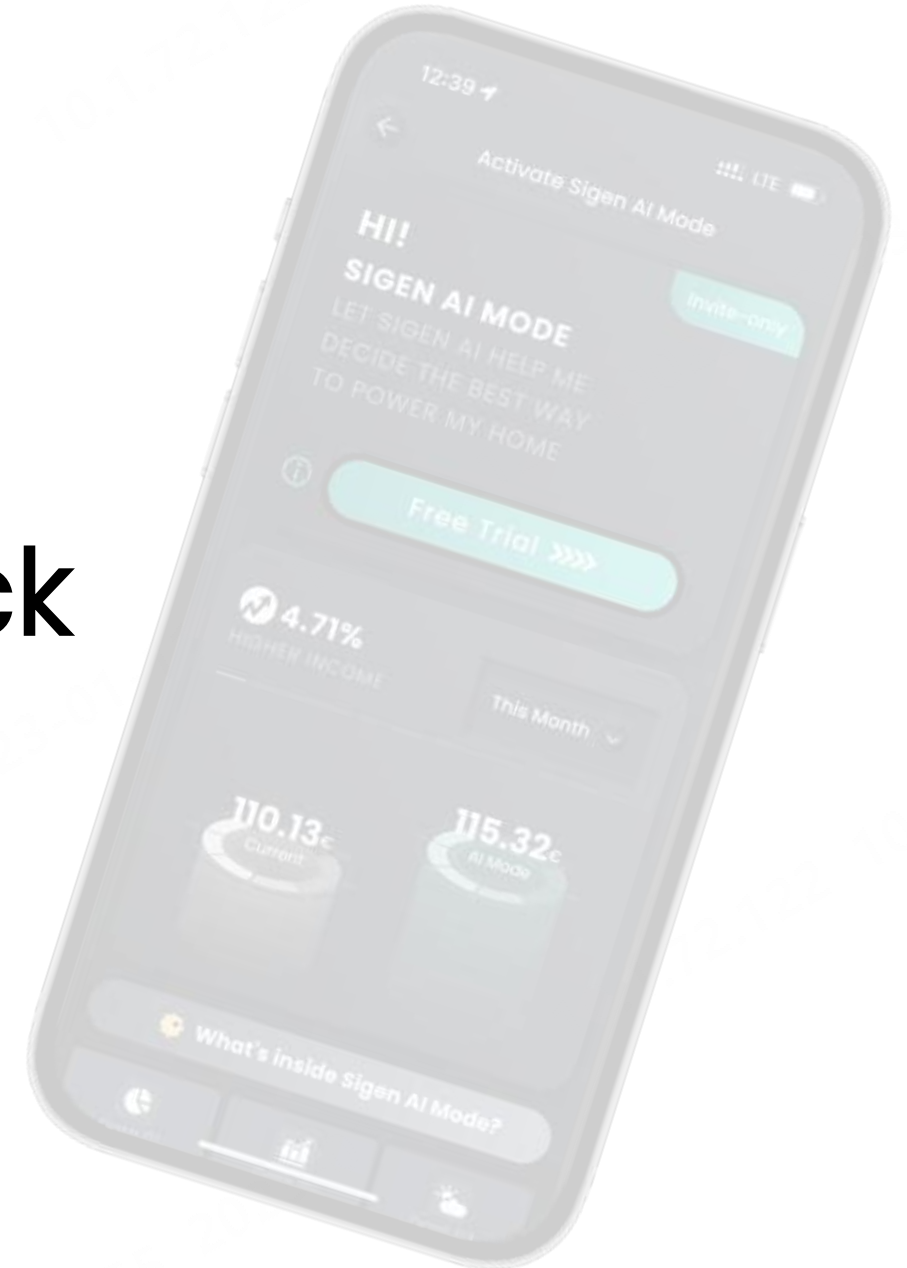


Micro-Grid C&I Solution



SIGENERGY

Micro-Grid C&I Solution with HYB and SigenStack



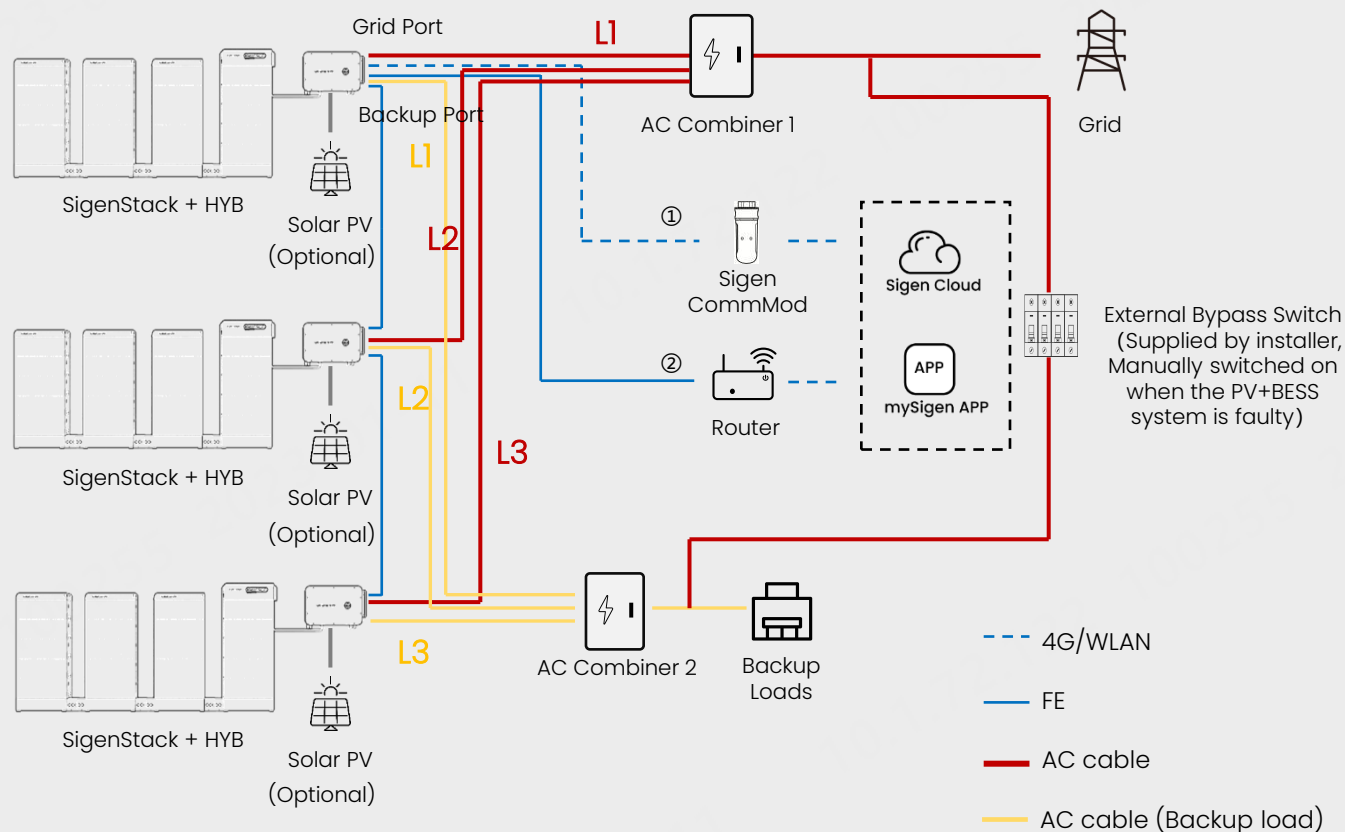
On/Off-Grid system

Without gateway

Without diesel generator

Whole backup scenario

Maximum 3 units HYB in parallel



Boundary condition

1. Unstable grid, **whole backup scenario**.
2. Optional for PV panel, DC Coupling
3. For whole backup scenario, no power sensor is needed since the inverter has the zero-export limitation function.
4. 4-21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
5. Maximum 3 units Sigen PV 50~110 MI-HYB in parallel.
6. The total length of AC cable from **AC combiner 1 (Grid)** to **INV to AC combiner 2 (Load)** for each inverter is recommended to be the **same**:
 $L1 + L1 = L2 + L2 = L3 + L3$ * (Please pay attention to Note)
7. AC combiner boxes (1&2) are supplied by installer.
8. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios**.

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 MI-HYB × **1 ~ 3** in parallel

Max AC output power **330** kWac*

Max. ESS capacity **759** kWh*

**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*

Note: * The cable selection (conduct size) of **L1, L1, L2, L2, L3, L3** should be the same, otherwise, the **L1=L2=L3** and **L1=L2=L3**

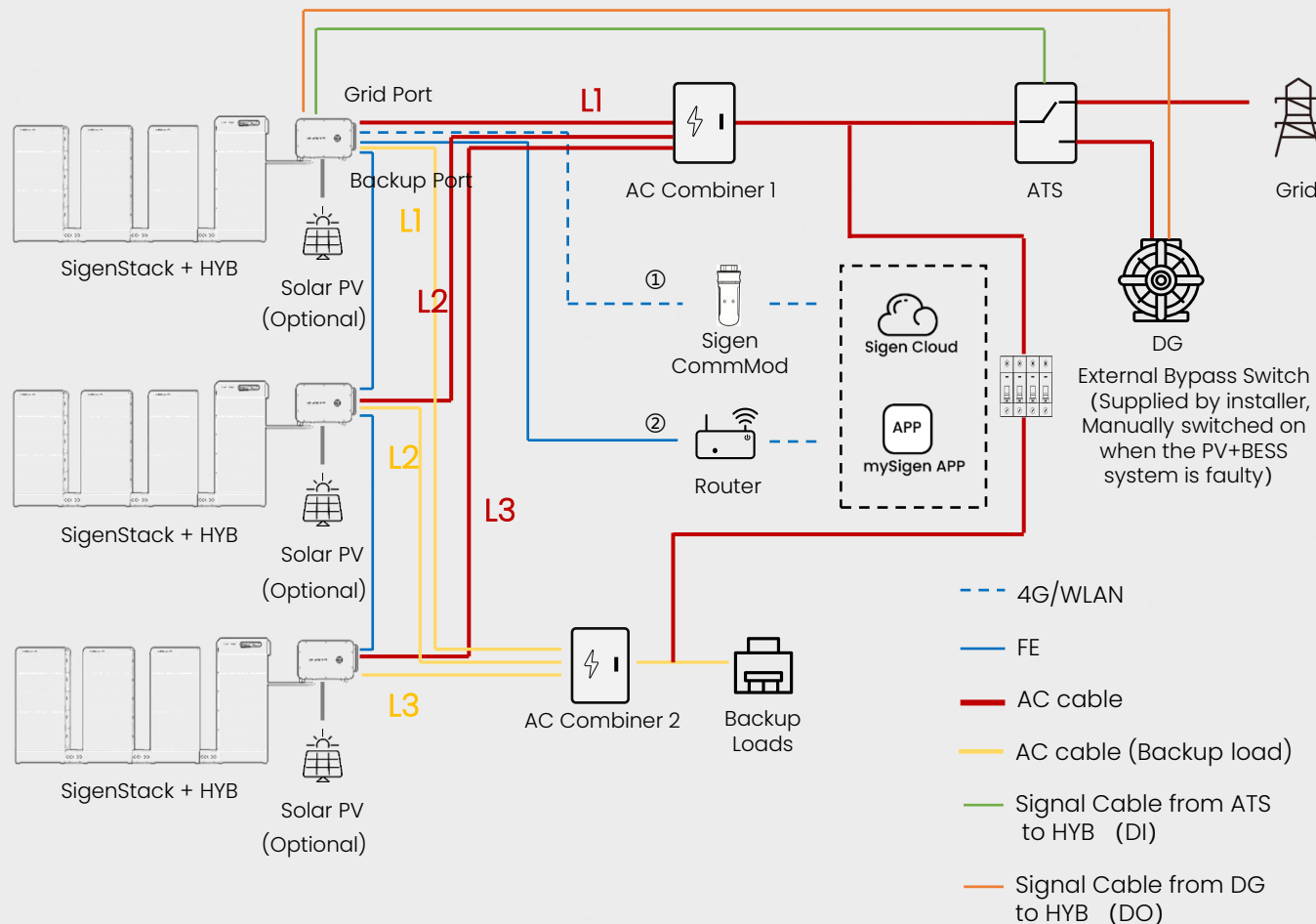
On/Off-Grid system

Without gateway

With diesel generator

Whole backup scenario

Maximum 3 units HYB in parallel



Boundary condition

1. Unstable grid, **whole backup scenario**.
2. Optional for PV panel, DC Coupling, no power sensor
3. 4-21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
4. Maximum 3 units Sigen PV 50~110 MI-HYB in parallel.
5. The total length of AC cable from **AC combiner 1 (Grid)** to **INV** to **AC combiner 2 (Load)** for each inverter is recommended to be the **same**.
 $L1 + L1 = L2 + L2 = L3 + L3^*$ (Please pay attention to Note)
6. AC combiner boxes (1&2) are supplied by installer.
7. Diesel Generator is connected at the grid port, the ATS is needed (Supplied by installer). The signal cable from ATS and DG need to be connected to the DI and DO of inverter to realize "Two-wire Start".
8. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios**.

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 MI-HYB × **1 ~ 3** in parallel

Max AC output power **330** kWac*

Max. ESS capacity **759** kWh*

**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*

Note: * The cable selection (conduct size) of **L1, L1, L2, L2, L3, L3** should be the same, otherwise, the **L1=L2=L3** and **L1=L2=L3**

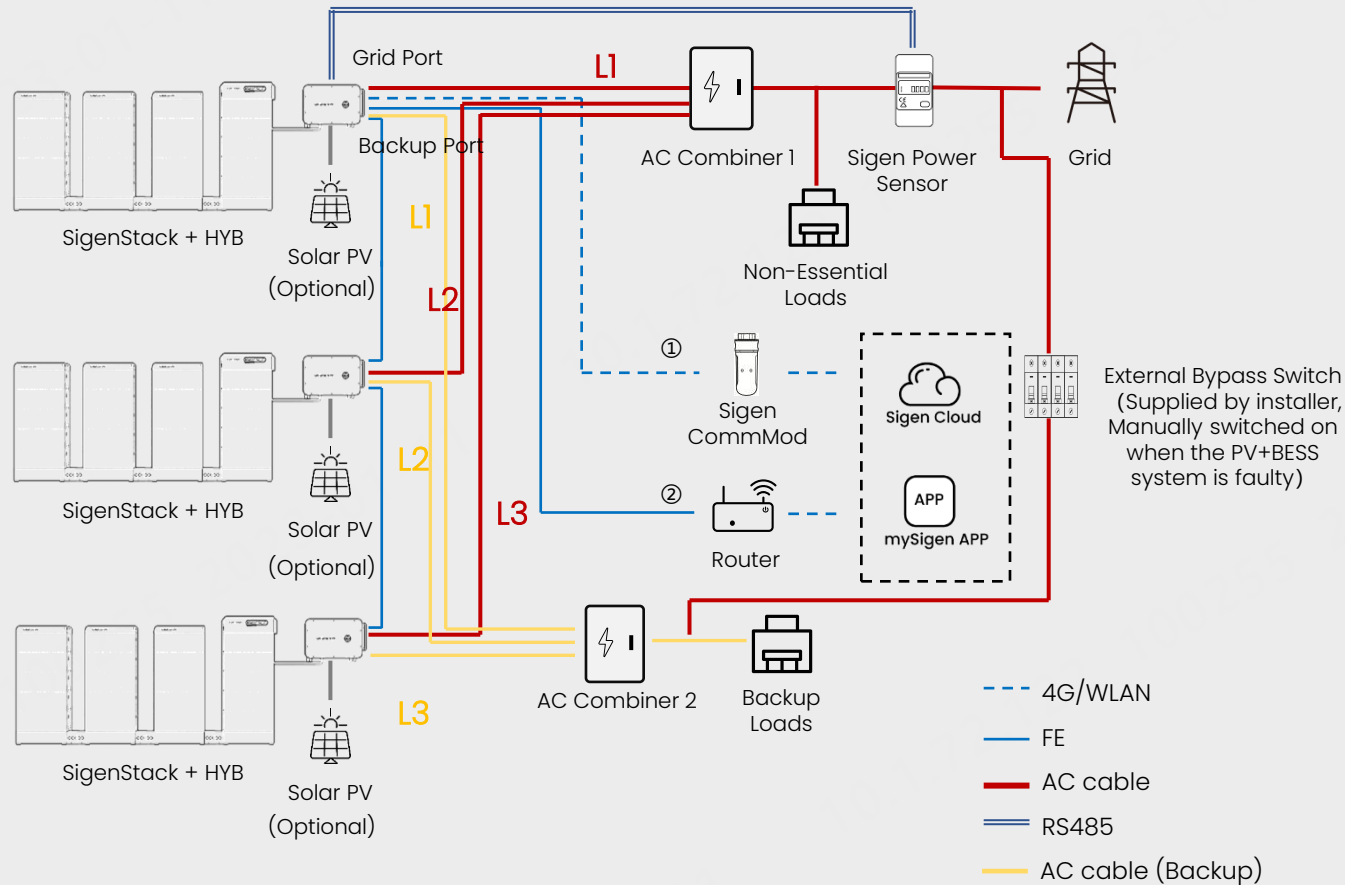
On/Off-Grid system

Without gateway

Without diesel generator

Partial backup scenario

Maximum 3 units HYB in parallel



Boundary condition

1. Unstable grid, **partial backup scenario**.
2. Optional for PV panel, DC Coupling.
3. Sigen Power Sensor is used for power control at the grid connection point for zero-export limitation.
4. 4-21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
5. Maximum 3 units Sigen PV 50~110 MI-HYB in parallel.
6. The total length of AC cable from **AC combiner 1 (Grid) to INV to AC combiner 2 (Load)** for each inverter is recommended to be the **same**. $L1 + L1 = L2 + L2 = L3 + L3^*$ **(Please pay attention to Note)**
7. AC combiner boxes (1&2) are supplied by installer.
8. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios**.

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 MI-HYB × **1 ~ 3** in parallel

Max AC output power **330** kWac*

Max. ESS capacity **759** kWh*

**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*

Note: * The cable selection (conduct size) of **L1, L1, L2, L2, L3, L3** should be the same, otherwise, the $L1=L2=L3$ and $L1=L2=L3$

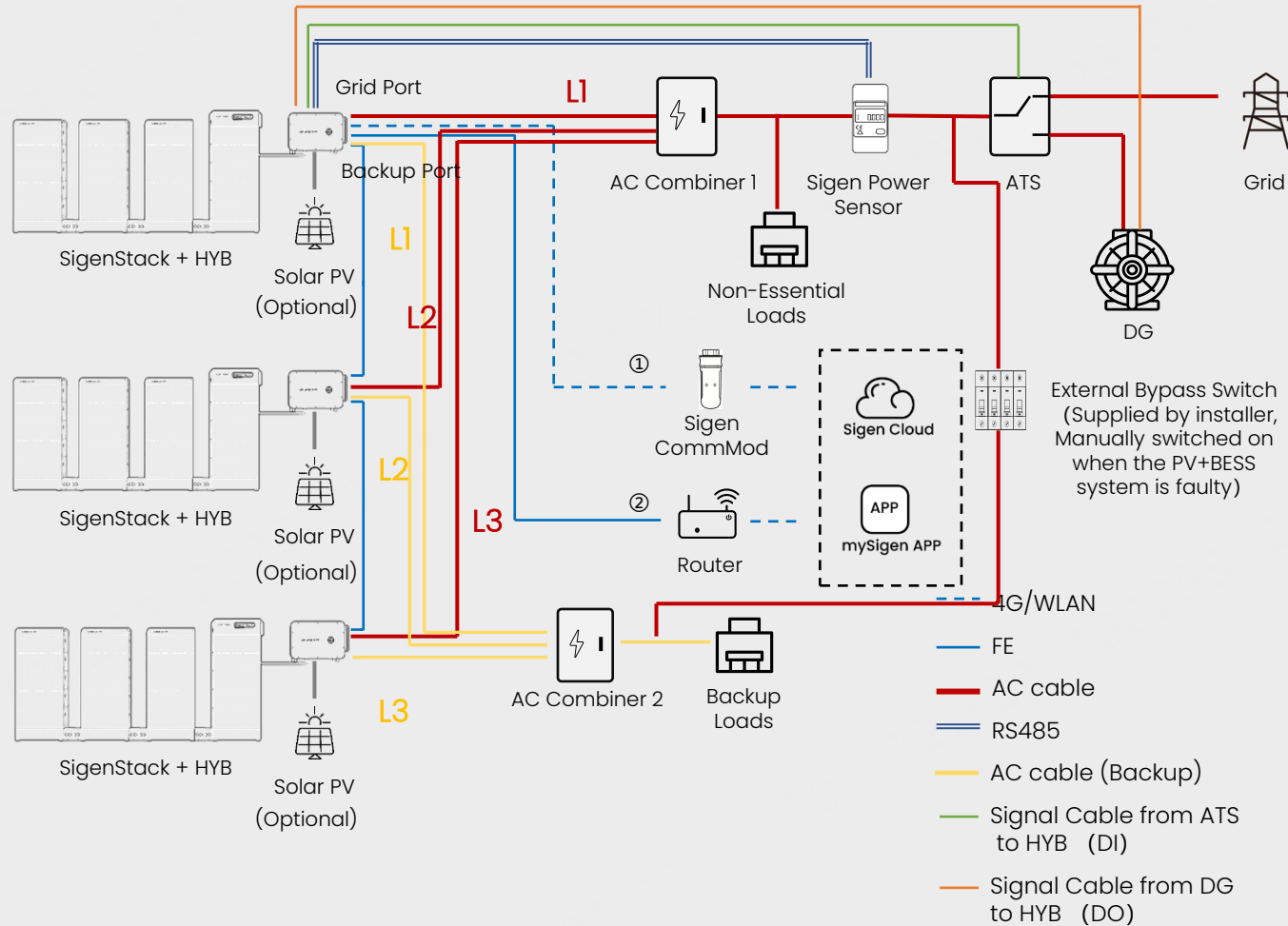
On/Off-Grid system

Without gateway

With diesel generator

Partial backup scenario

Maximum 3 units HYB in parallel



Boundary condition

1. Unstable grid, **partial backup scenario**.
2. Optional for PV panel, DC Coupling, SigGen Power Sensor needed
3. 4-21 units SigGenStack BAT 12.0 are connected in series to one HYB inverter, only SigGenStack BC M2-0.5C-BST/1C-BST is used.
4. Maximum 3 units SigGen PV 50~110 M1-HYB in parallel.
5. The total length of AC cable from **AC combiner 1 (Grid) to INV to AC combiner 2 (Load)** for each inverter is recommended to be the **same**. **$L1+L1=L2+L2=L3+L3^*$** (Please pay attention to Note)
6. AC combiner boxes (1&2) are supplied by installer.
7. Diesel Generator is connected at the grid port, the ATS is needed (Supplied by installer). The signal cable from ATS and DG need to be connected to the DI and DO of inverter to realize "Two-wire Start".
8. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios**.

Each system supports:

SigenStack BAT × **21** per inverter

Sigen PV 50~110 M1-HYB × **1 ~ 3** in parallel

Max AC output power **330** kWac*

Max. ESS capacity **759** kWh*

*Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example

Note: * The cable selection (conduct size) of L1, L1, L2, L2, L3, L3 should be the same, otherwise, the L1=L2=L3 and L1=L2=L3

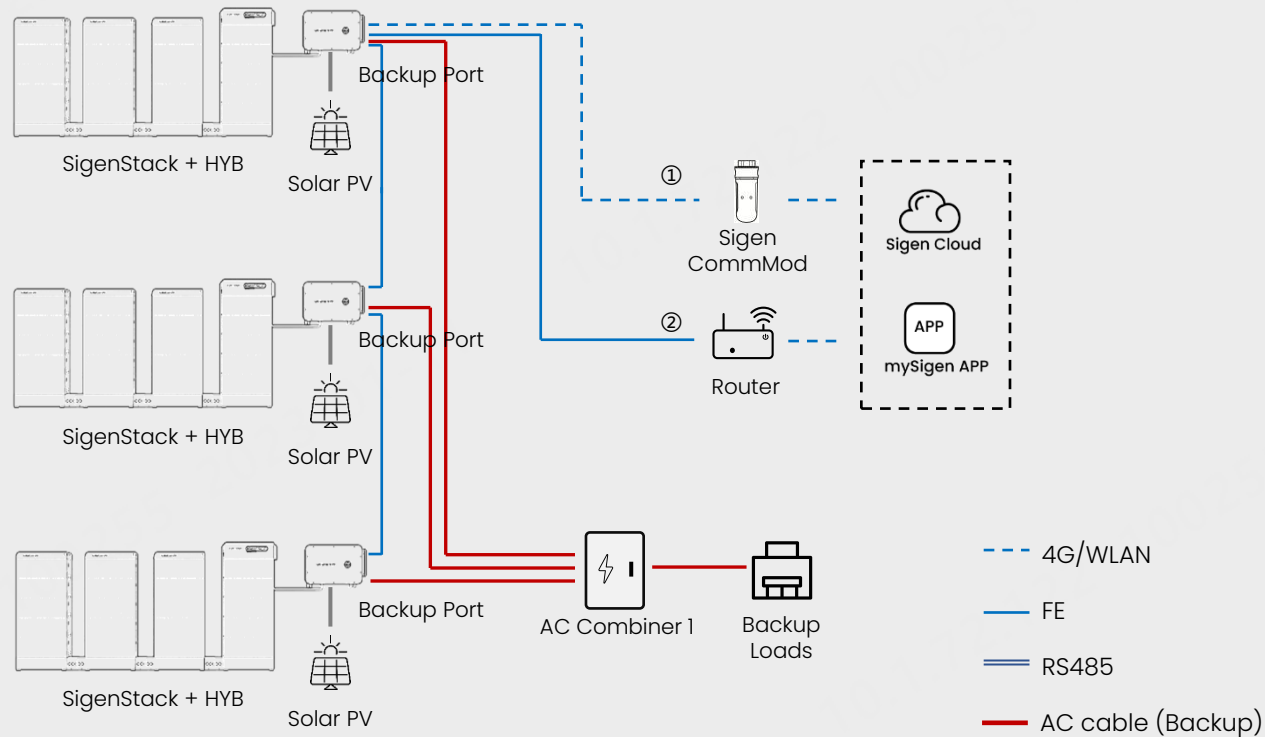
Pure off-grid system

Without gateway

Without diesel generator

Whole backup scenario

Maximum 3 units HYB in parallel



Boundary condition

1. No Grid, **whole backup scenario**.
2. PV panel should be enough for load, DC Coupling
3. 4-21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
4. Maximum 3 units Sigen PV 50~110 MI-HYB in parallel.
5. AC combiner (2) is supplied by installer.
6. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios.**

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 MI-HYB × **1 ~ 3** in parallel

Max AC output power **330** kWac*

Max. ESS capacity **759** kWh*

**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*

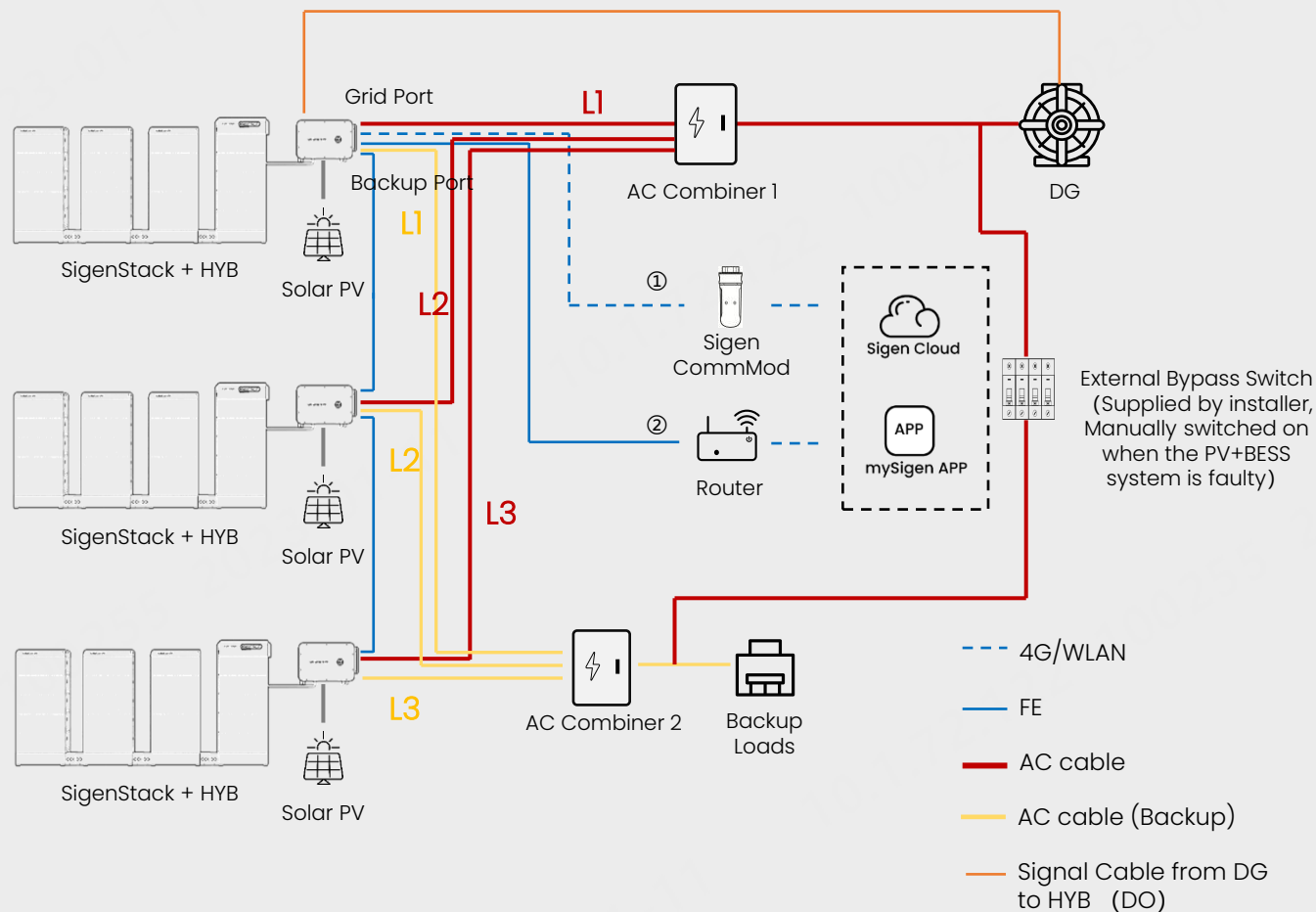
Pure off-grid system

Without gateway

With diesel generator

Whole backup scenario

Maximum 3 units HYB in parallel



Boundary condition

1. No Grid, **whole backup scenario**.
2. PV panel should be enough for load, DC Coupling
3. No power sensor is needed since the inverter has the zero-export limitation function.
4. 4~21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
5. Maximum 3 units Sigen PV 50~110 MI-HYB in parallel.
6. The total length of AC cable from **AC combiner 1 (Grid) to INV to AC combiner 2 (Load)** for each inverter is recommended to be **same**. $L1+L1=L2+L2=L3+L3$ * (Please pay attention to Note)
7. AC combiner boxes (1&2) are supplied by installer.
8. Diesel Generator is optional and can be connected at the grid point. The signal cable from DG need to be connected to the DO of inverter.
9. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios**.

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 MI-HYB × **1 ~ 3** in parallel

Max AC output power **330** kWac*

Max. ESS capacity **759** kWh*

**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*

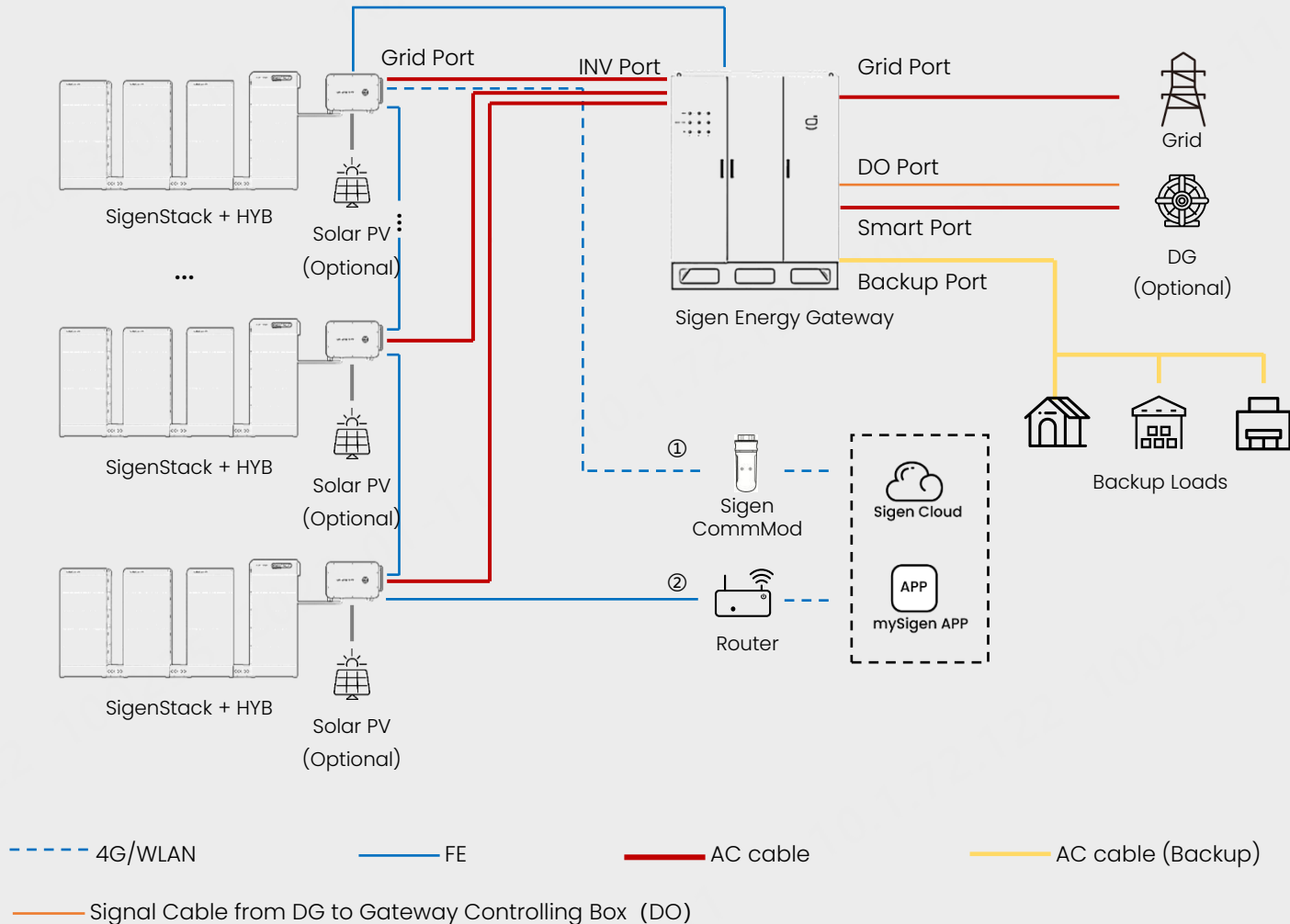
Note: * The cable selection (conduct size) of **L1, L1, L2, L2, L3, L3** should be the same, otherwise, the **L1=L2=L3** and **L1=L2=L3**

On/Off-Grid system

With gateway

With diesel generator

Whole backup scenario



Boundary condition

1. Unstable grid, **whole backup scenario**.
2. Optional for PV panel, DC Coupling.
3. No power sensor is needed since the gateway has the zero-export limitation function.
4. 4-21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
5. the number of HYB is depended on the capacity of gateway; Maximum 48 units of 50kW HYB for Gateway C2400-B.
6. If more than 3* HYB are needed, the Sigen Energy Gateway C600/C1200/C1600/C2000/C2400-B will be needed to support more HYB in parallel.
7. Diesel Generator is optional and can be connected at the smart port. The signal cable from DG need to be connected to the DO of Gateway to realize "Two-wire Start" function on the APP.
8. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios**.

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 M1-HYB × **24~48** in parallel

Sigen Gateway C600/C1200/C1600/C2000/C2400-B × **1**

Max AC output power **2,400** kWac*

Max. ESS capacity **12,144** kWh*

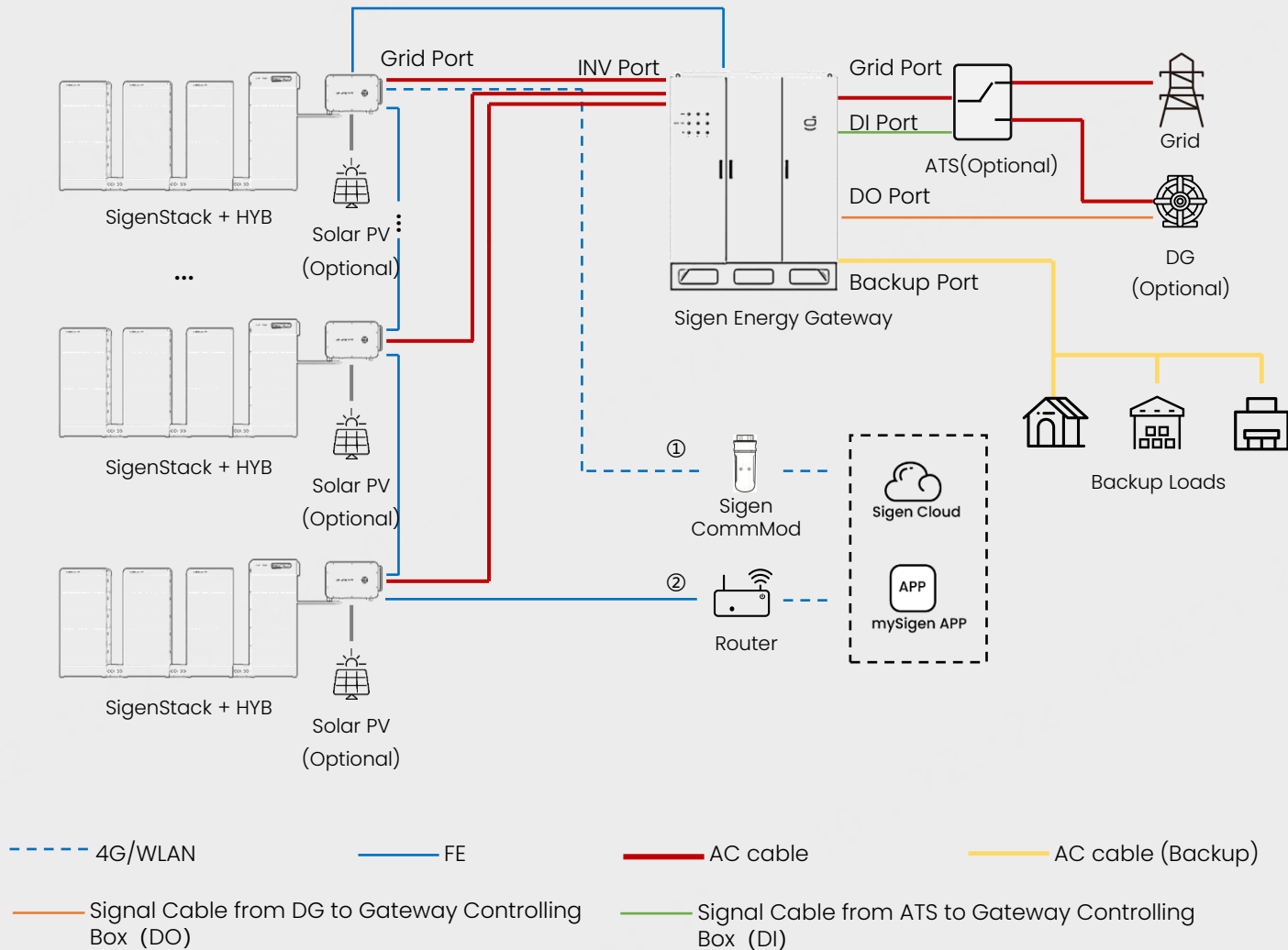
**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*

On/Off-Grid system

With gateway

With diesel generator

Whole backup scenario



Boundary condition

1. Unstable grid, **whole backup scenario**.
2. Optional for PV panel, DC Coupling, no need for the Sigen Power Sensor for zero-export limitation.
3. 4-21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
4. The number of HYB is depended on the capacity of gateway; Maximum 48 units of 50kW HYB for Gateway C2400-B.
5. If more than 3* HYB are needed, the Sigen Energy Gateway C600/C1200/C1600/C2000/C2400-B will be needed to support more HYB in parallel.
6. Diesel Generator is optional and can be connected at the grid point, the ATS is needed (Supplied by installer). The signal cable from ATS and DG need to be connected to the DI and DO of Gateway to realize "Two-wire Start" function on the APP.
7. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios**.

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 M1-HYB × **24~48** in parallel

Sigen Gateway C600/C1200/C1600/C2000/C2400-B × **1**

Max AC output power **2,400** kWac*

Max. ESS capacity **12,144** kWh*

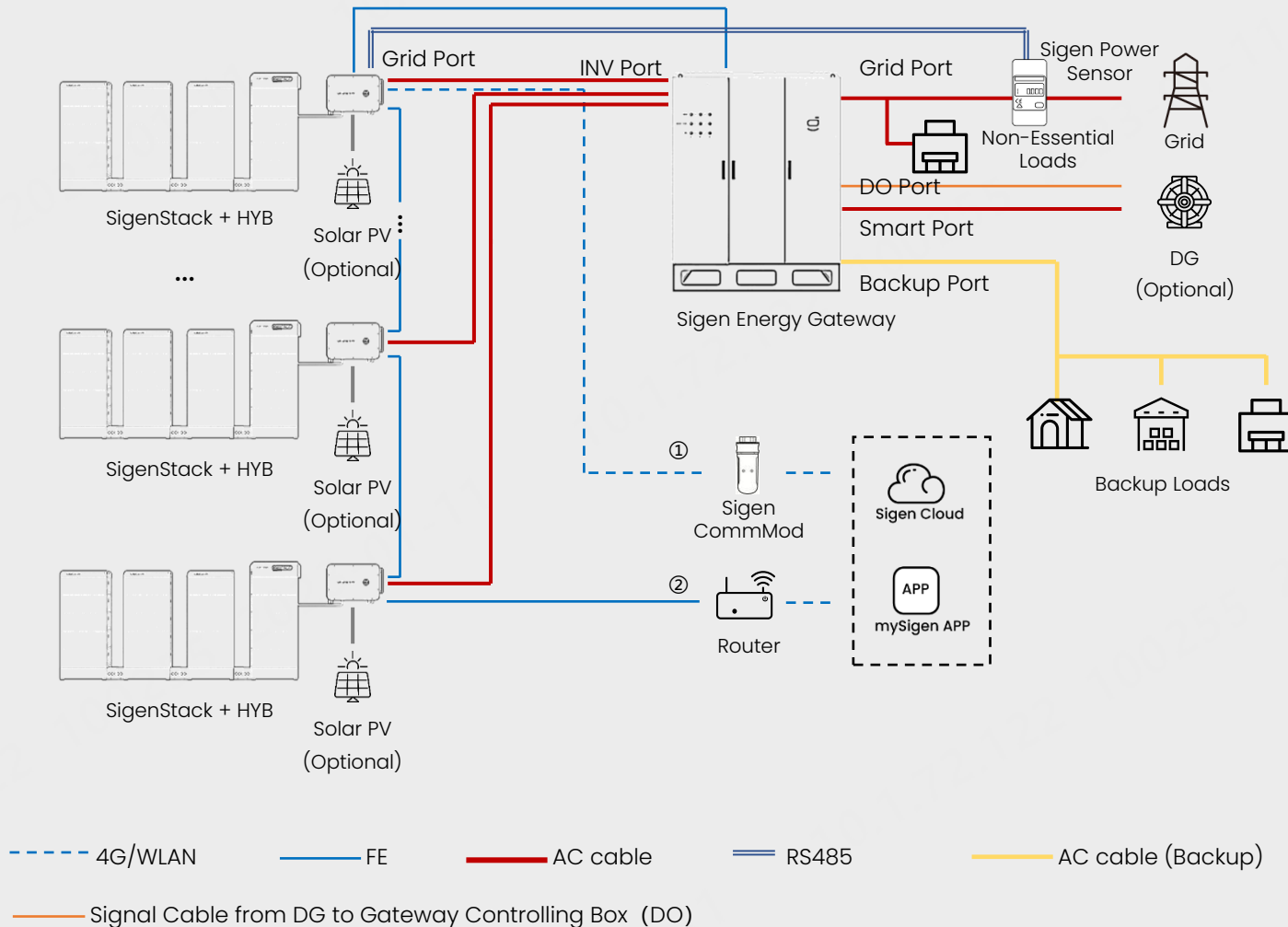
**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*

On/Off-Grid system

With gateway

With diesel generator

Partial backup scenario



Boundary condition

1. Unstable grid, **partial backup scenario**.
2. Optional for PV panel, DC Coupling.
3. Sigen Power Sensor is used for zero-export limitation.
4. 4~21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
5. The number of HYB is depended on the capacity of gateway; Maximum 48 units of 50kW HYB for Gateway C2400-B.
6. If more than 3* HYB are needed, the Sigen Energy Gateway C600/C1200/C1600/C2000/C2400-B will be needed to support more HYB in parallel.
7. Diesel Generator is optional and can be connected at the smart port. The signal cable from DG need to be connected to the DO of Gateway to realize "Two-wire Start" function on the APP.
8. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios**.

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 M1-HYB × **24~48** in parallel

Sigen Gateway C600/C1200/C1600/C2000/C2400-B × **1**

Max AC output power **2,400** kWac*

Max. ESS capacity **12,144** kWh*

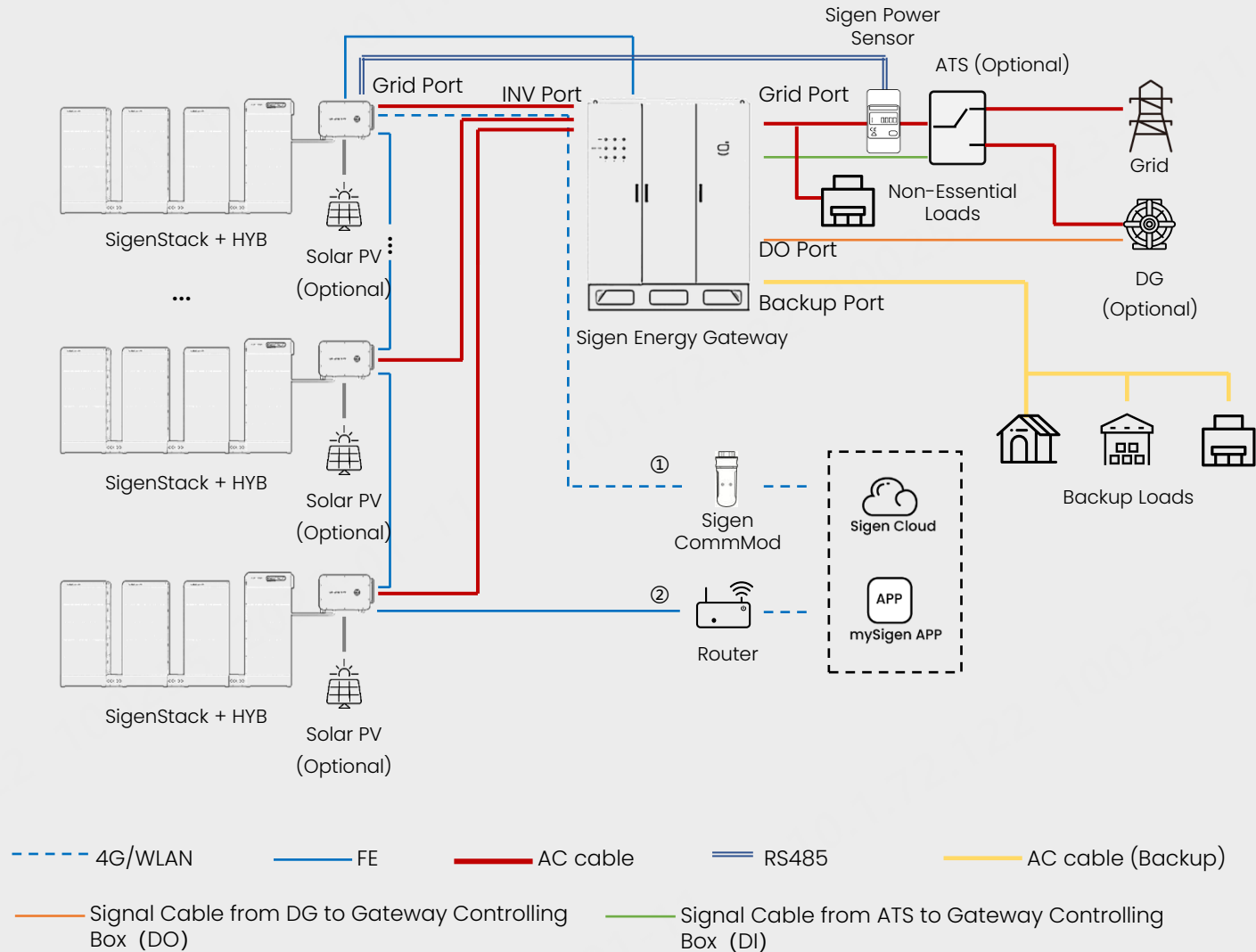
**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*

On/Off-Grid system

With gateway

With diesel
generator

Partial backup
scenario



Boundary condition

1. Unstable grid, **partial backup scenario**.
2. Optional for PV panel, DC Coupling.
3. Sigen Power Sensor is used for zero-export limitation.
4. 4~21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
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8. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios**.

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 M1-HYB × **24~48** in parallel

Sigen Gateway C600/C1200/C1600/C2000/C2400-B × **1**

Max AC output power **2,400** kWac*

Max. ESS capacity **12,144** kWh*

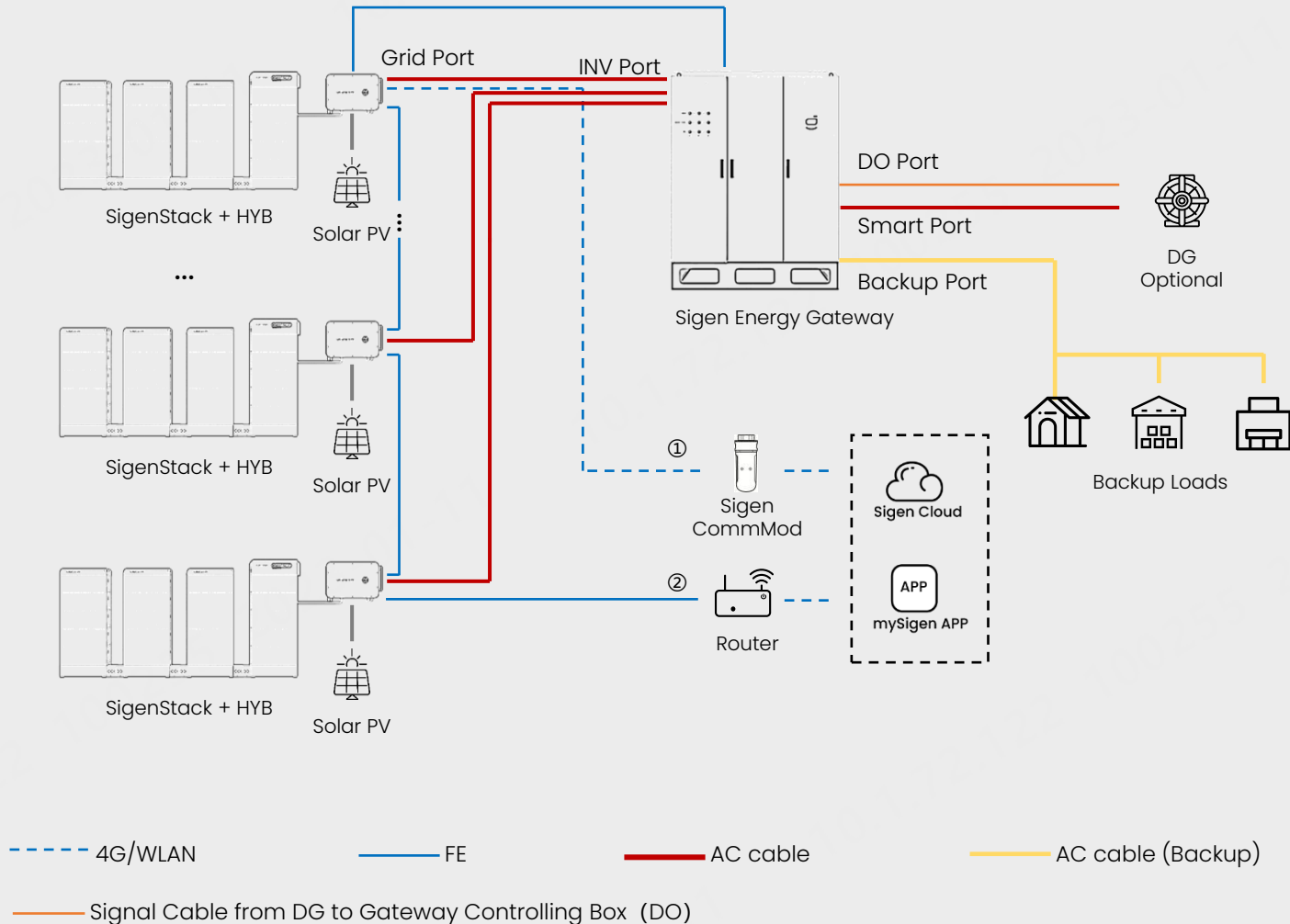
**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*

Pure off-grid system

With gateway

With diesel generator

Whole backup scenario



Boundary condition

1. No Grid, whole backup scenario.
2. PV panel should be enough for load, DC Coupling, no need for the Sigen Power Sensor for zero-export limitation.
3. 4~21 units SigenStack BAT 12.0 are connected in series to one HYB inverter, only SigenStack BC M2-0.5C-BST/1C-BST is used.
4. The number of HYB is depended on the capacity of gateway; Maximum 48 units of 50kW HYB for Gateway C2400-B.
5. If more than 3* HYB are needed, the Sigen Energy Gateway C600/C1200/C1600/C2000/C2400-B will be needed to support more HYB in parallel.
6. Diesel Generator is optional and can be connected at the smart port. The signal cable from DG need to be connected to the DO of Gateway to realize "Two-wire Start" function on the APP.
7. Optional Ethernet and 4G for single unit, **recommended to use Ethernet hand in hand communication in parallel scenarios.**

Each system supports :

SigenStack BAT × **21** per inverter

Sigen PV 50~110 M1-HYB × **24~48** in parallel

Sigen Gateway C600/C1200/C1600/C2000/C2400-B × **1**

Max AC output power **2,400** kWac*

Max. ESS capacity **12,144** kWh*

**Take Sigen Hybrid Inverter 110 kW & SigenStack BAT 12.0 as an example*