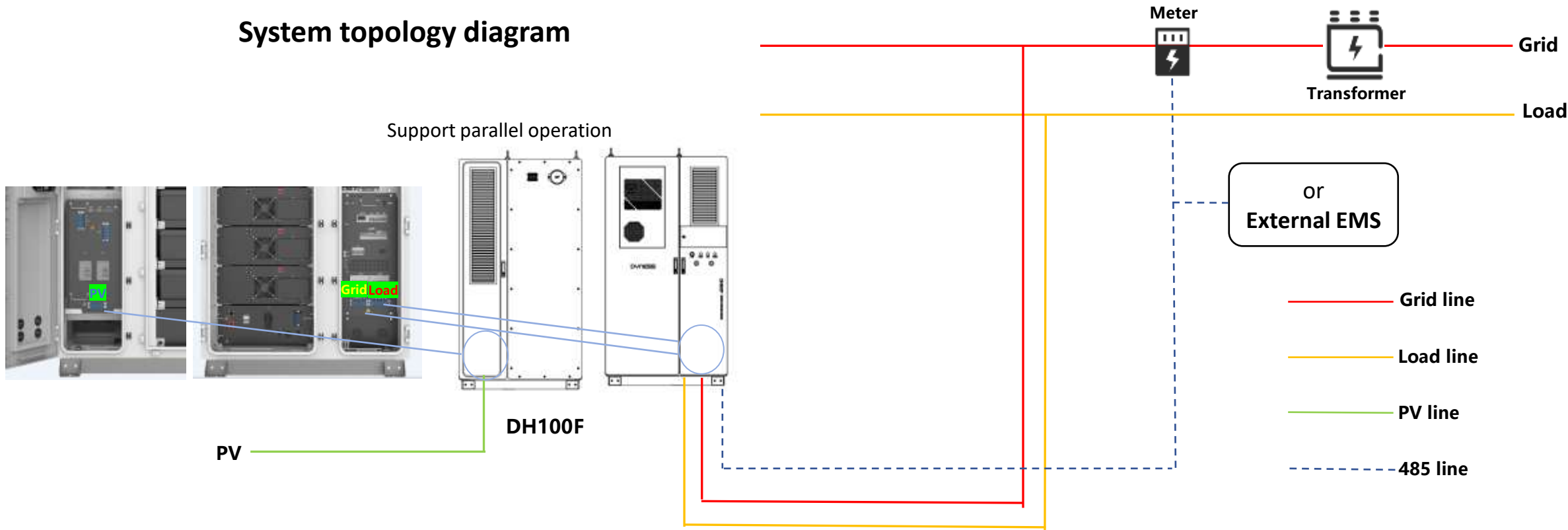


System topology diagram



Serial number	Type	Wiring harness specification	Terminal specification
1	GRID	Outdoor single-core copper cable 4AWG	DT25-6
3	LOAD (Optional)	Outdoor single-core copper cable 4AWG	DT25-6
4	PV(Optional)	Outdoor single-core copper cable 6AWG	SC16-6
5	PE	Outdoor single-core copper cable/yellowgreen dual color 6AWG	SC16-6
6	Communication line	Shielded Twisted Pair 2mm ²	
	Ethernet Cable	Category 6A	RJ45 Connector

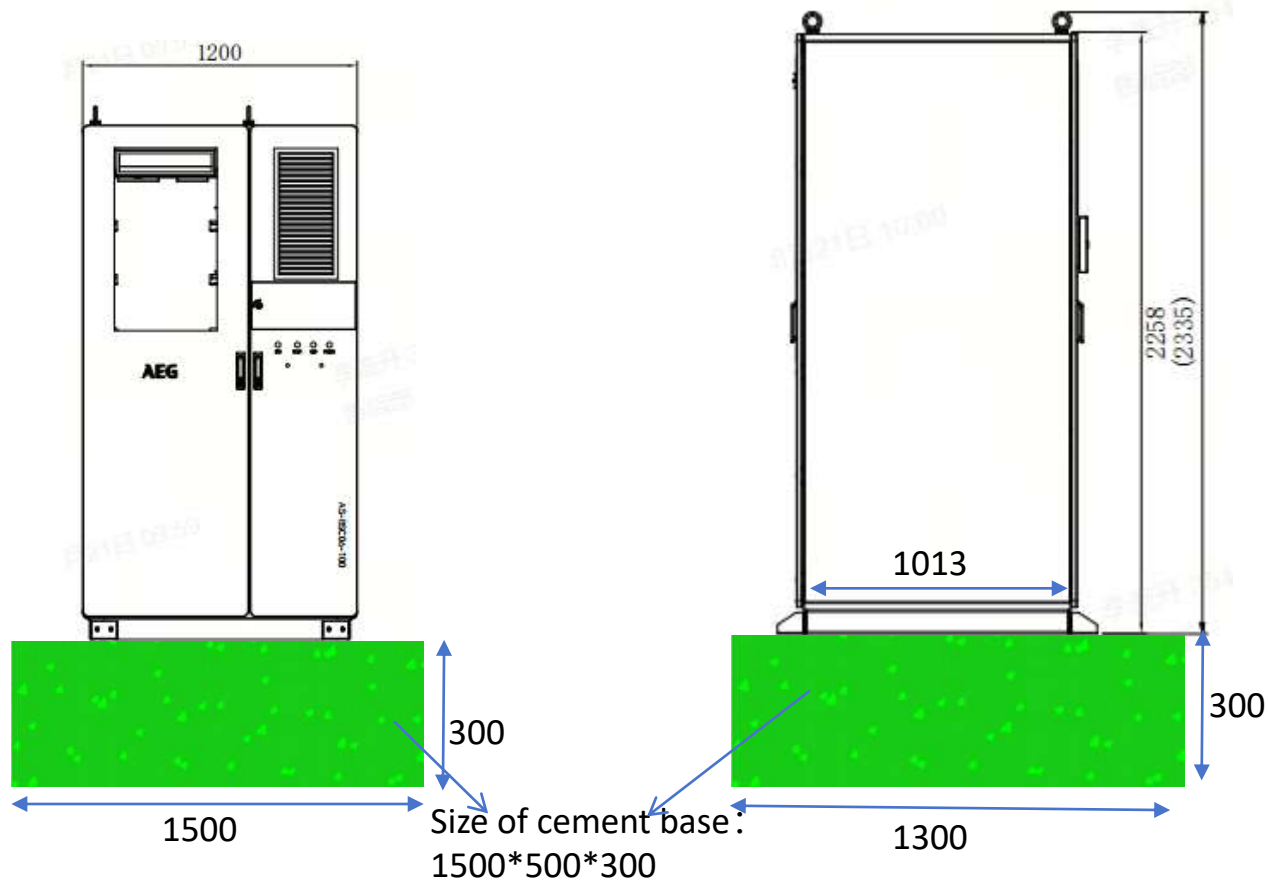


Selection of communication lines

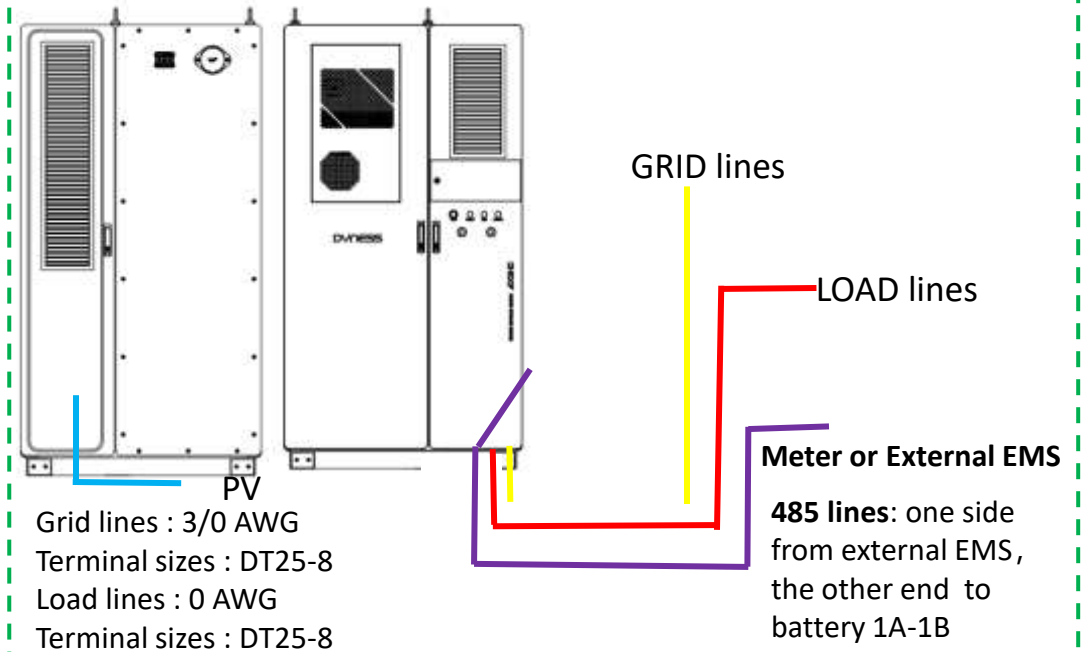
work mode	Communication method	Communication line type
Automatic mode	RS485 (with meter)	Shielded Twisted Pair 2mm ²
Remote mode	MODBUS TCP	Ethernet Cable (Category 6A)
	RS485(with external EMS)	Shielded Twisted Pair 2mm ²

Install **one cabinet**

① Preparatory work: Foundation construction



② Prepare the power and communication lines(battery has STS, need LOAD harness)



The operation mode supports **automatic** mode (electricity meter installation required) and **remote** mode (**MODBUS** and **RS485**, electricity meter installation not required).

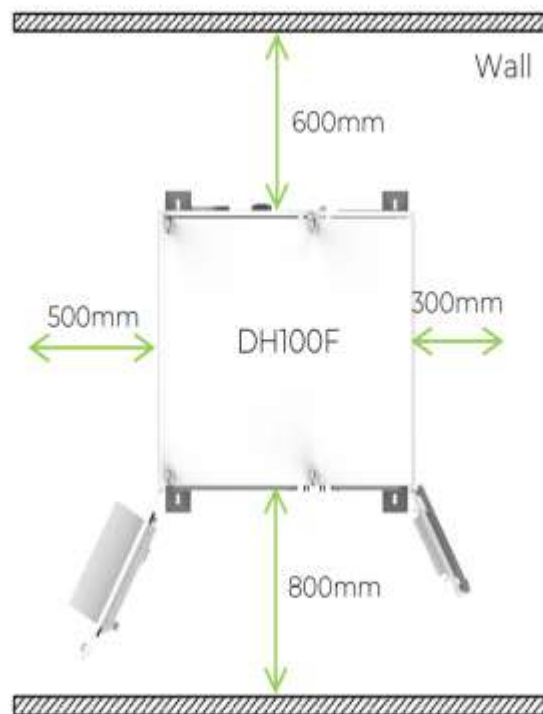
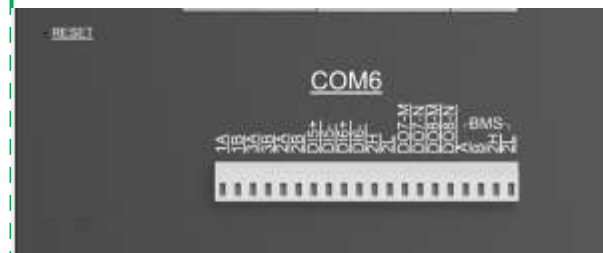


Figure 5-1 Single Product Installation

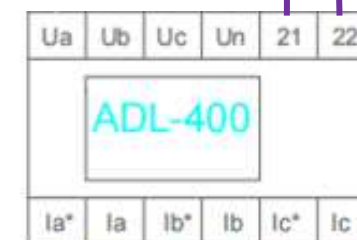
③



Come 6		
EMS: 1A	1	Computer
EMS: 1B	2	
EMS: CAN2_H	3	System parallel operation
EMS: CAN2_L	4	
EMS: 3A	5	Anti-reflux Electricity meter
EMS: 3B	6	

Terminal block inside the battery

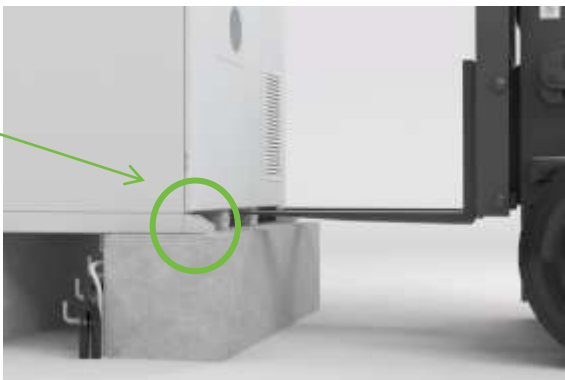
Shielded Twisted Pair 2mm²



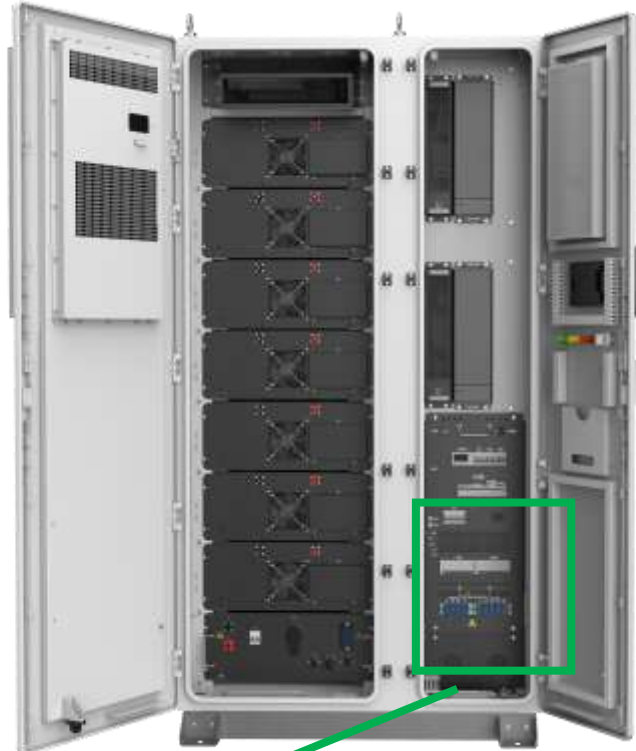
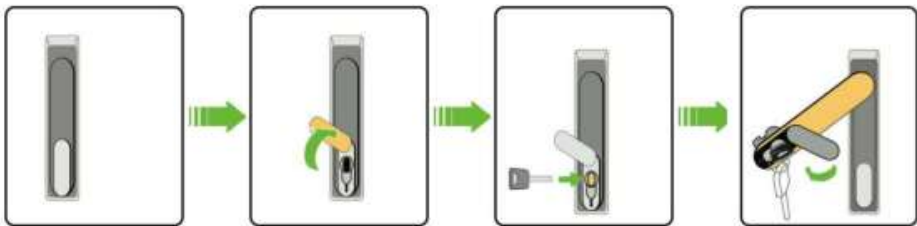
Meter



④ Fix the expansion screws



⑤ Open the cabinet door

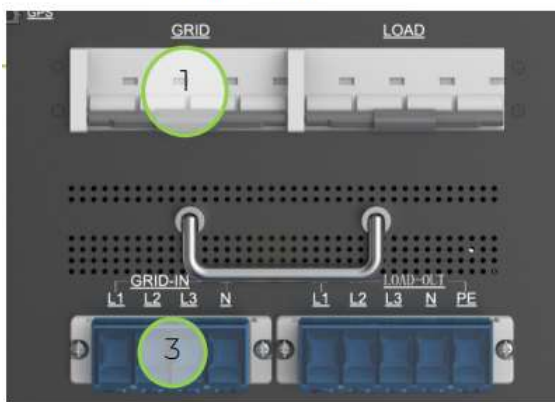


⑥ Series the battery packs



⑦

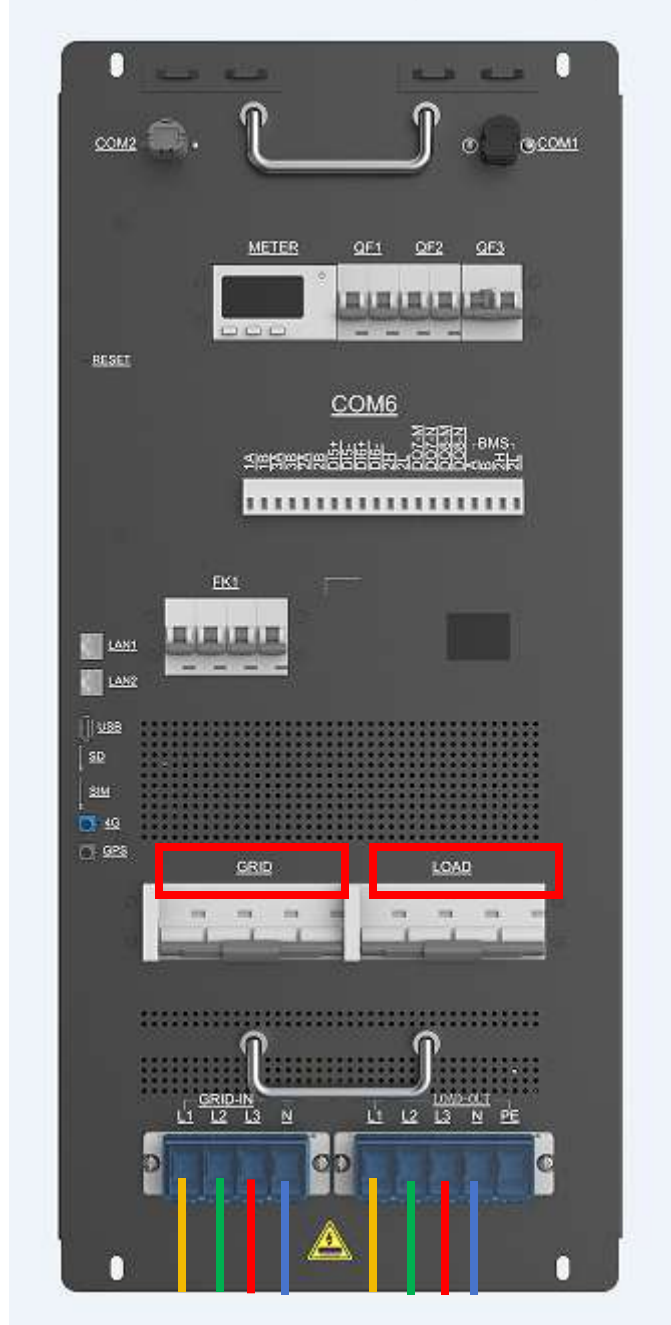
Load AC Connection



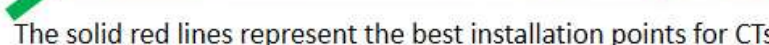
⑧



⑨ Connect the photovoltaic wiring harness (optional), LOAD port and GRID port wiring harnesses

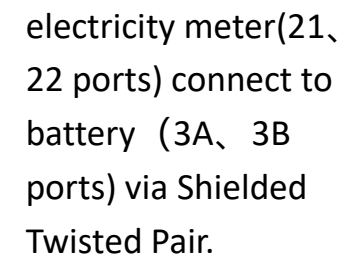


10



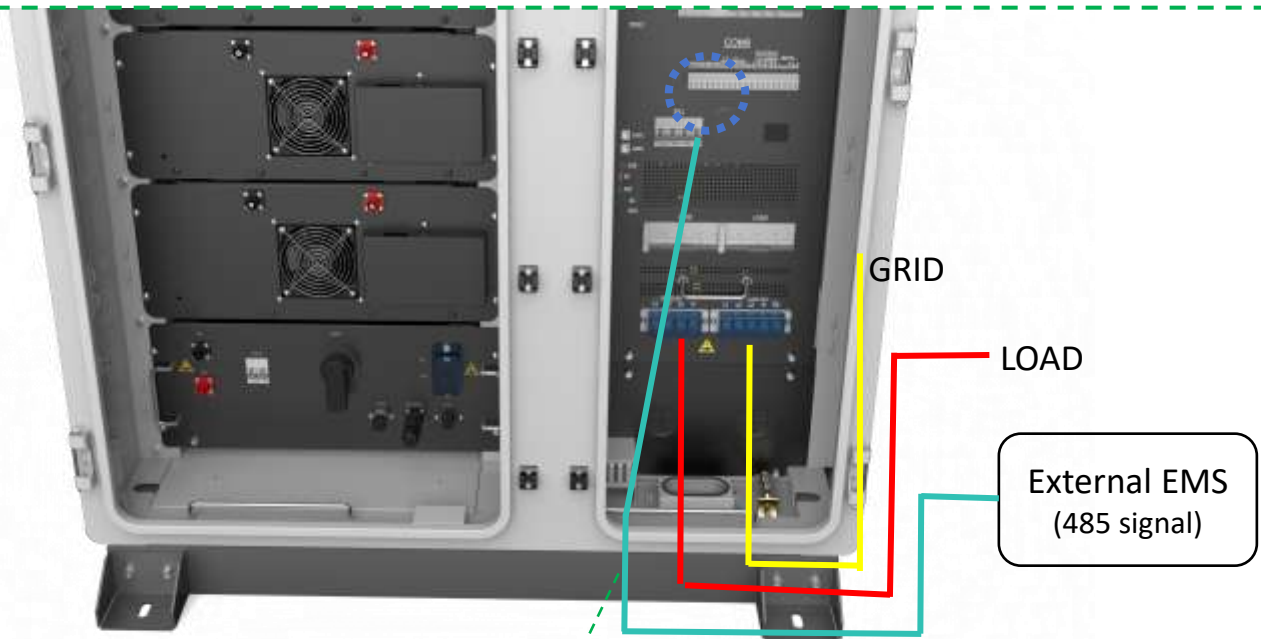
CTs must be installed at the upstream of all loads to monitor the grid transformer's real-time power (i.e., total load-side power consumption).

P1 side → Grid-facing
P2 side → Load-facing



485 signal control

Remote mode (controlled by an external EMS),
there is no need to connect electricity meter

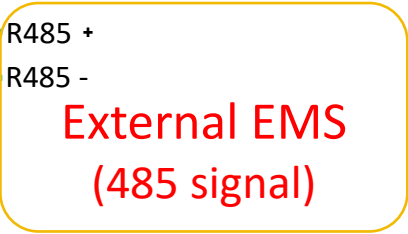


Communication illustration

Terminal block
inside the battery

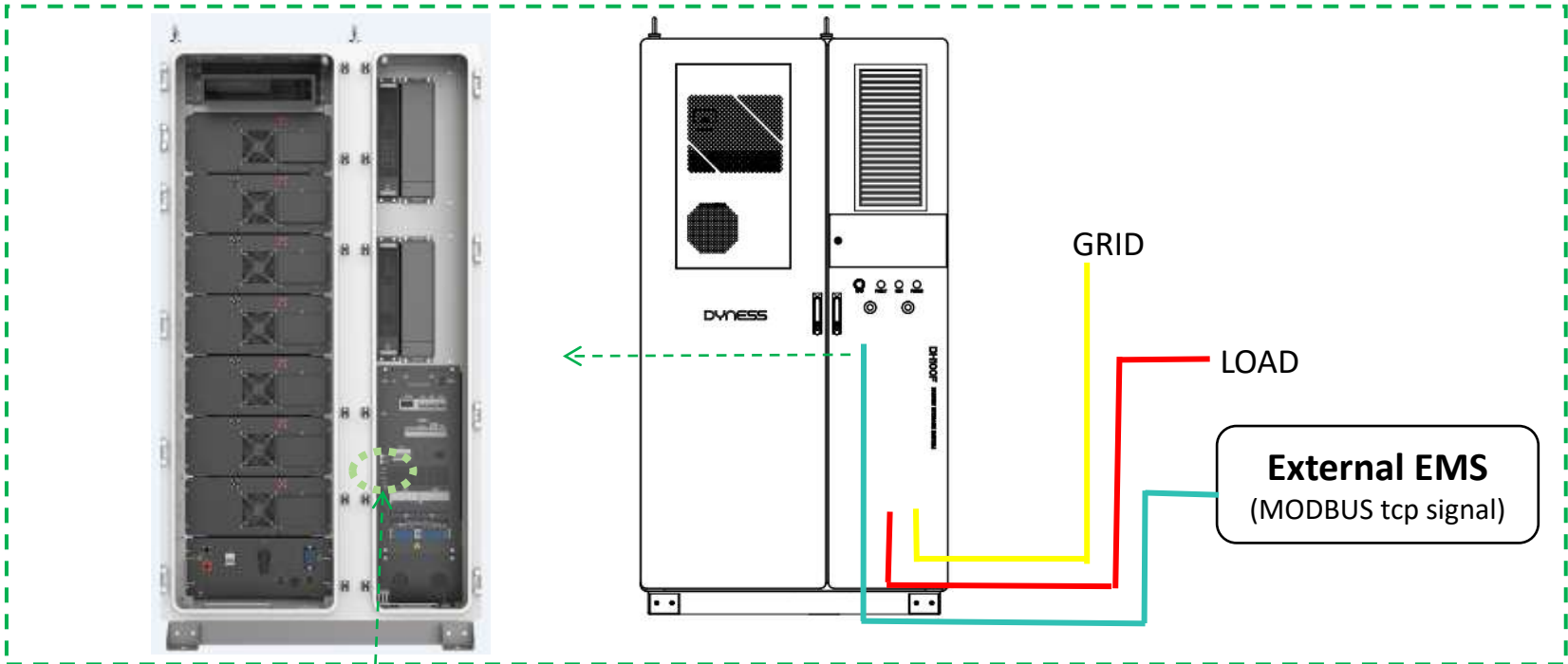
DZ2		
EMS:1A	1	Computer
EMS:1B	2	
EMS:CAN2_H	3	System parallel operation
EMS:CAN2_L	4	
EMS:3A	5	Anti-reflux Electricity meter
EMS:3B	6	

Shielded Twisted Pair 2mm²
485 lines: one side from external EMS, the other end to battery 1A-1B

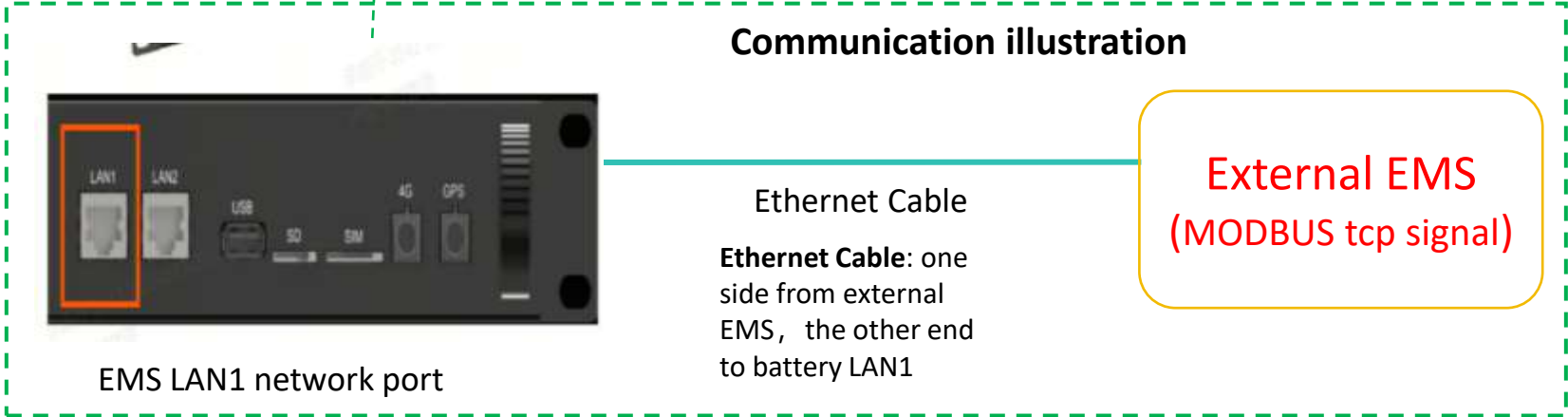


MODBUS tcp signal control

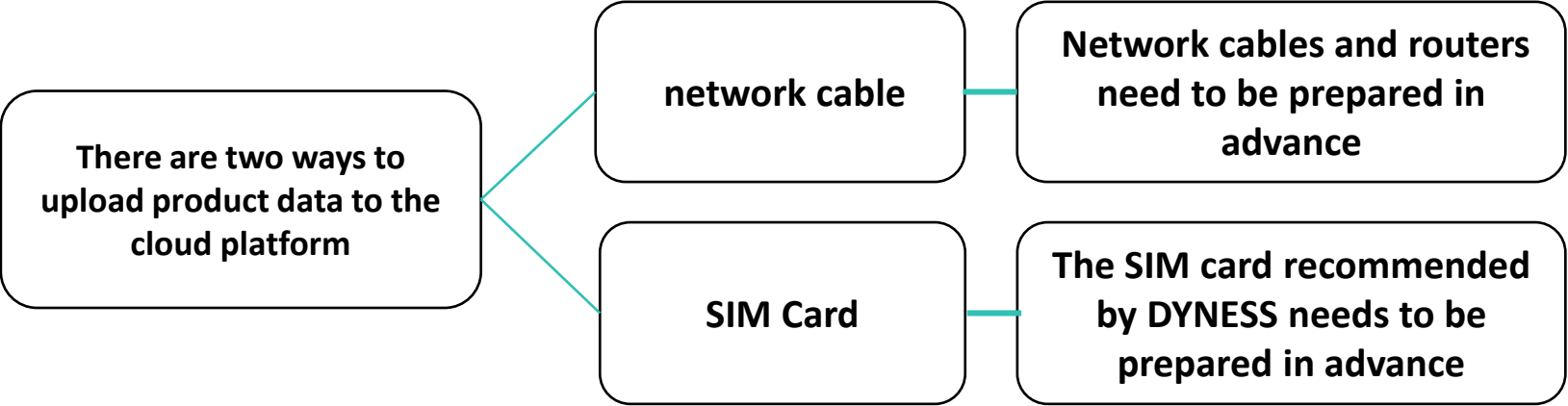
Remote mode (controlled by an external EMS),
there is **no need** to connect electricity meter



Communication illustration



11.The product uploads data to the cloud platform



Install **multiple cabinets**

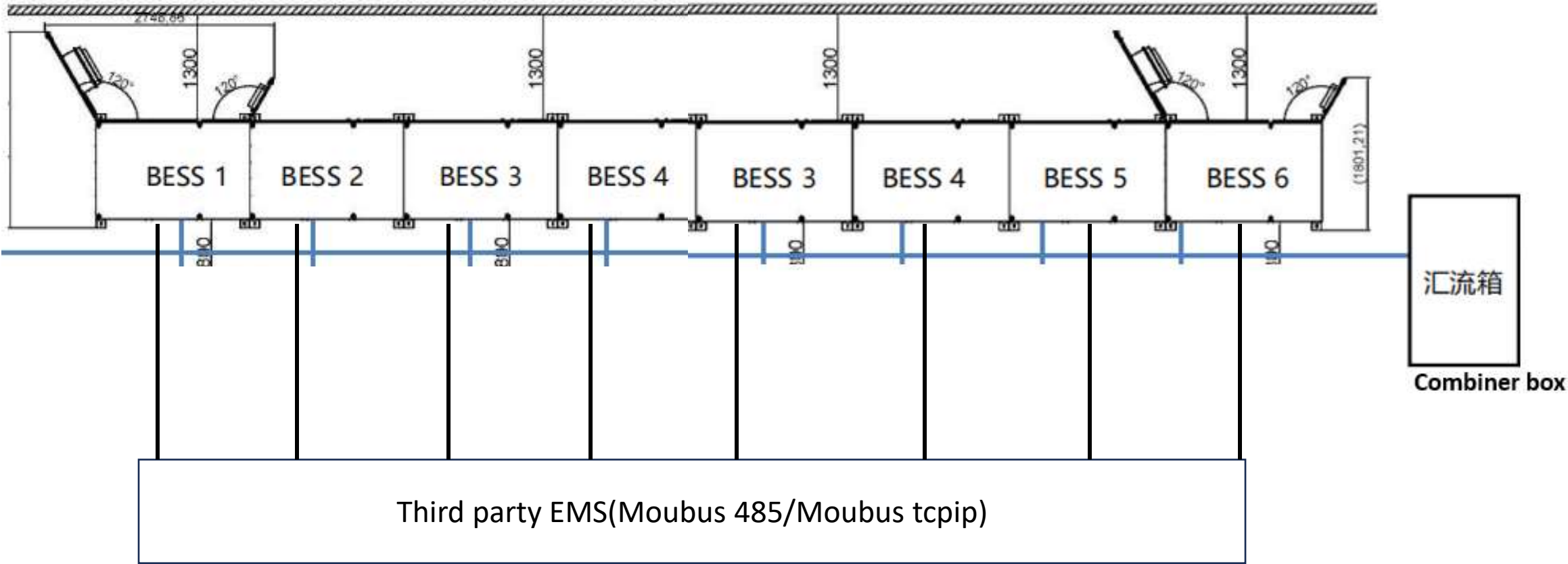
The wiring methods for parallel operation

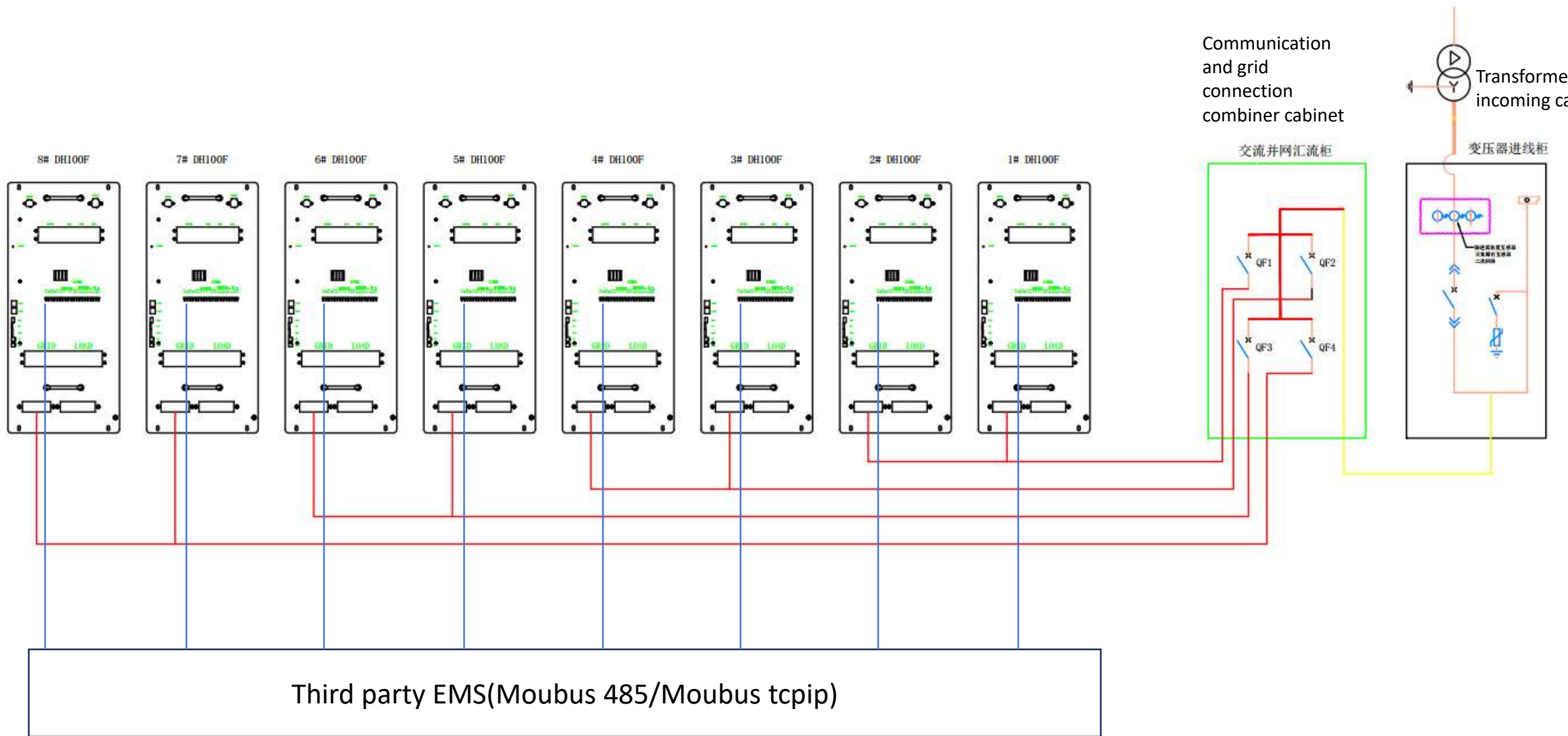
1、 Remote mode control of each cabinet

2、 Multi machine parallel automatic mode/remote mode control single cabinet

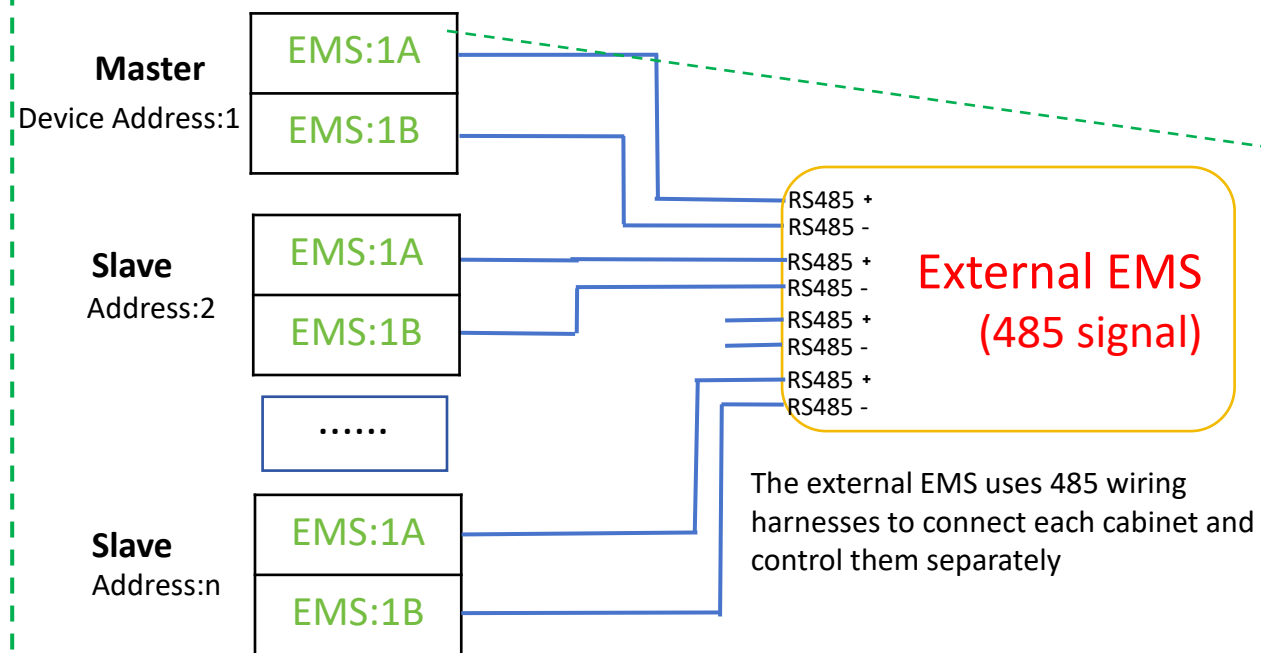
The operation mode supports **automatic** mode (electricity meter installation required) and **remote mode (MODBUS and RS485, electricity meter installation not required).**

The first set of plans,Install **more than 1 cabinets**

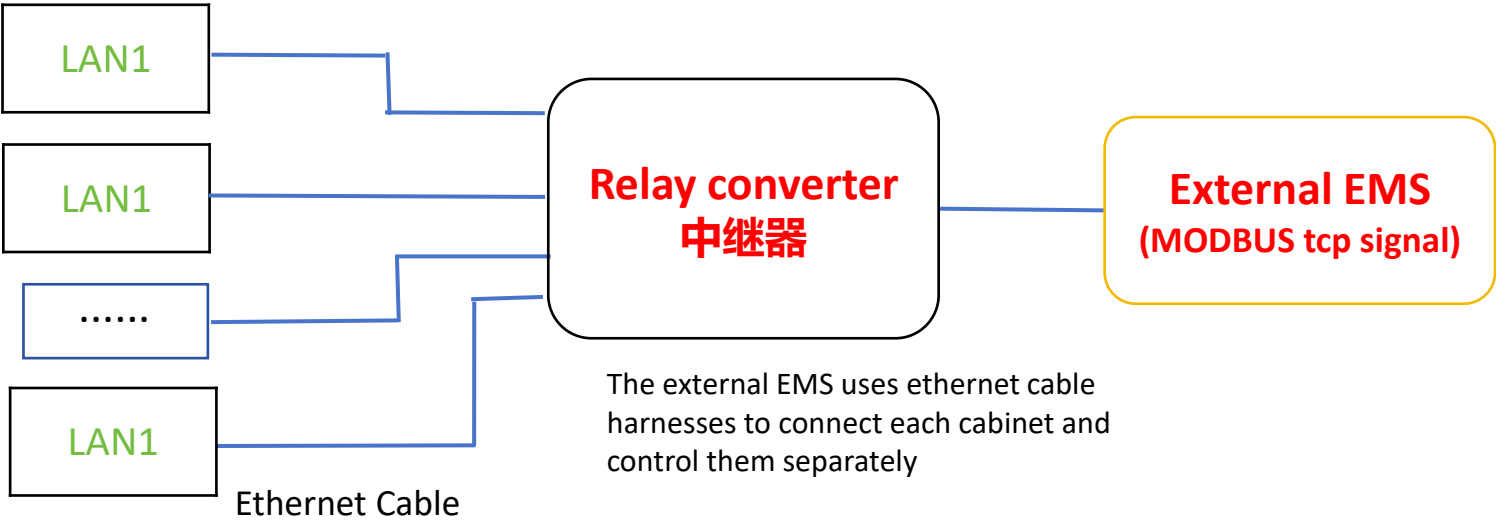




Multiple 485 wire harnesses control multiple units respectively

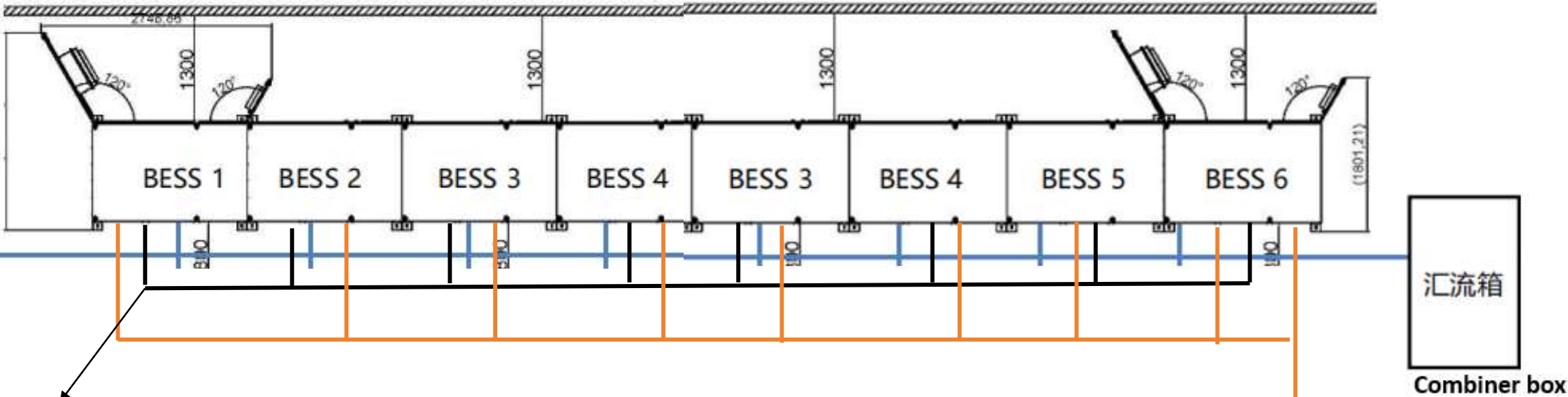


Multiple Ethernet cable harnesses control multiple units respectively

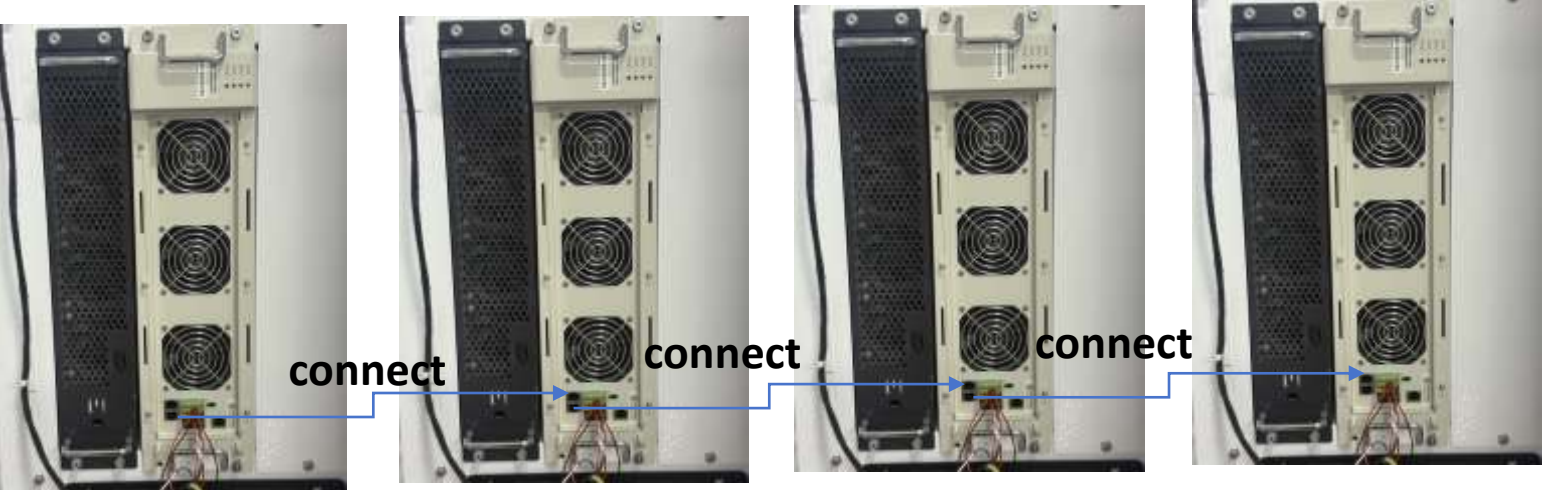


The second set of plans,Install **more than 1 cabinets**

- power line
- CAN communication harness
- PCS Ethernet communication

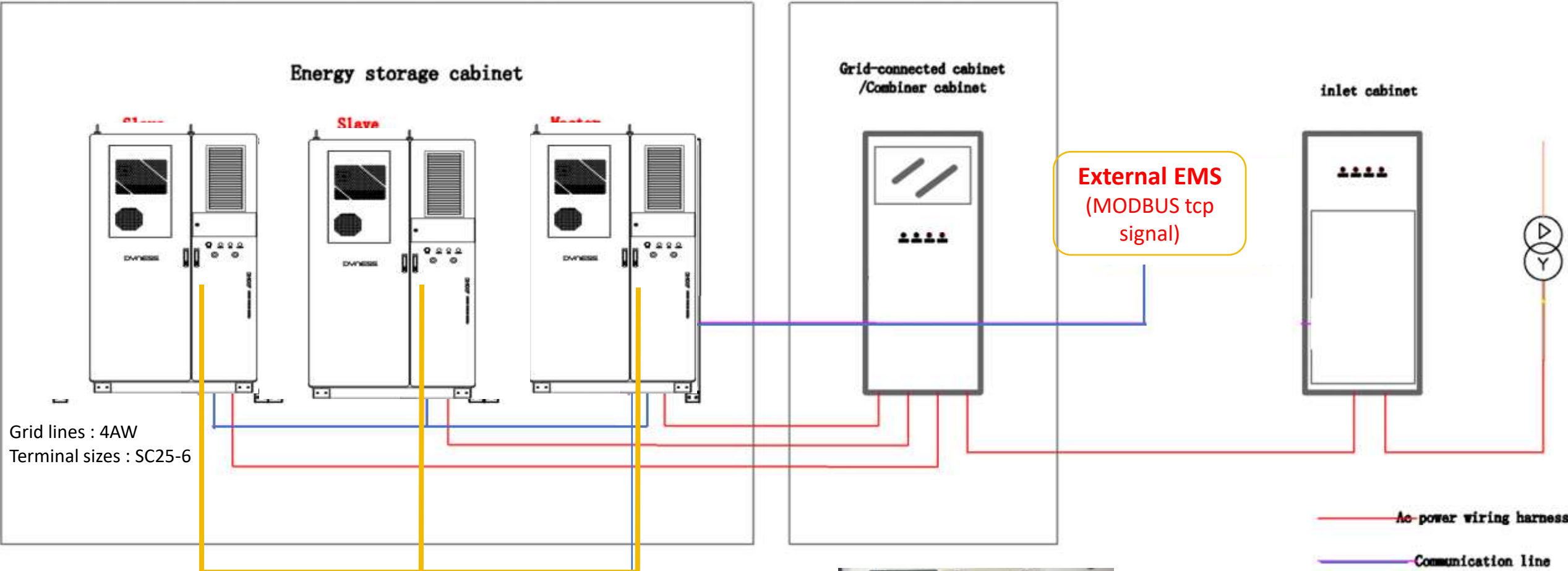


Connect PCS network cable through Ethernet cable



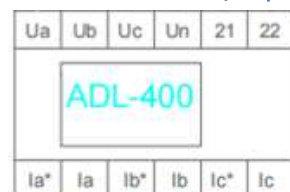
Third party EMS(Moubus 485/Moubus tcpip)

MODBUS tcp signal control



Communication lines connected to each cabinet

Shielded Twisted Pair 2mm²



COM6
对外接口
QCTB4

QCTB4 接线表

EMS:1A	1	EMS上位机
EMS:1B	2	EMS上位机
EMS:3A	3	防逆流电表
EMS:3B	4	防逆流电表
EMS:2A	5	备用
EMS:2B	6	备用
EMS:D15+	7	柴发反馈
EMS:D15-	8	柴发反馈
EMS:D16+	9	预留输入信号
EMS:D16-	10	预留输入信号
EMS:CAN2_H	11	并机通讯
EMS:CAN2_L	12	并机通讯
EMS:D07-COM	13	柴发启动-COM
EMS:D07-NO	14	柴发启动-NO
EMS:D08-COM	15	预留-COM
EMS:D08-NO	16	预留-NO
BMS:48SA	17	直流扩展预留
BMS:48SB	18	直流扩展预留
BMS:CAN_2H	19	BMS上位机
BMS:CAN_2L	20	BMS上位机

101120Ω
终端电阻

COM6
对外接口
QCTB4

QCTB4 接线表

EMS:1A	1	EMS上位机
EMS:1B	2	EMS上位机
EMS:3A	3	防逆流电表
EMS:3B	4	防逆流电表
EMS:2A	5	备用
EMS:2B	6	备用
EMS:D15+	7	柴发反馈
EMS:D15-	8	柴发反馈
EMS:D16+	9	预留输入信号
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EMS:CAN2_H	11	并机通讯
EMS:CAN2_L	12	并机通讯
EMS:D07-COM	13	柴发启动-COM
EMS:D07-NO	14	柴发启动-NO
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EMS:D08-NO	16	预留-NO
BMS:48SA	17	直流扩展预留
BMS:48SB	18	直流扩展预留
BMS:CAN_2H	19	BMS上位机
BMS:CAN_2L	20	BMS上位机

COM6
对外接口
QCTB4

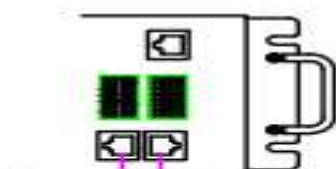
QCTB4 接线表

EMS:1A	1	EMS上位机
EMS:1B	2	EMS上位机
EMS:3A	3	防逆流电表
EMS:3B	4	防逆流电表
EMS:2A	5	备用
EMS:2B	6	备用
EMS:D15+	7	柴发反馈
EMS:D15-	8	柴发反馈
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BMS:CAN_2H	19	BMS上位机
BMS:CAN_2L	20	BMS上位机

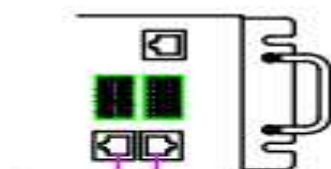
COM6
对外接口
QCTB4

QCTB4 接线表

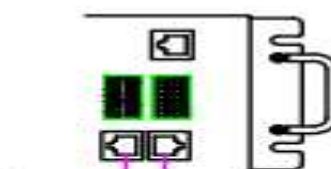
EMS:1A	1	EMS上位机
EMS:1B	2	EMS上位机
EMS:3A	3	防逆流电表
EMS:3B	4	防逆流电表
EMS:2A	5	备用
EMS:2B	6	备用
EMS:D15+	7	柴发反馈
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EMS:D16+	9	预留输入信号
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BMS:48SA	17	直流扩展预留
BMS:48SB	18	直流扩展预留
BMS:CAN_2H	19	BMS上位机
BMS:CAN_2L	20	BMS上位机



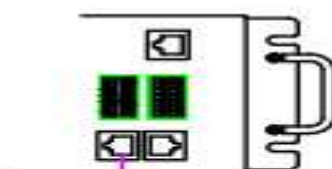
4#DH100F



3#DH100F



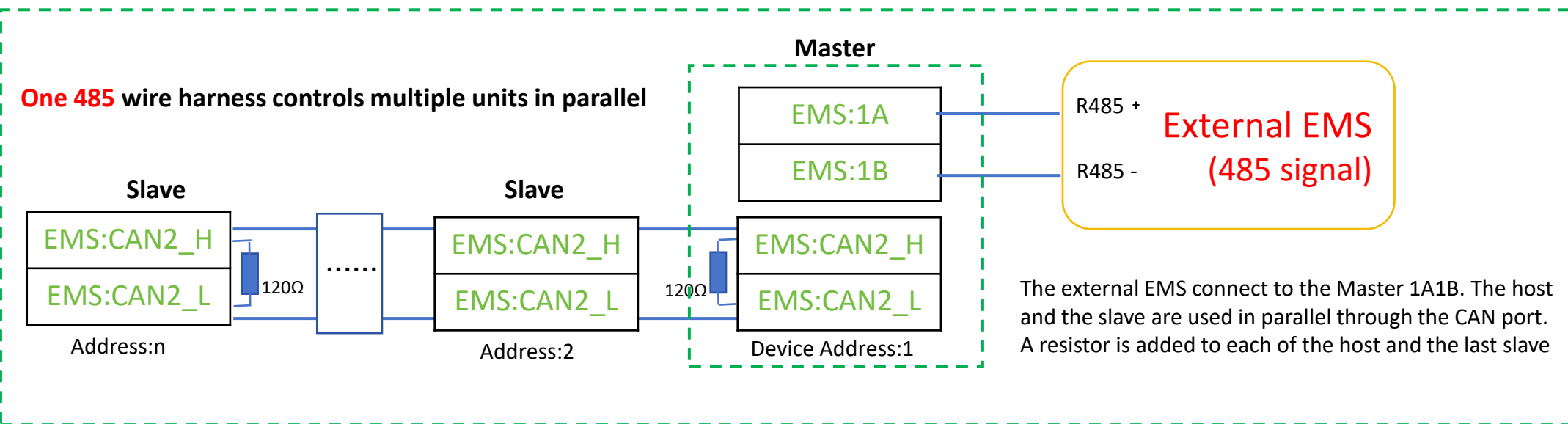
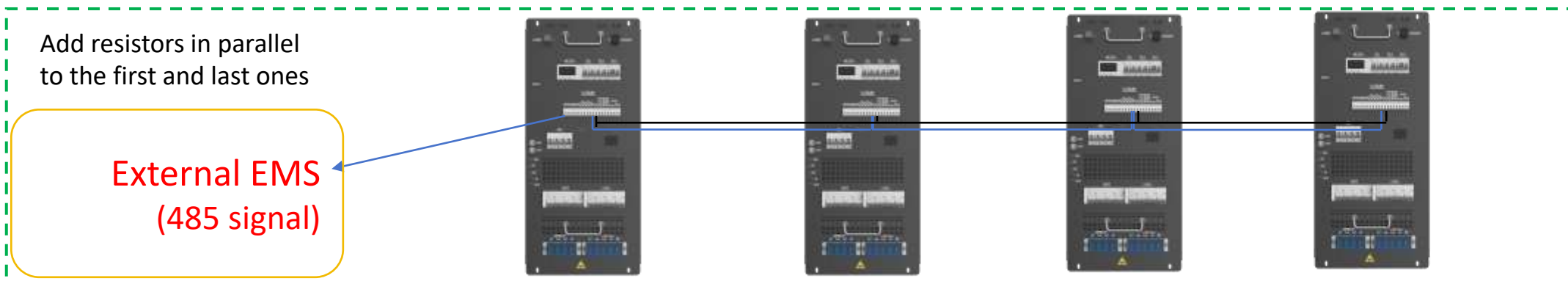
2#DH100F



1#DH100F

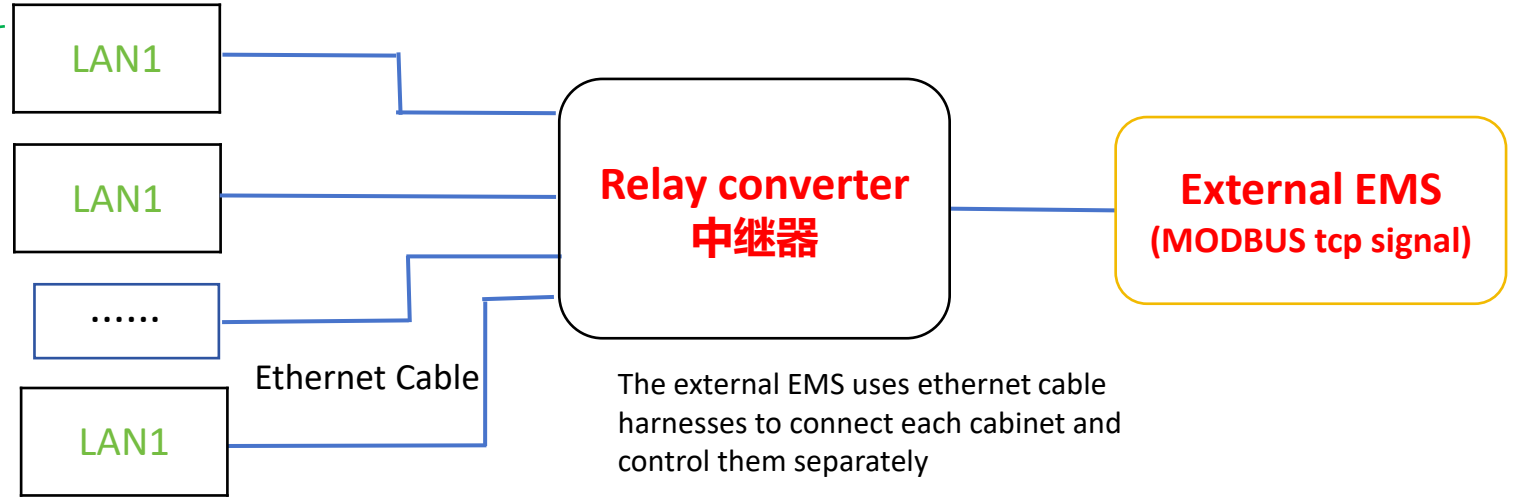
标准网线

Take four units as an example,
the 8 ports of the terminal
block need to be connected in
series as shown in the diagram.



MODBUS tcp signal control

Multiple Ethernet cable harnesses control multiple units respectively



One ethernet cable controls multiple units in parallel

