

LUNA2000-(5-30)-S0

06
2021-08-17



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Huawei Technologies Co., Ltd.



Huawei

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Huawei

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Website: <https://e.huawei.com>

LUNA2000




LUNA2000


LUNA2000-5KW-C0

LUNA2000-5-E0.

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-

 DANGER	
 WARNING	
 CAUTION	
NOTICE	

 NOTE	

06 (2021-08-17)

[8.2 LUNA2000-5-E0.](#)

05 (2021-07-10)

- [1.1](#)
- [1.4](#)
- [8.3 SUN2000-](#)

04 (2021-05-30)

- [1.1](#)
- [2.3](#)

03 (2021-04-01)

- [5.3.3](#)
- [7.1](#)
- [7.4](#)
- [9](#)

02 (2020-11-20)

- [2.3](#)
- [3.1 ESS,](#)
- [4.3](#)
- [7.4](#)
- [8.1 LUNA2000-5KW-C0.](#)
- [8.2 LUNA2000-5-E0.](#)

01 (2020-10-20)

	.....	ii
1	.....	1
1.1	.....	1
1.2	.....	4
1.3	.....	5
1.4	.....	6
1.5	.....	7
1.6	.....	8
1.7	.....	9
1.8	.....	10
2	.....	11
2.1	.....	11
2.2	.....	14
2.3	.....	16
2.4	.....	18
2.5	.....	19
3	.....	21
3.1 ESS,	.....	21
3.1.1 ESS,	.....	21
3.1.2 ESS.....	.....	25
3.2 ESS.....	.....	31
3.2.1 ESS.....	.....	31
3.2.2 ESS,	.....	35
3.3 ESS.....	.....	36
3.3.1 ESS.....	.....	36
3.3.2 ESS Pure Off-Grid.....	.....	37
4	.....	39
4.1	.....	39
4.2	.....	39
4.3	.....	41
4.4	.....	42
4.4.1	.....	42

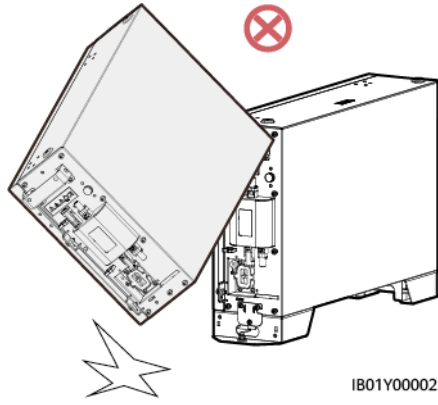
4.4.2		47
5		51
5.1		52
5.2		53
5.2.1		53
5.2.2		54
5.2.3		55
5.3		56
5.3.1	PE	60
5.3.2		62
5.3.3		63
5.4 ()		66
5.5		68
6		70
6.1		70
6.2		71
6.3		72
6.3.1		73
6.3.2		74
6.3.3		77
6.3.4		77
7		80
7.1		80
7.2		80
7.3		81
7.4		91
8		96
8.1	LUNA2000-5KW-C0	96
8.2	LUNA2000-5-E0	97
8.3	SUN2000-Related	97
9		99
9.1	?	99
9.2	SOC	101
9.3		101
9.4		101
A		102

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- (a)
- (b)
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- (d)
- (e)
- (f)

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- FM-200 ABC.
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1.2

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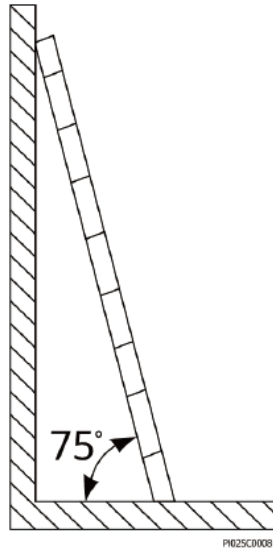
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 CAUTION

1.6

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75



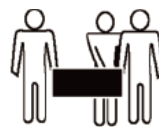
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- :
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< 18 kg
(< 40 lbs)



18-32 kg
(40-70 lbs)



32-55 kg
(70-121 lbs)



> 55 kg
(> 121 lbs)

OR



NH01H00144

1.7

2

2.1

Φ

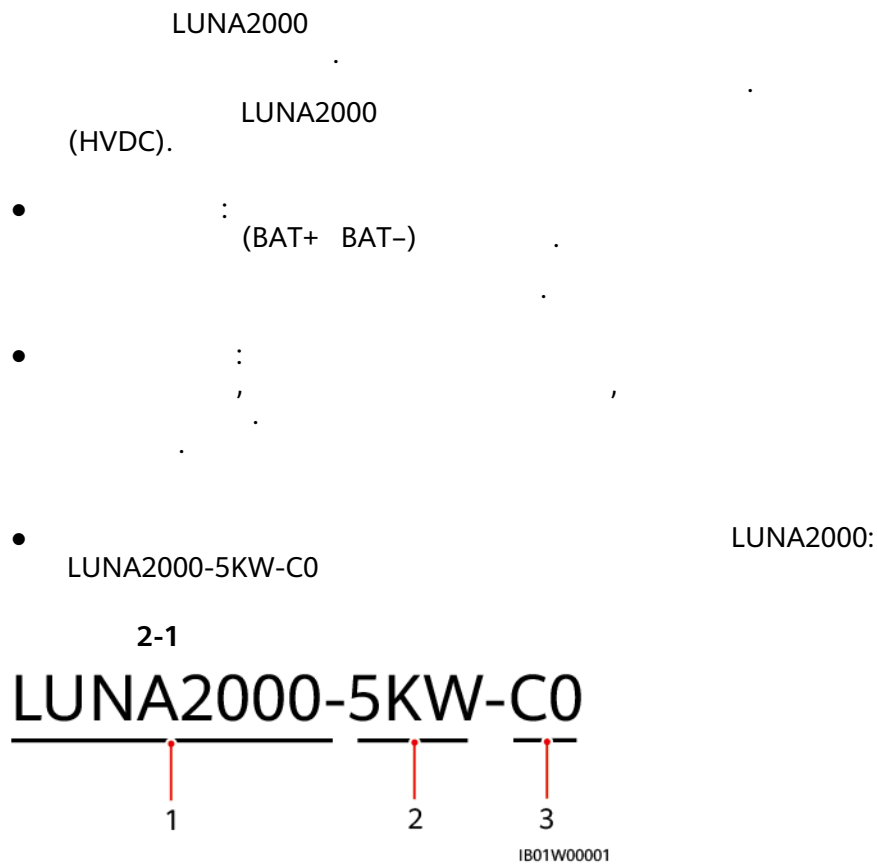


Table 2-1 Model description

No.	Meaning	Value
1		LUNA2000: LUNA2000
2		5KW: 5 .
3		C0:

- LUNA2000: LUNA2000-5-E0

Figure 2-2 Model number

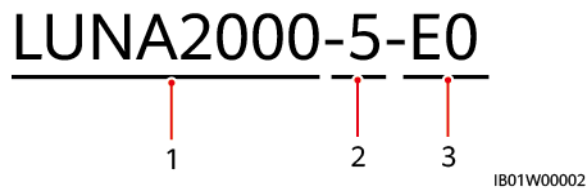


Table 2-2 Model description

No.	Meaning	Value
1		LUNA2000:
2		5: 5 . .
3		E0:

- LUNA2000 LUNA2000-5-S0.

Figure 2-3 Model number

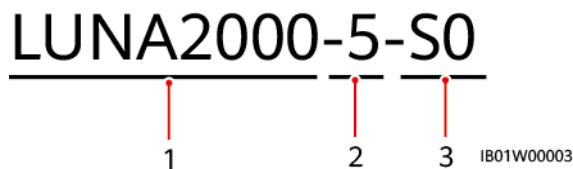
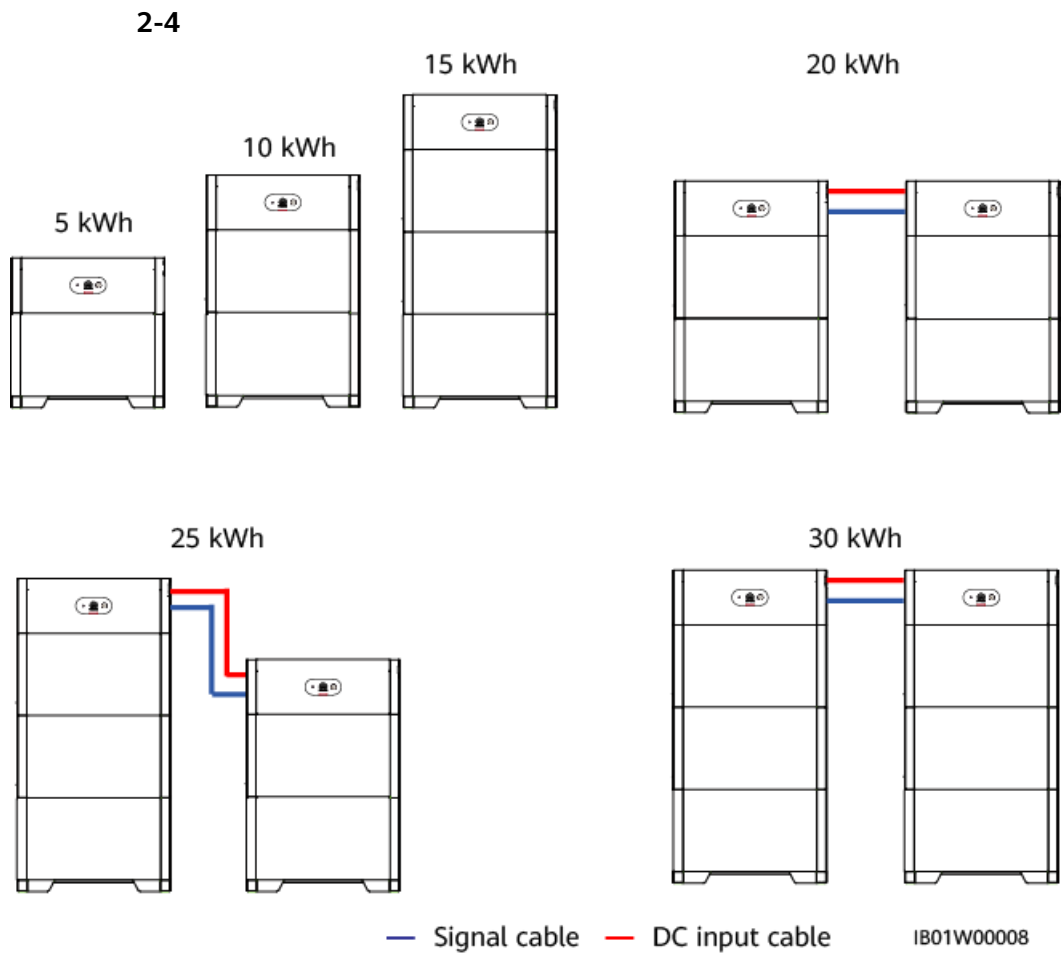


Table 2-3 Model description

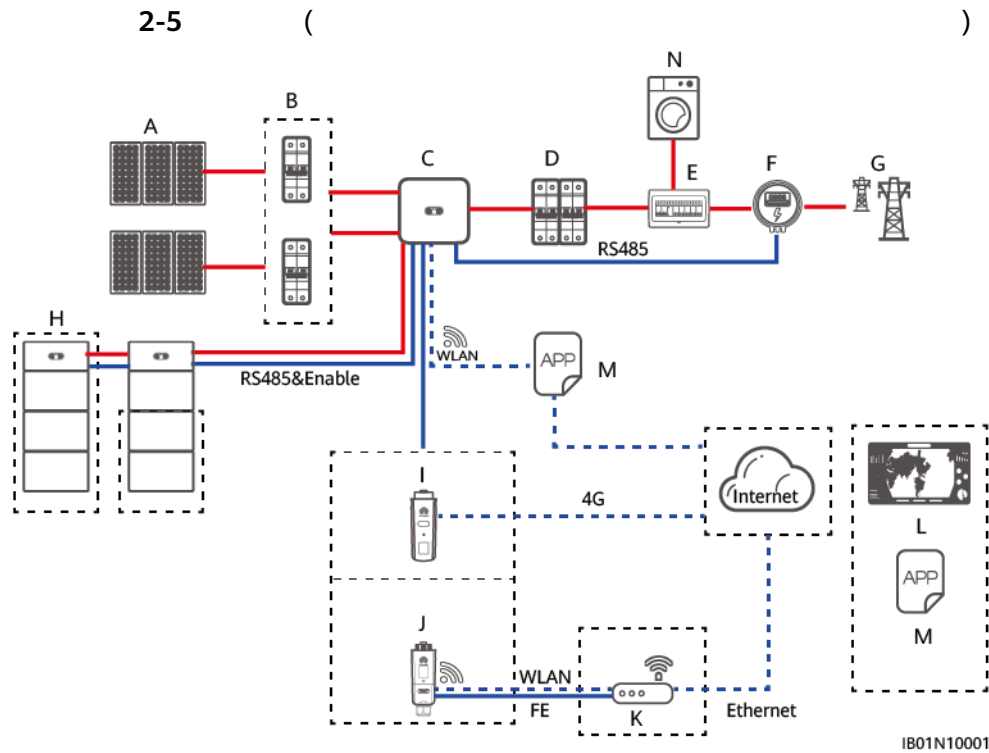
No.	Meaning	Value
1		LUNA2000:
2		5: 5 5 . . 5 - 30 - .

No.	Meaning	Value
3		S0:



LUNA2000

LUNA2000,
(PDB).

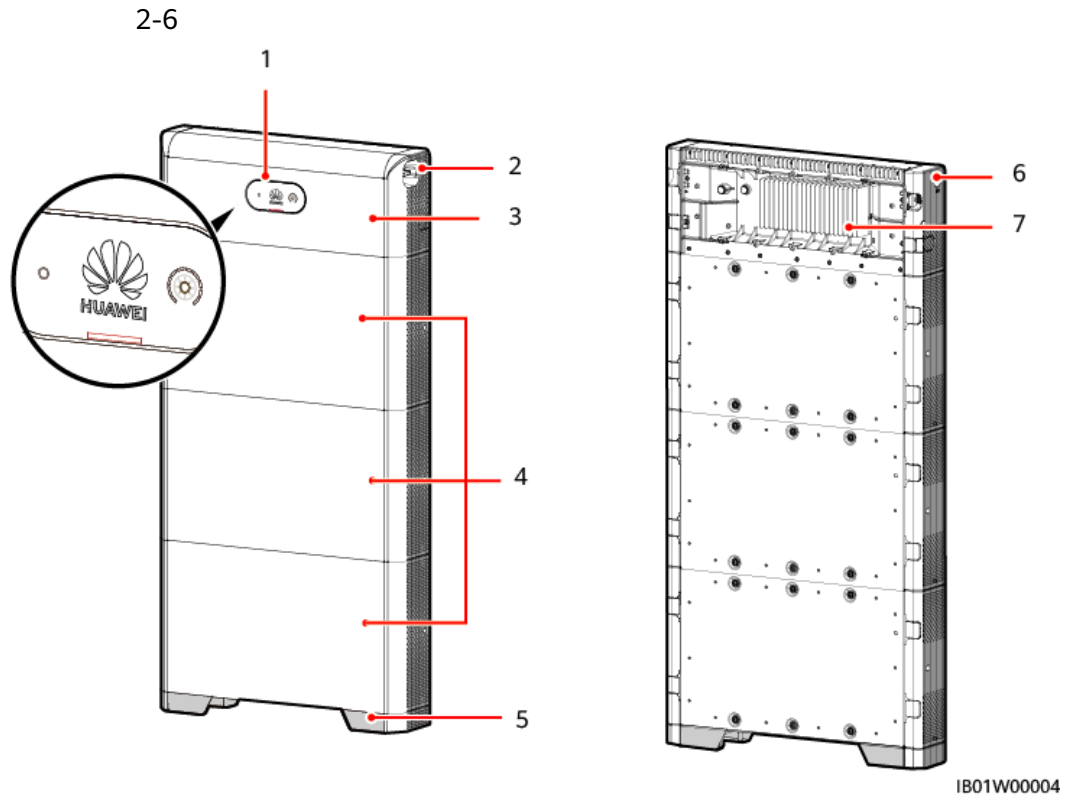


- (A) PV
- (B) DC
- (C) SUN2000
- (D) AC
- (E) ACDCU
- (F) Smart Power Sensor
- (G)
- (H) LUNA2000
- (I) 4G Smart Dongle
- (J) WLAN-FE Smart Dongle
- (K)
- (L) FusionSolar
- (M) FusionSolar app
- (N)

NOTE

- — indicates a power cable, — indicates a signal cable, - - - indicates wireless communication.
- LUNA2000
- LUNA2000
- LUNA2000 RS485 LUNA2000.
- LUNA2000.
- LUNA2000 Smart Dongle
- LUNA2000

2.2



(1) LED-

(2) DC

(3)

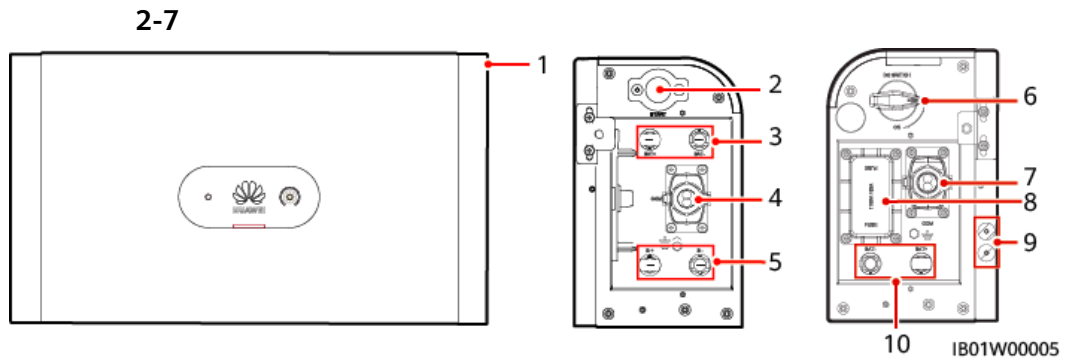
(4)

(5)

(6)

(7)

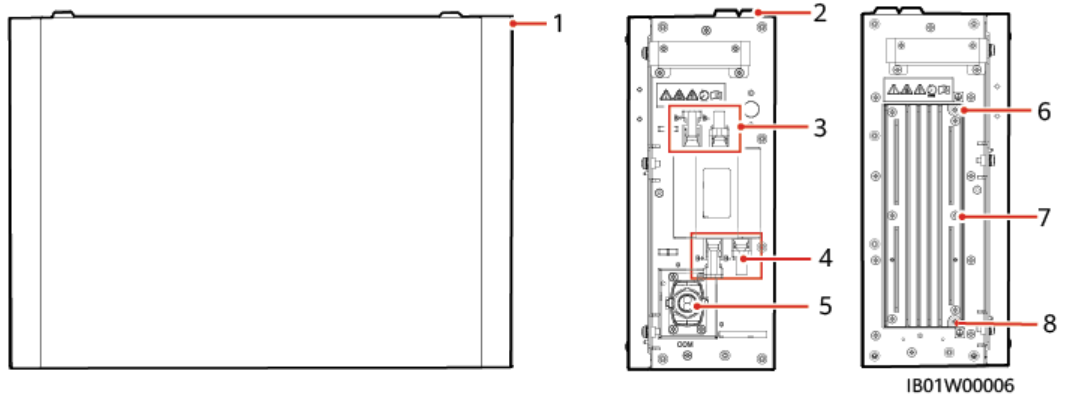
5



- (1)
- (2)
- (3) (BAT+ / BAT-)
- (4) COM (COM) (5) (6) DC (DC SWITCH)
- (7) COM port (COM) (8) (9)
- (10) (BAT- / BAT +)

5

2-8









- (1)
- (2)
- (3) (BAT+ / BAT-)
- (4) (B+ / B-) (5) COM (COM) (6)
- (7)
- (8)

2.3

Enclosure Labels

2-4

Icon	Name	Meaning
 <div style="border: 1px solid black; padding: 2px;"> <p>WARNING</p> <p>Never touch the enclosure of an operating battery. 储能系统工作时严禁触摸外壳。</p> </div>		
  <div style="border: 1px solid black; padding: 2px;"> <p>DANGER</p> <p>Start maintaining the battery at least 5 minutes after the battery disconnects from all external power supplies. 储能系统与外部所有电源断开后，需要至少等待5分钟，才可以进行维护。</p> </div>		5
 <div style="border: 1px solid black; padding: 2px;"> <p>DANGER</p> <p>Only certified professionals are allowed to install and maintain the battery. 仅有资质的专业人士才可进行储能系统的安装和维护。 High touch current, earth connection essential before connecting supply. 大接触电流！接通电压前须先接地。</p> </div>		
 <div style="border: 1px solid black; padding: 2px;"> <p>CAUTION</p> <p>Read instructions carefully before performing any operation on the battery. 对储能系统进行任何操作前，请仔细阅读说明书！</p> </div>		
		PE-

 NOTE

O&M

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2.5

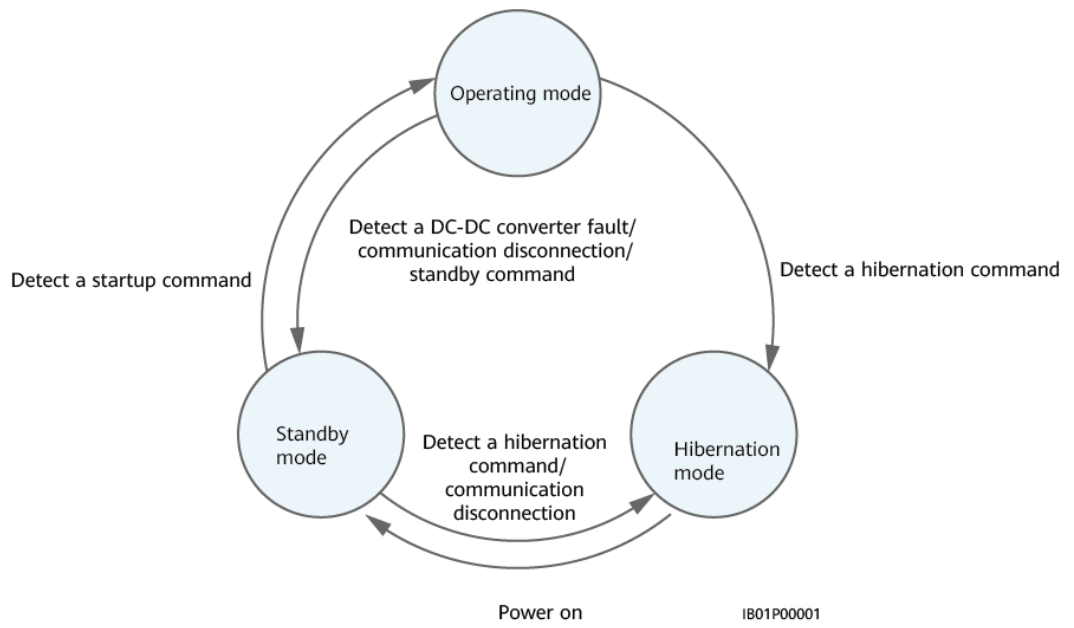
LUNA2000 HVDC, (LVDC) LVDC
 DC-to-DC HVDC,

LUNA2000

2-5

	DC-DC
	DC-DC
	DC-DC

2-11



3

LUNA2000

- (ESS)
- ESS
- ESS

3.1 ESS,

3.1.1 ESS

1: +

ESS

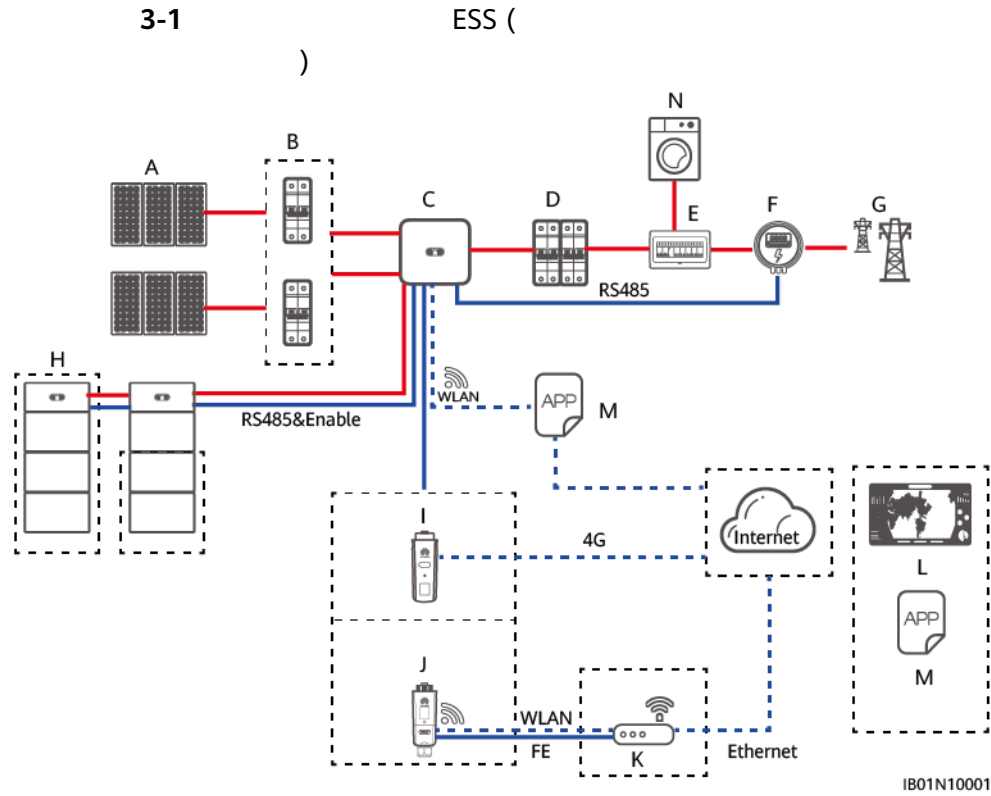
LUNA2000,

(PDU), Smart Power Sensor

SUN2000-(2KTL-6KTL)-L1

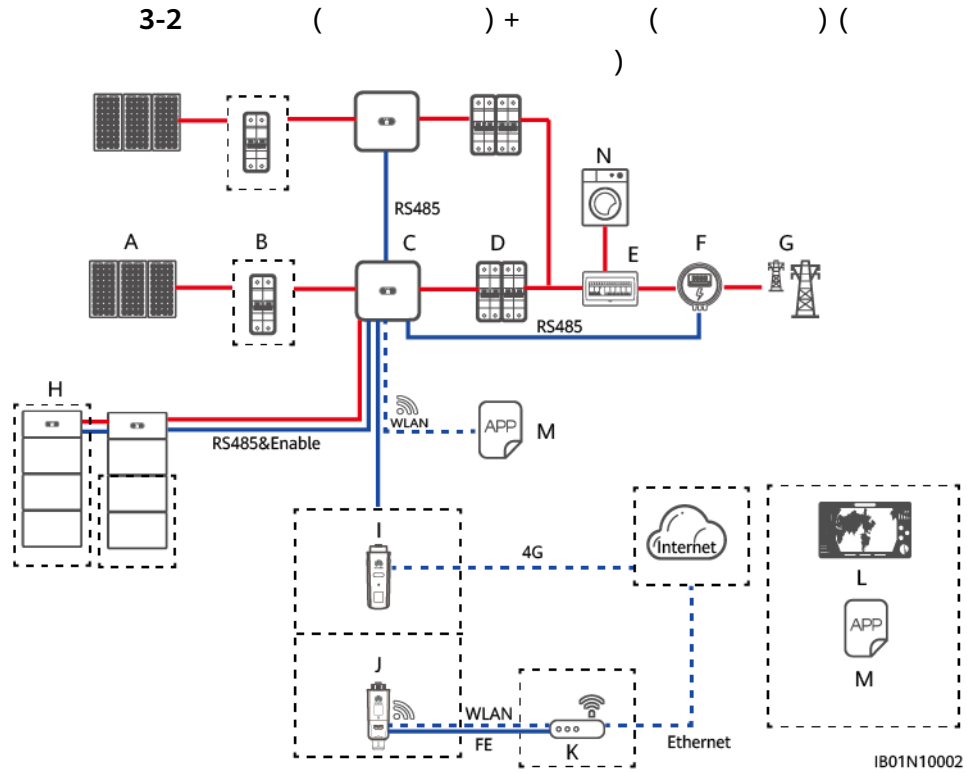
SUN2000-(3KTL-10KTL)-M1.

Φ



2: () + ()
 • ESS

- Smart Dongle
- ESS « TOU (), Smart Dongle. Smart Dongle

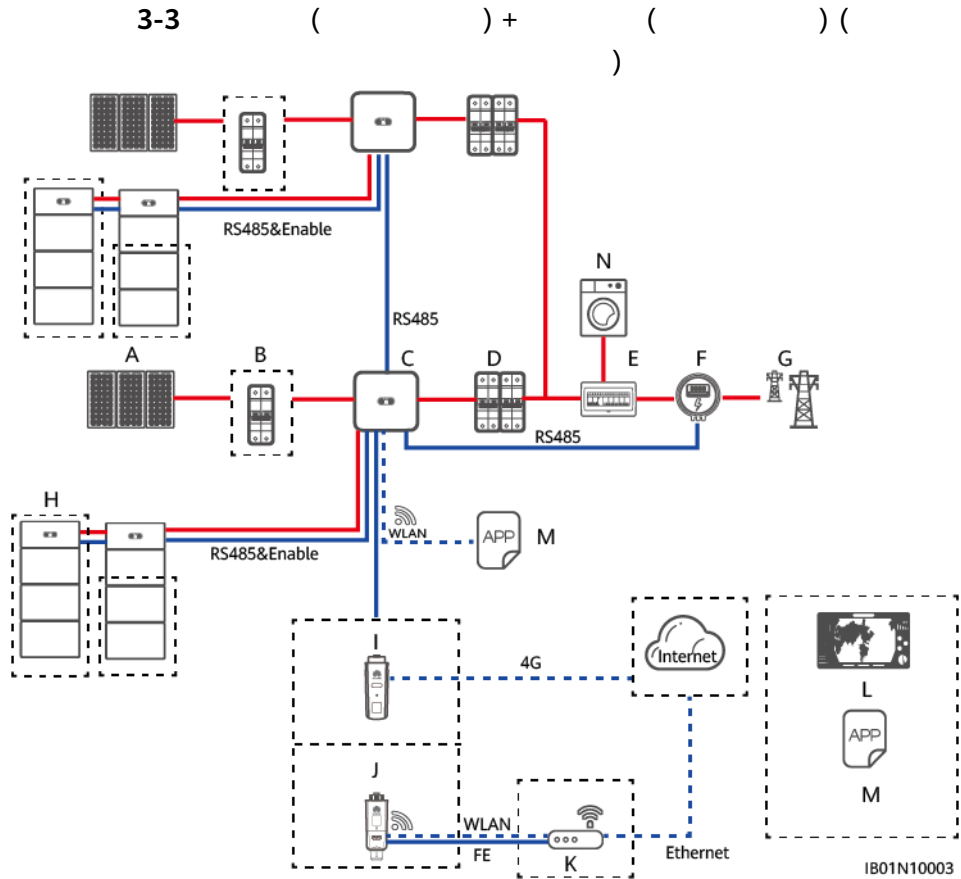


3-1

	SUN2000-1	SUN2000-2
	SUN2000-(2KTL-6KTL)-L1/ SUN2000-(3KTL-10KTL)-M1	SUN2000-(2KTL-6KTL)-L1/SUN2000- (3KTL-10KTL)-M1

NOTE

- 3:
- () + () ()
 - RS485
 - ESS «
 - » TOU (), Smart
 - Dongle.
 - Smart
 - Dongle



3-2

	SUN2000-1	SUN2000-2
	SUN2000-(2KTL-6KTL)-L1/SUN2000-(3KTL-10KTL)-M1	SUN2000-(2KTL-6KTL)-L1/SUN2000-(3KTL-10KTL)-M1

NOTE

- | | | |
|--------------------------|--------------|------------------------|
| (A) PV | (B) DC | (C) SUN2000 |
| (D) AC | (E) ACDU | (F) Smart Power Sensor |
| (G) | (H) LUNA2000 | (I) 4G Smart Dongle |
| (J) WLAN-FE Smart Dongle | (K) | (L) FusionSolar |
| (M) FusionSolar app | (N) | |

NOTE

— indicates a power cable, — indicates a signal cable, ····· indicates wireless communication.

3.1.2

ESS

ESS

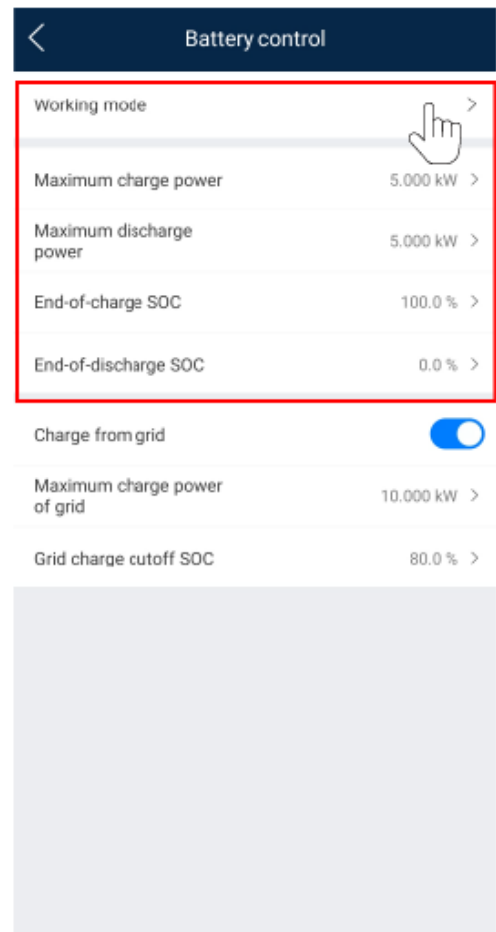
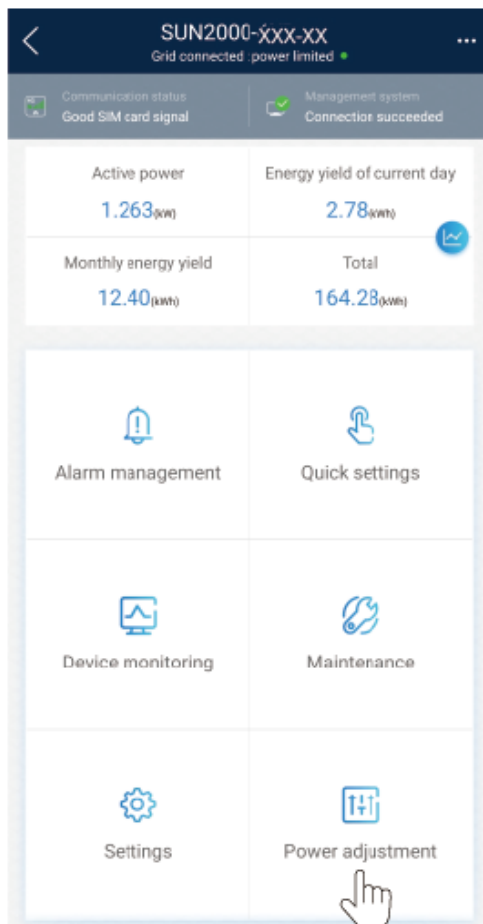
FIT

Huawei LUNA2000 — 15%.

100%.

6.3

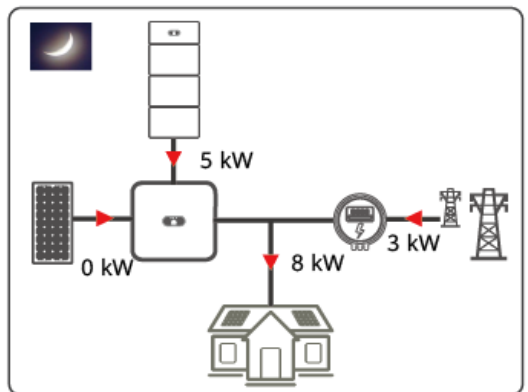
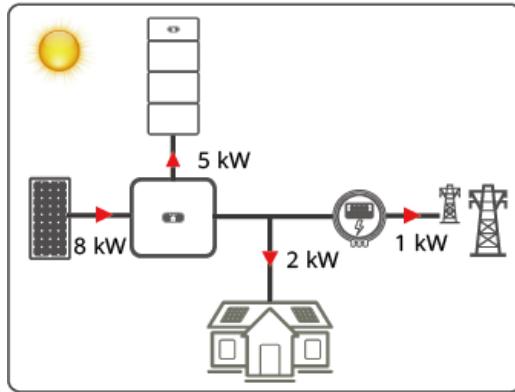
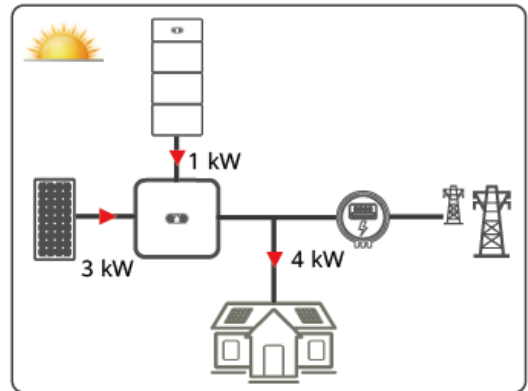
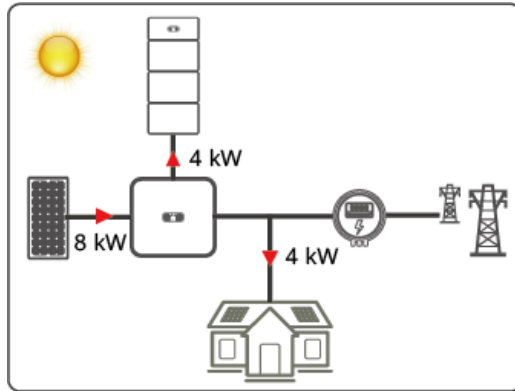
3-4



		<ul style="list-style-type: none"> • • •
()	2,5	• [0,]
()	2,5	• [0,]
SOC (%)		90%–100%
SOC (%)		0%–20%

- :
- (1) 8 , 4 , 4 ,
- (2) , PV 3 ,
- 1

3-5



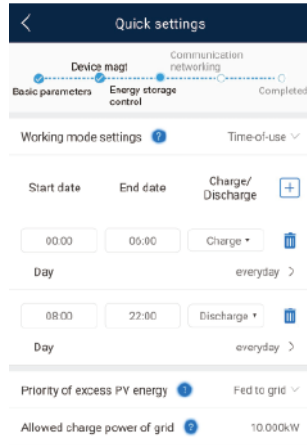
IB01N00001

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14

6.3

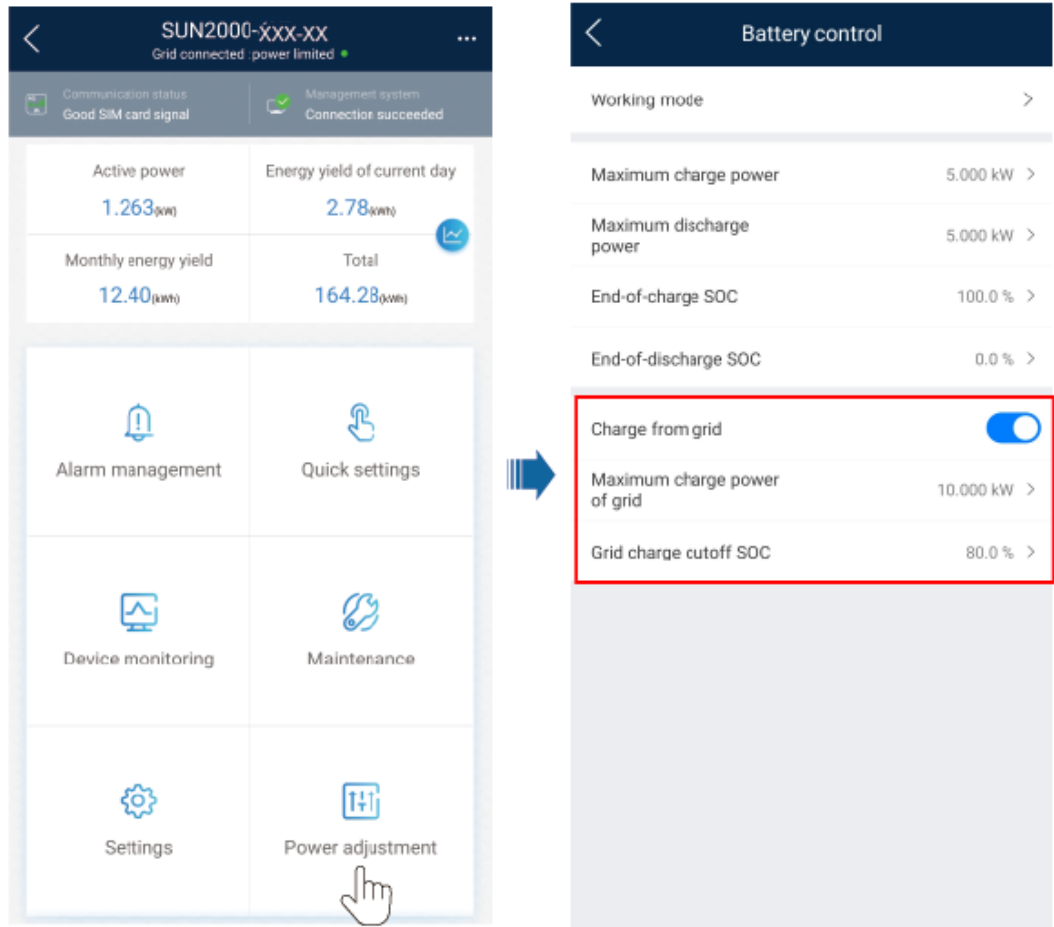
3-6



3-3

	<p>•</p> <p>:</p> <p>,</p> <p>.</p> <p>FIT</p>	<p>•</p> <p>•</p>
()	<p>,</p> <p>.</p> <p>ESS</p>	<p>• [0,</p> <p>,</p> <p>]</p>

3-7

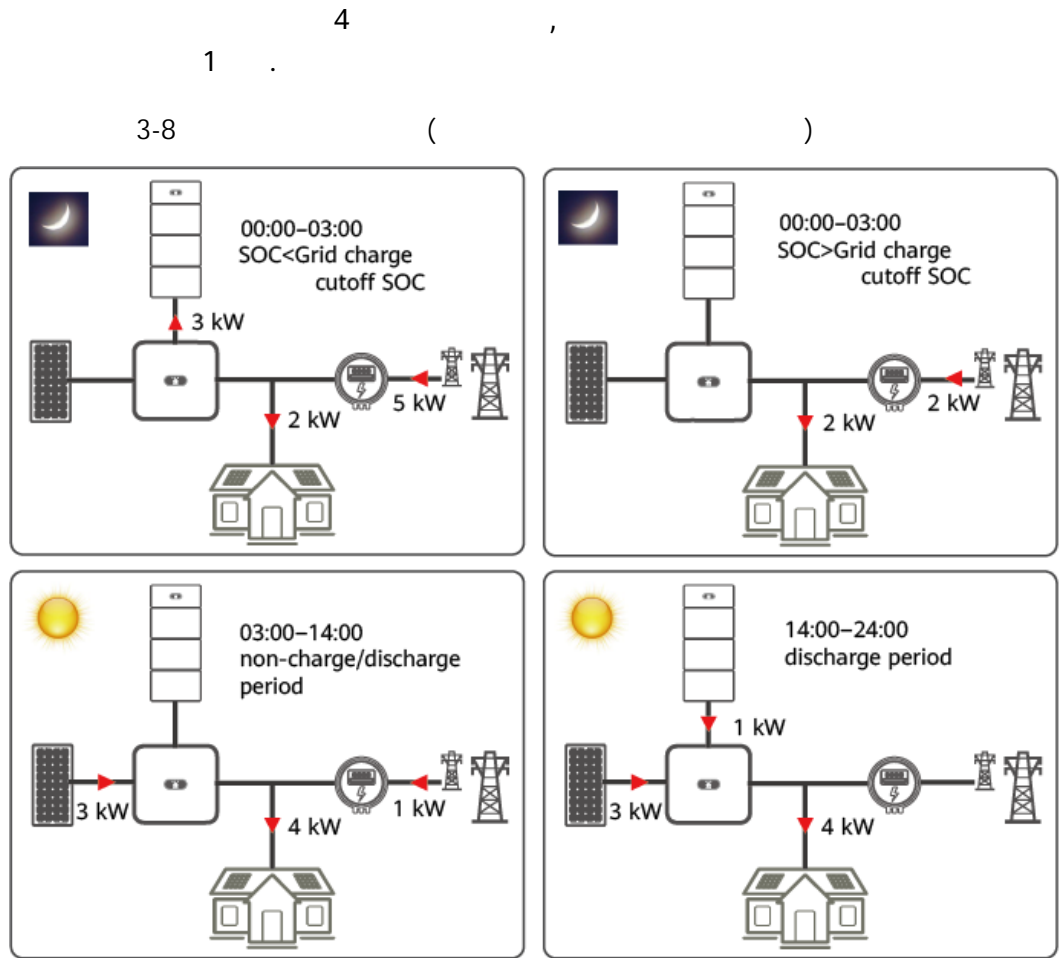


3-4

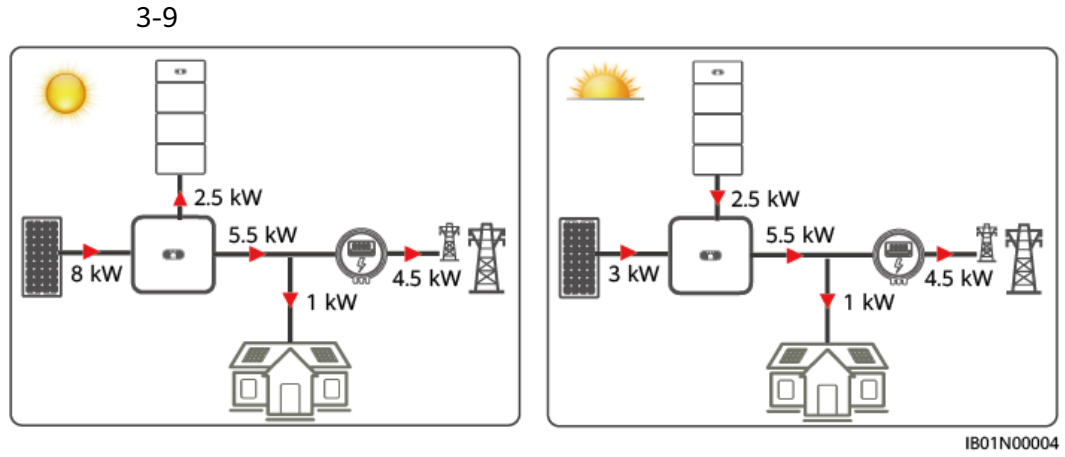
		<ul style="list-style-type: none"> • •
SOC	(SOC).	[20%, 100%]

14:00, (14:00 24:00) , 03:00

3 ,



- -
 -
- 6.3
- :
- 8
- SUN2000-5KTL
- 5,5 , 2,5 . 3 ,
- 2,5 , 5,5 .



3.2

ESS

ESS

. ESS,

3.2.1

ESS

1:

+

ESS

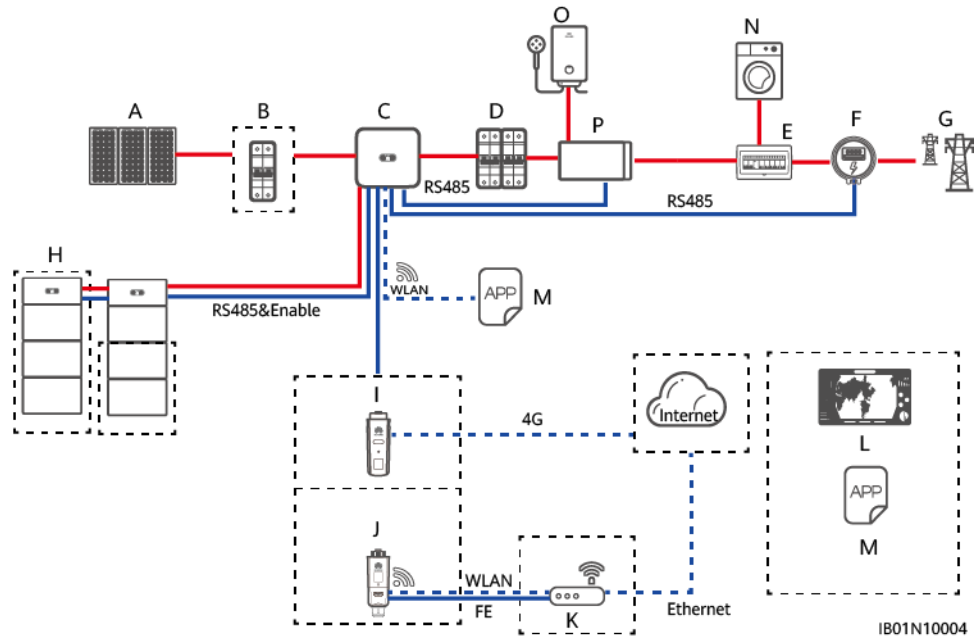
LUNA2000,

, PDU,

Backup Box.

3-10

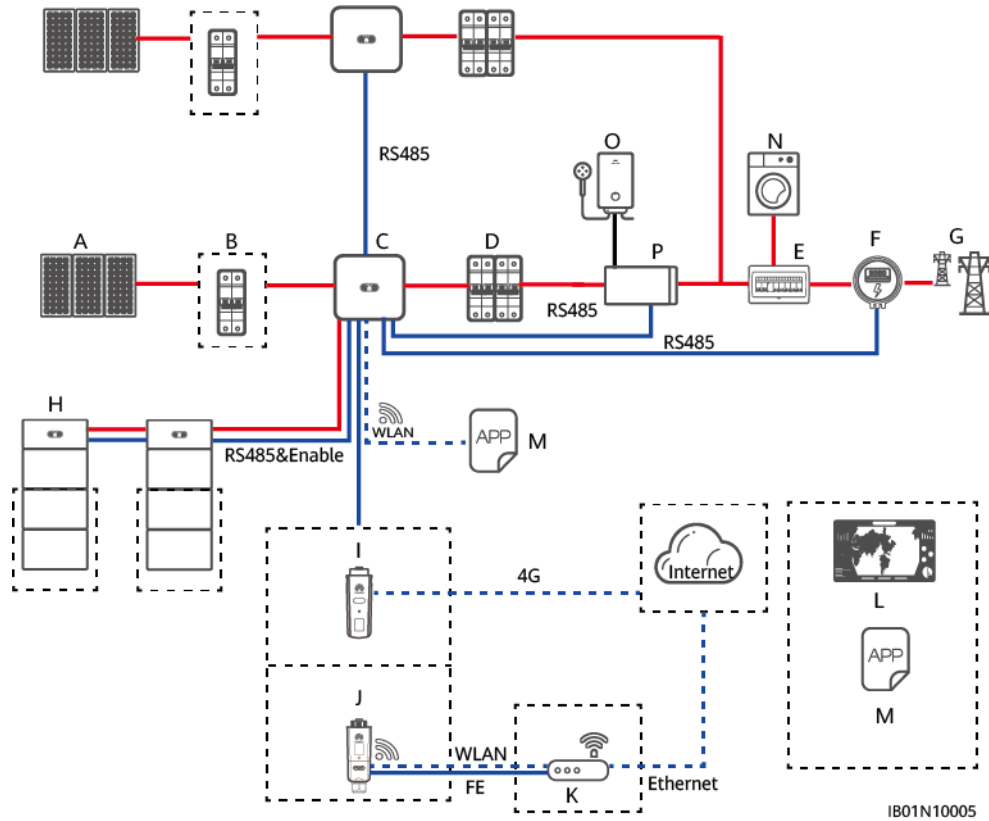
ESS ()



NOTE

2: () + ()
 ESS
 . Backup Box

3-11 () + () ()



NOTE

3: () + () ESS.
Smart Dongle

(P) Backup

NOTE

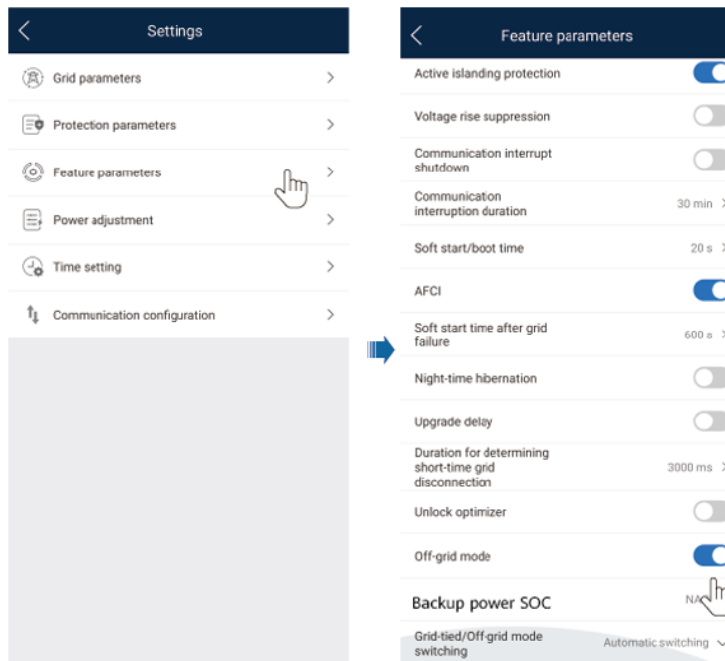
— indicates a power cable, — indicates a signal cable, ····· indicates wireless communication.

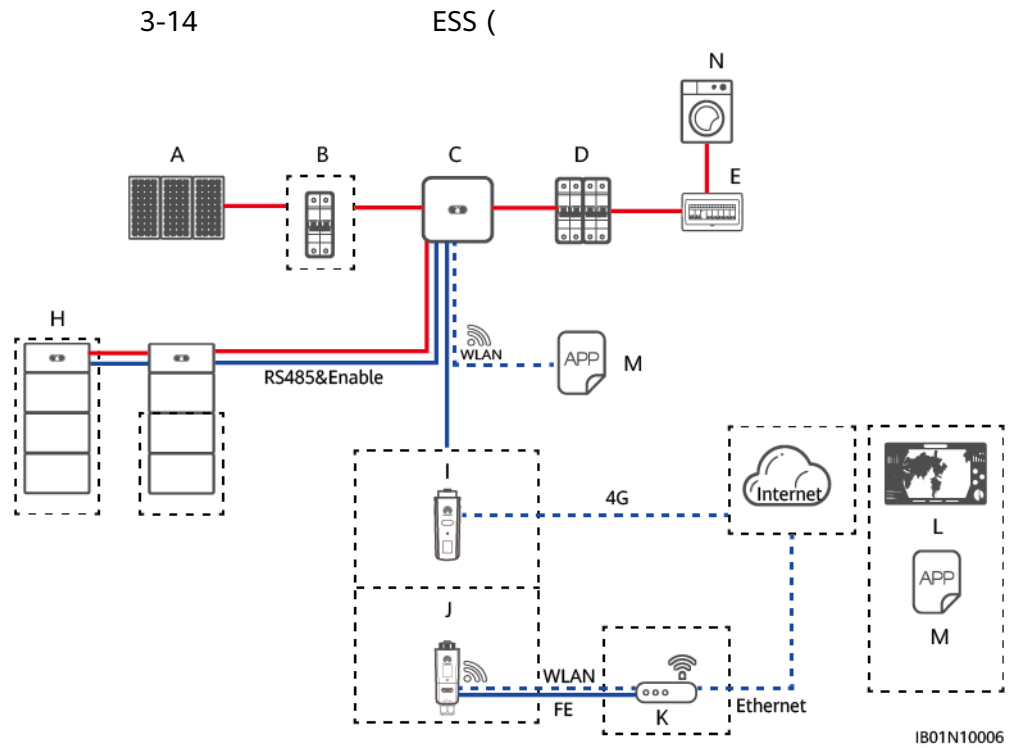
3.2.2

ESS,



3-13





- (A) PV
- (B) DC
- (C) SUN2000
- (D) AC
- (E) ACDU
- (H) LUNA2000
- (I) 4G Smart Dongle
- (J) WLAN-FE Smart Dongle
- (K)
- (L) FusionSolar
- (M) FusionSolar app
- (N)

NOTE

— indicates a power cable, — indicates a signal cable, - - - indicates wireless communication.

3.3.2 ESS Pure Off-Grid

, ESS

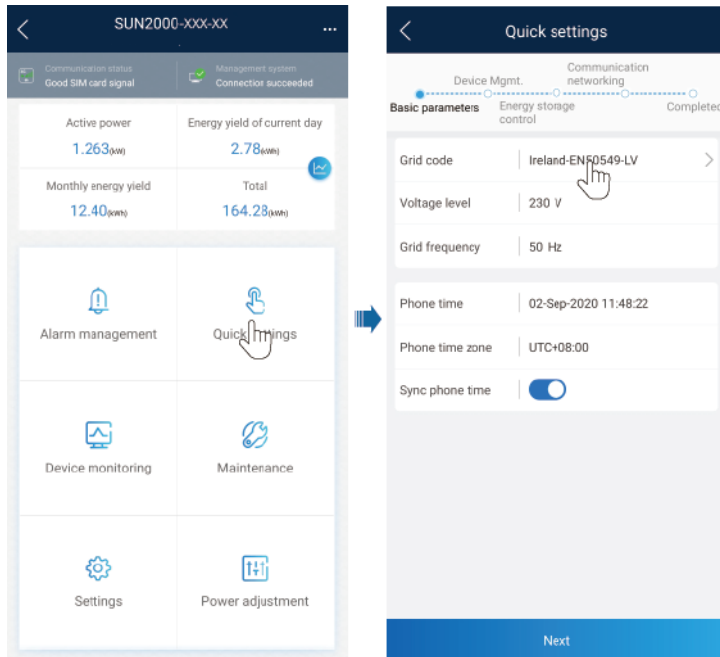
100%,

— 15%.

Huawei LUNA2000

6.3

3-15



NOTE

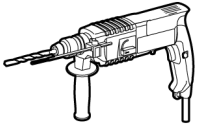
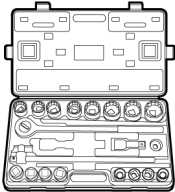
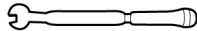
SOC.

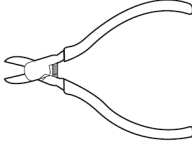
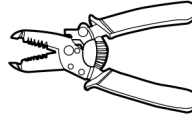
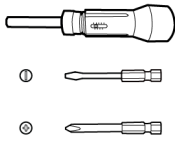

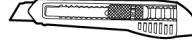

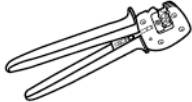





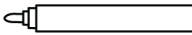
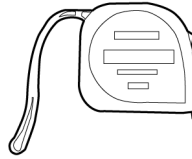

4

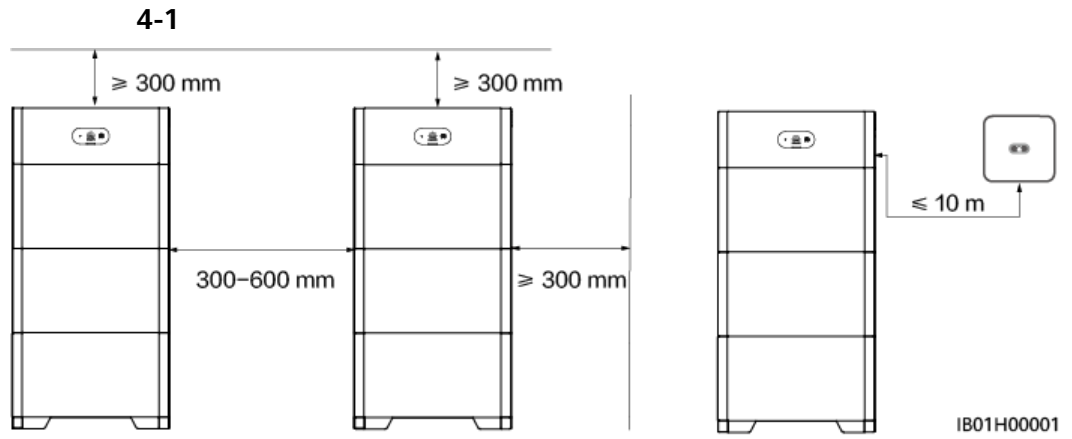
4.1

 NOTE

4.2

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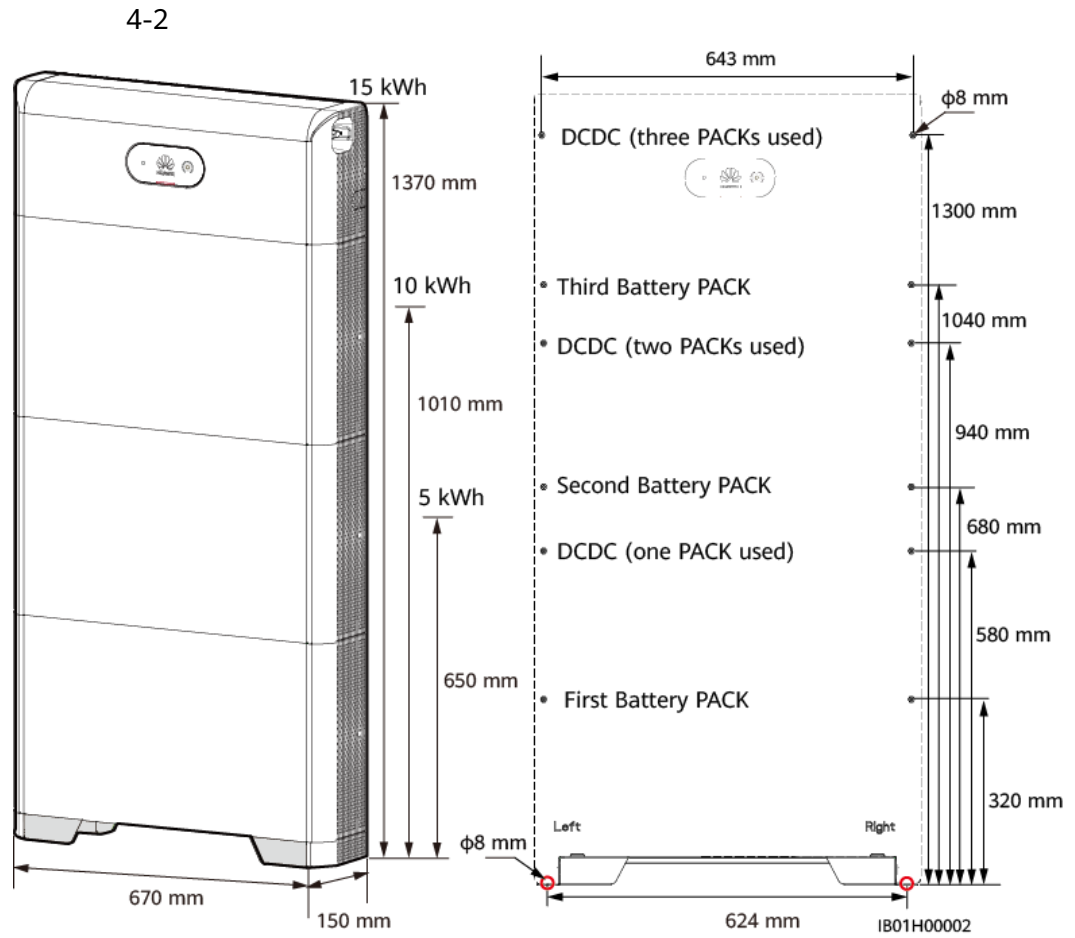
			
			
	 PV- (: CZM-22100/19100)		 PV-MS-HZ) (:
			 600) (≥
			



4.4

4.4.1

4-2



1
10-15

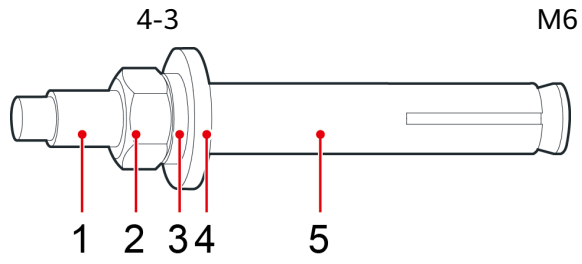
2

⚠ DANGER

📖 NOTE

M6x60,

M6



IS05W00018

(1)

(2)

(3)

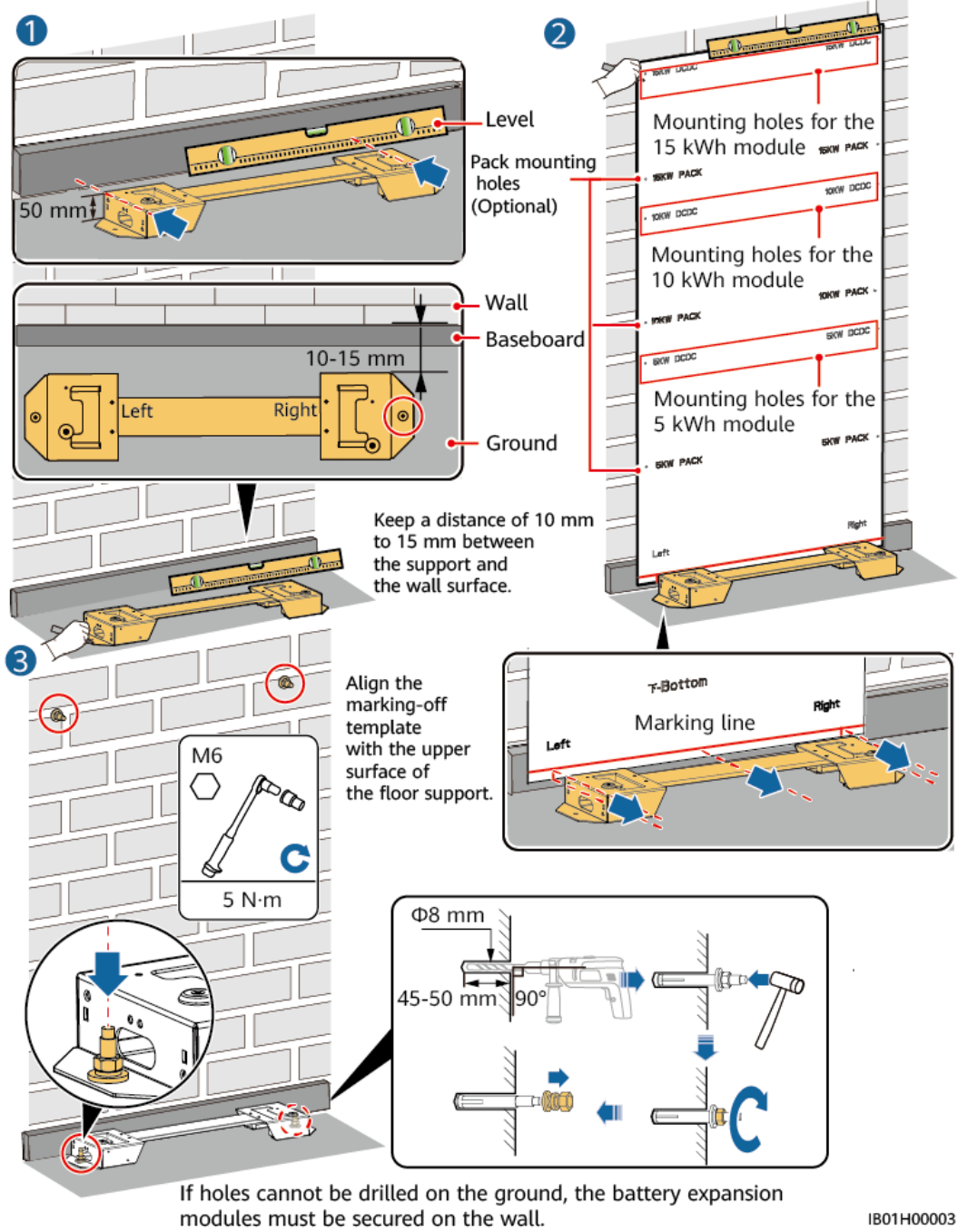
(4)

(5)

NOTICE

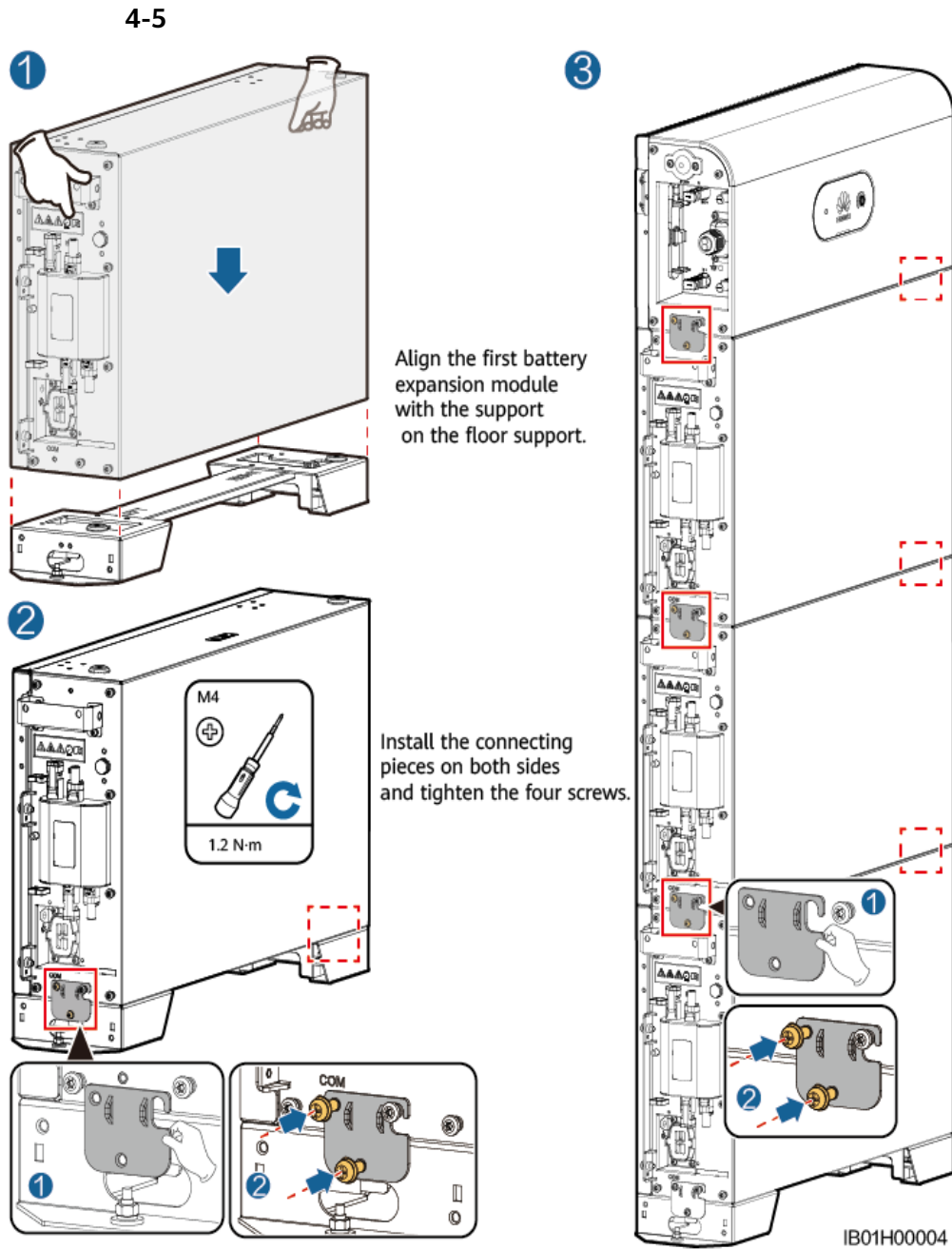
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4-4



3

WARNING



Install the remaining battery expansion modules and power control module from bottom to top.

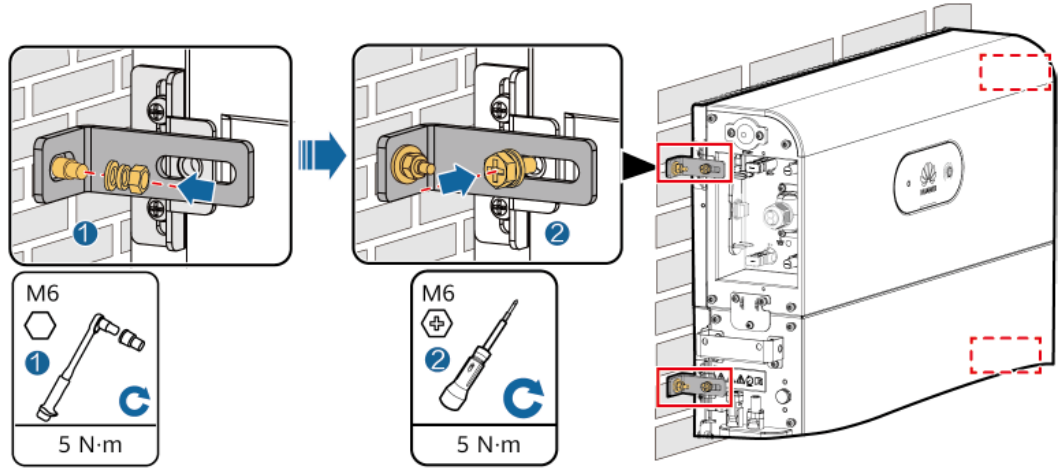
4

WARNING

(DCDC)

2

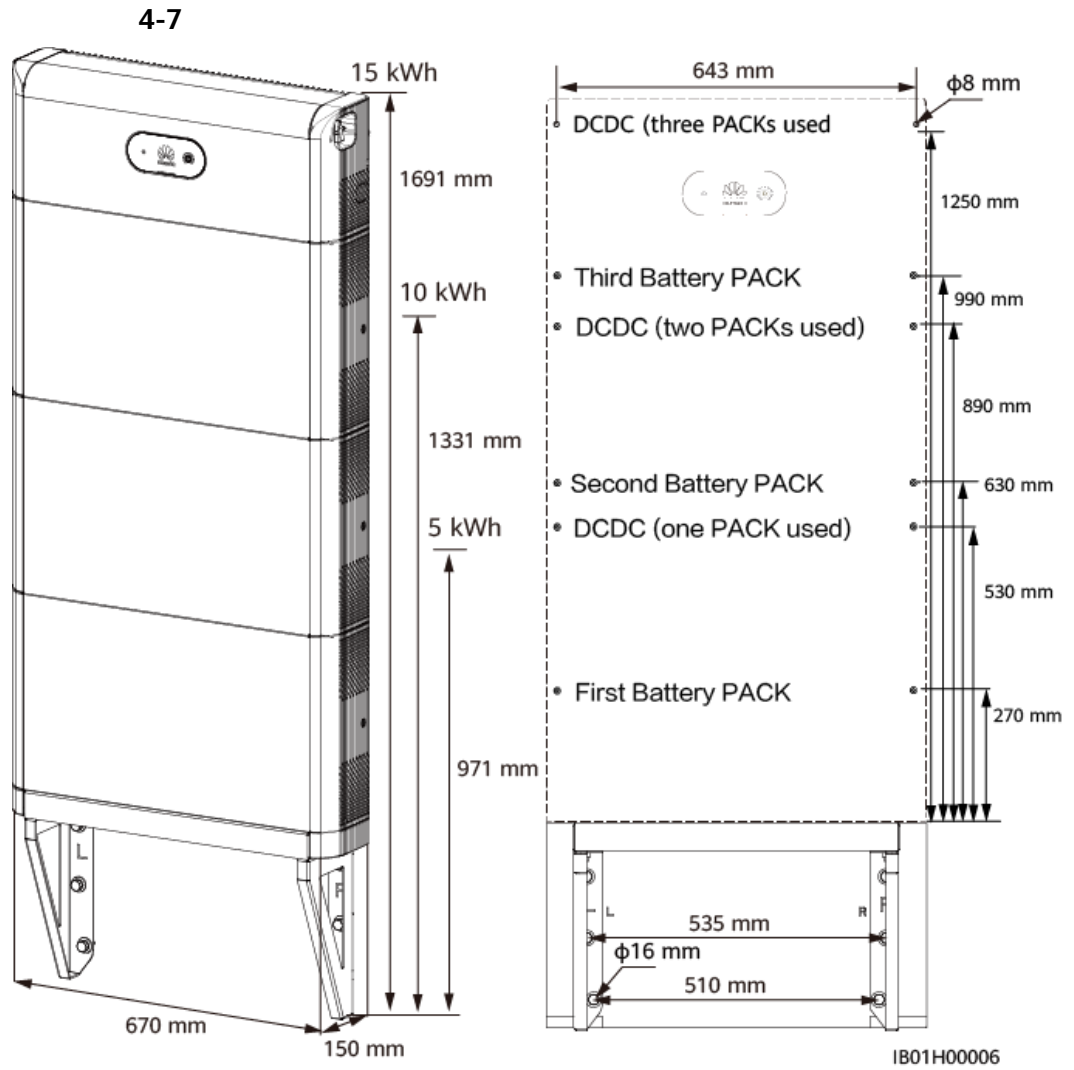
4-6



----End

4.4.2

4-7



1

2

DANGER

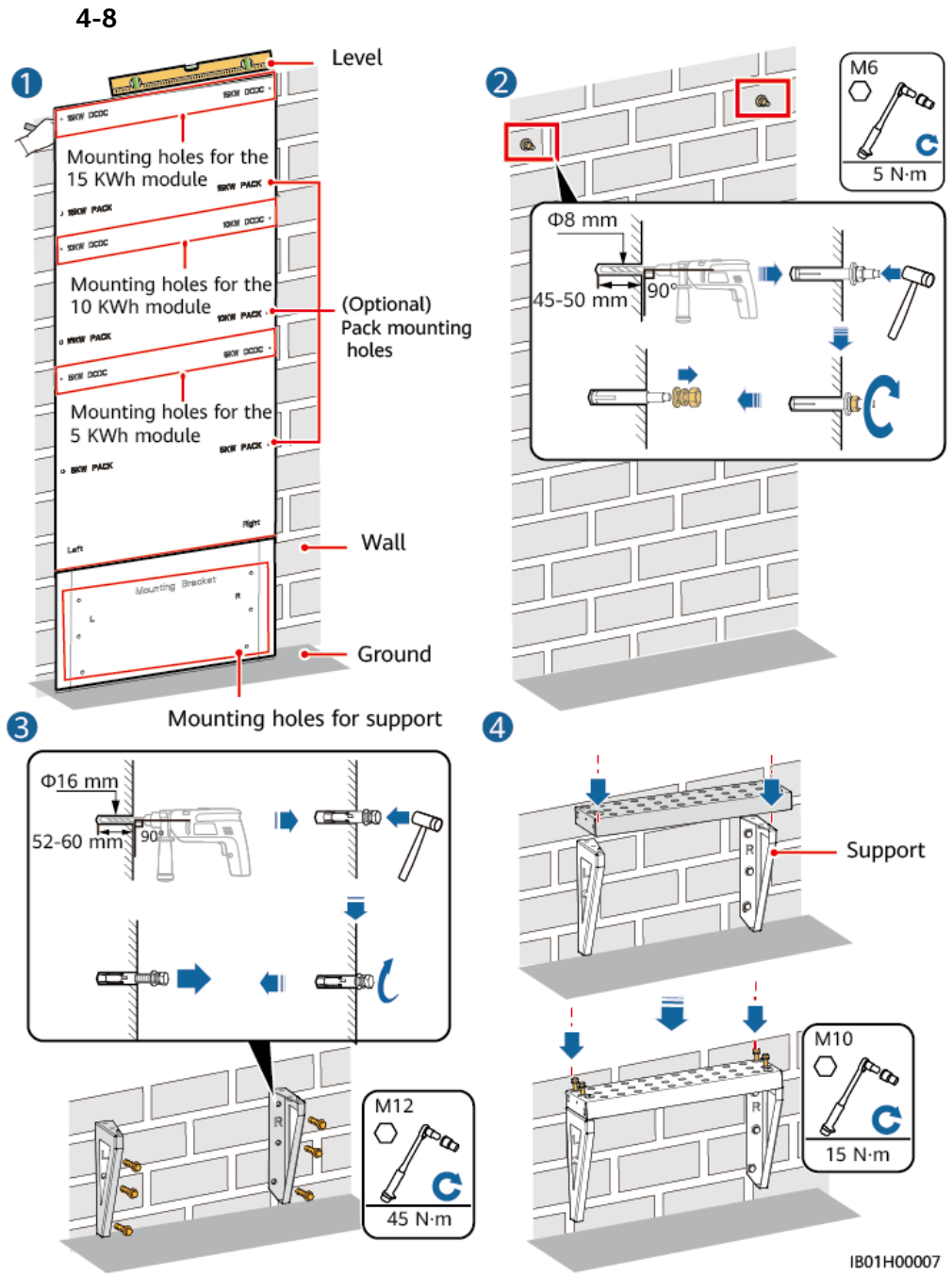
NOTE

M12x60,

12

M6x60,

M6

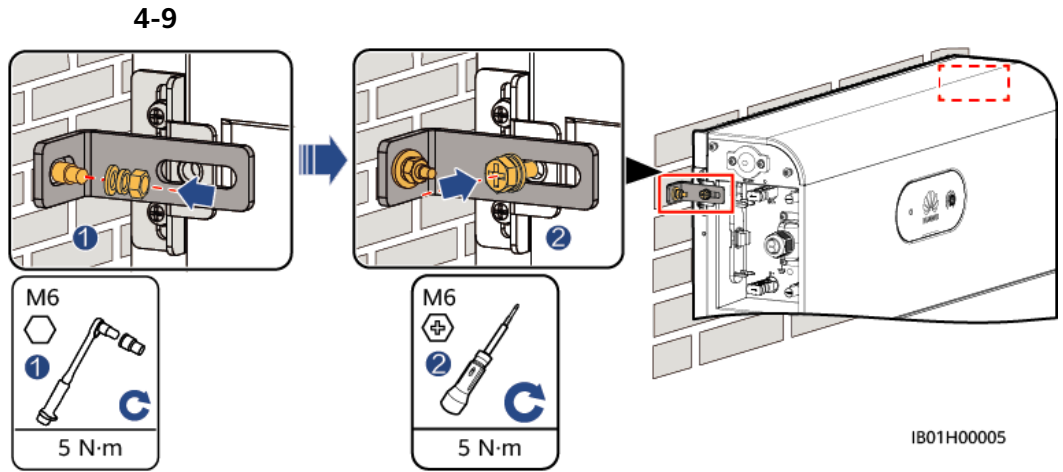


3

WARNING

4

 **WARNING**



5

 **DANGER**

 **WARNING**

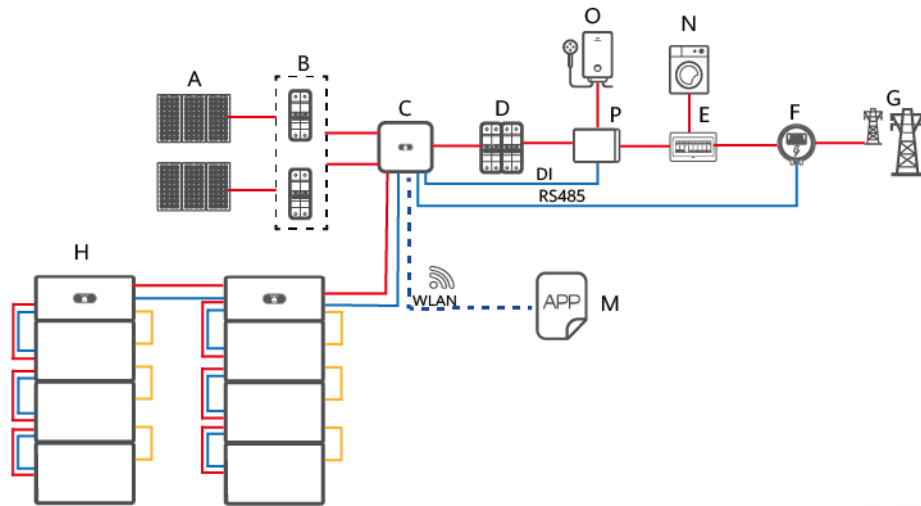
-
-
-

NOTE

(- PE).

5.1

5-1



IB01N10007

- (A) PV
- (B) DC
- (C) SUN2000
- (D) AC
- (E) ACDU
- (F) Smart Power Sensor
- (G)
- (H) LUNA2000
- (M) FusionSolar app
- (N)
- (O)
- (P)

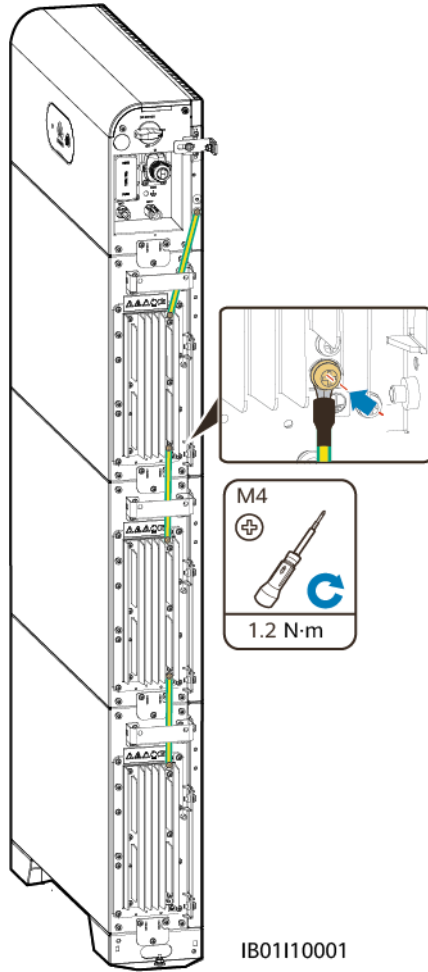
5-1

No.				
1	()		<ul style="list-style-type: none"> • 4-6 2 • 5,5-9 	
2	()	(8)	<ul style="list-style-type: none"> • : 0,20-1 • 2 • 6,2-7 	
3			<ul style="list-style-type: none"> • 10 mm² 	

NOTE

1 PE- . PE- .

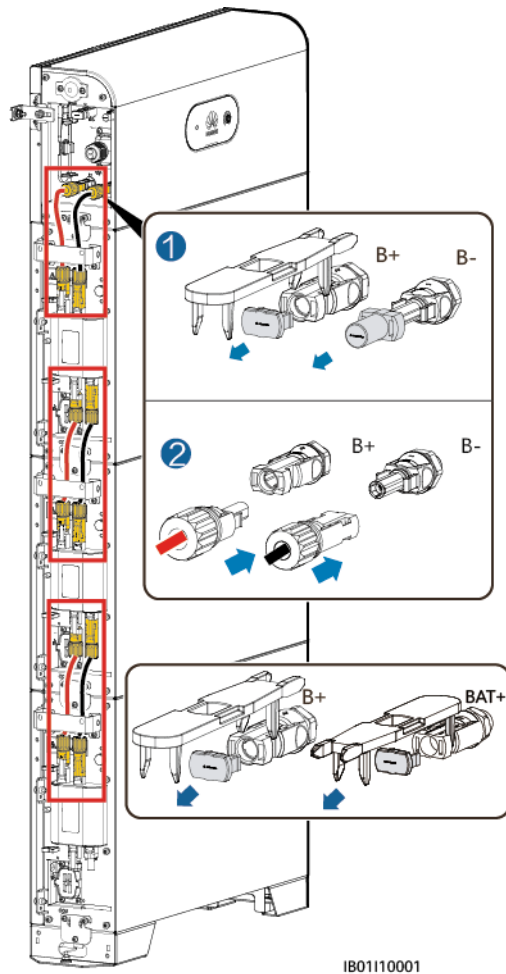
5-2 PE-



5.2.2

1 , (B+ B-).

5-3



NOTE

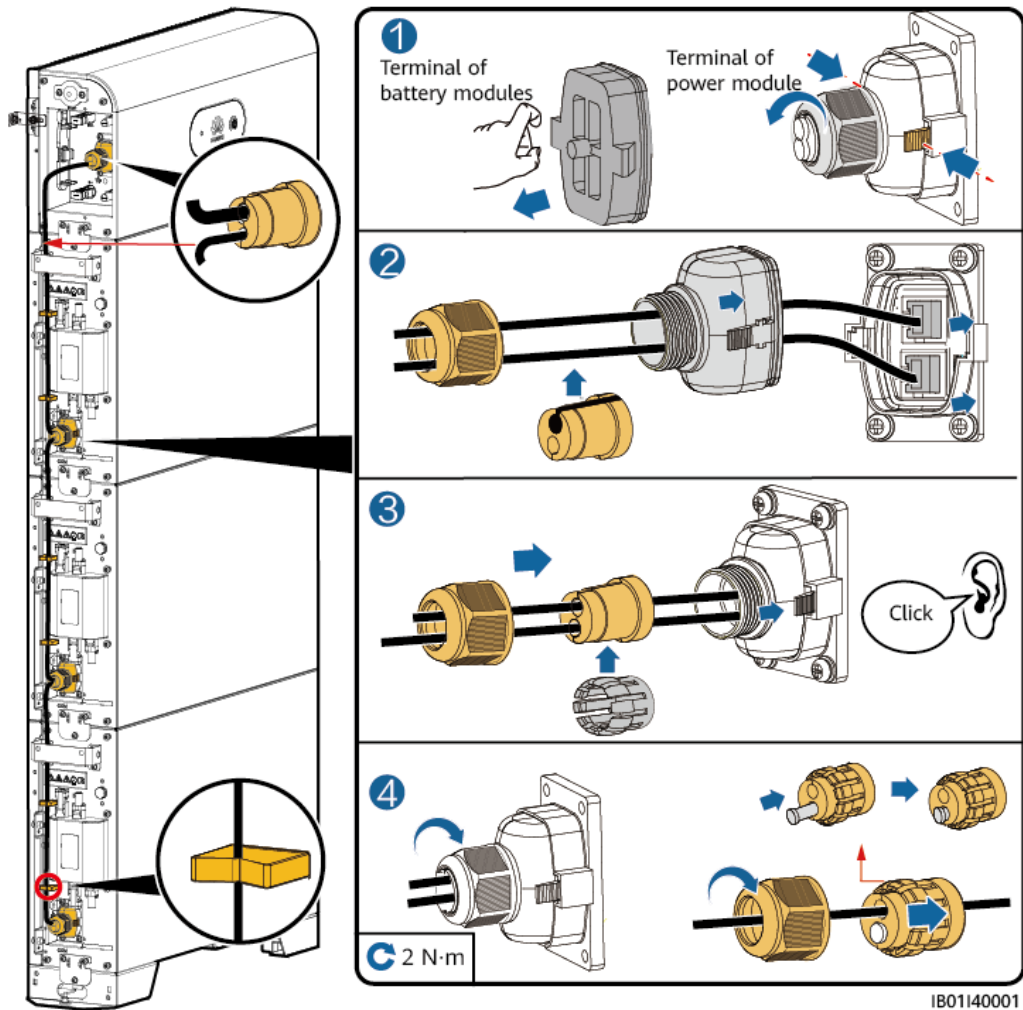
(Amphenol),

NOTICE

5.2.3

DCDC.	5	7	7
	5	Φ7	7

5-4



NOTE

5.3

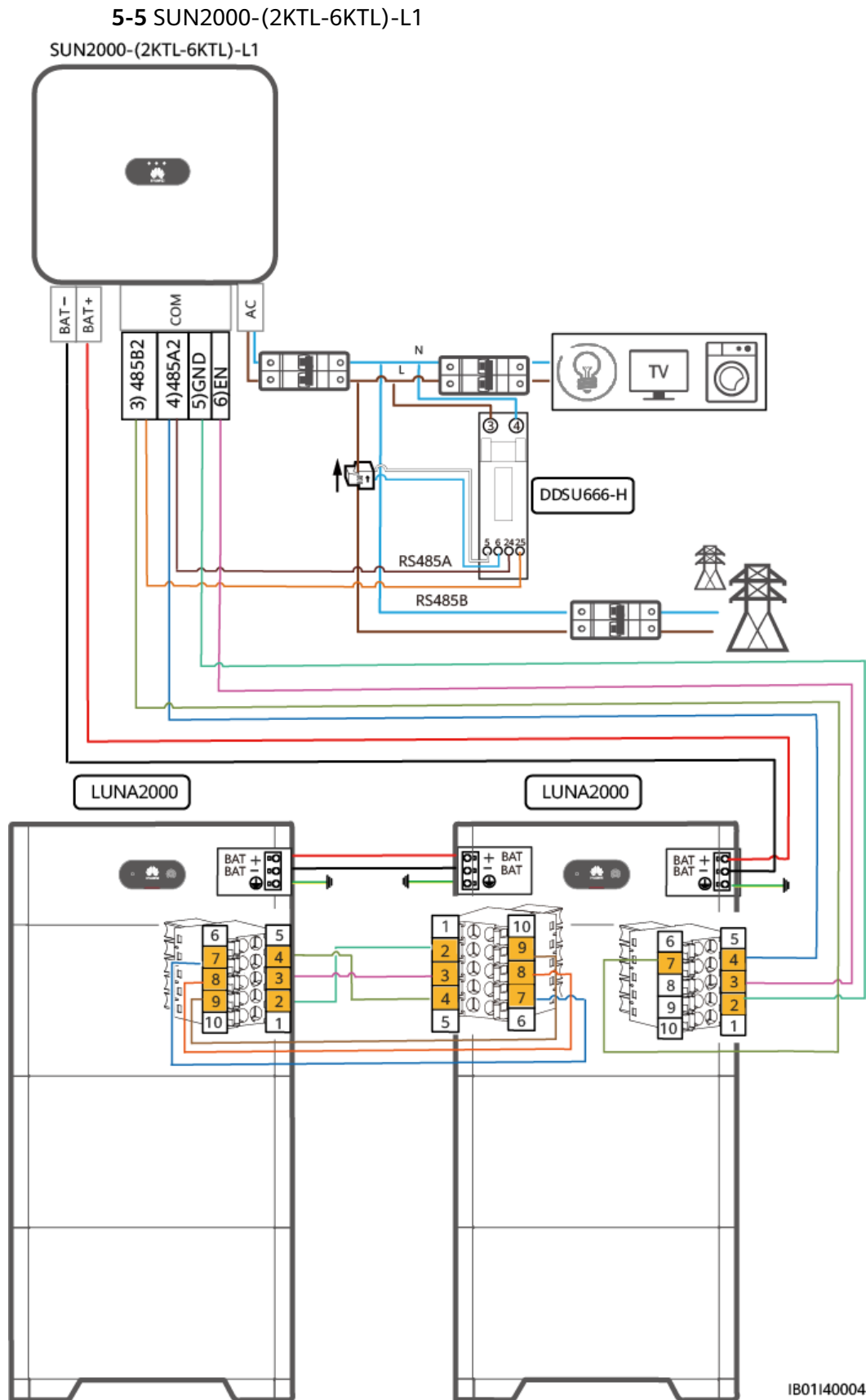
NOTE

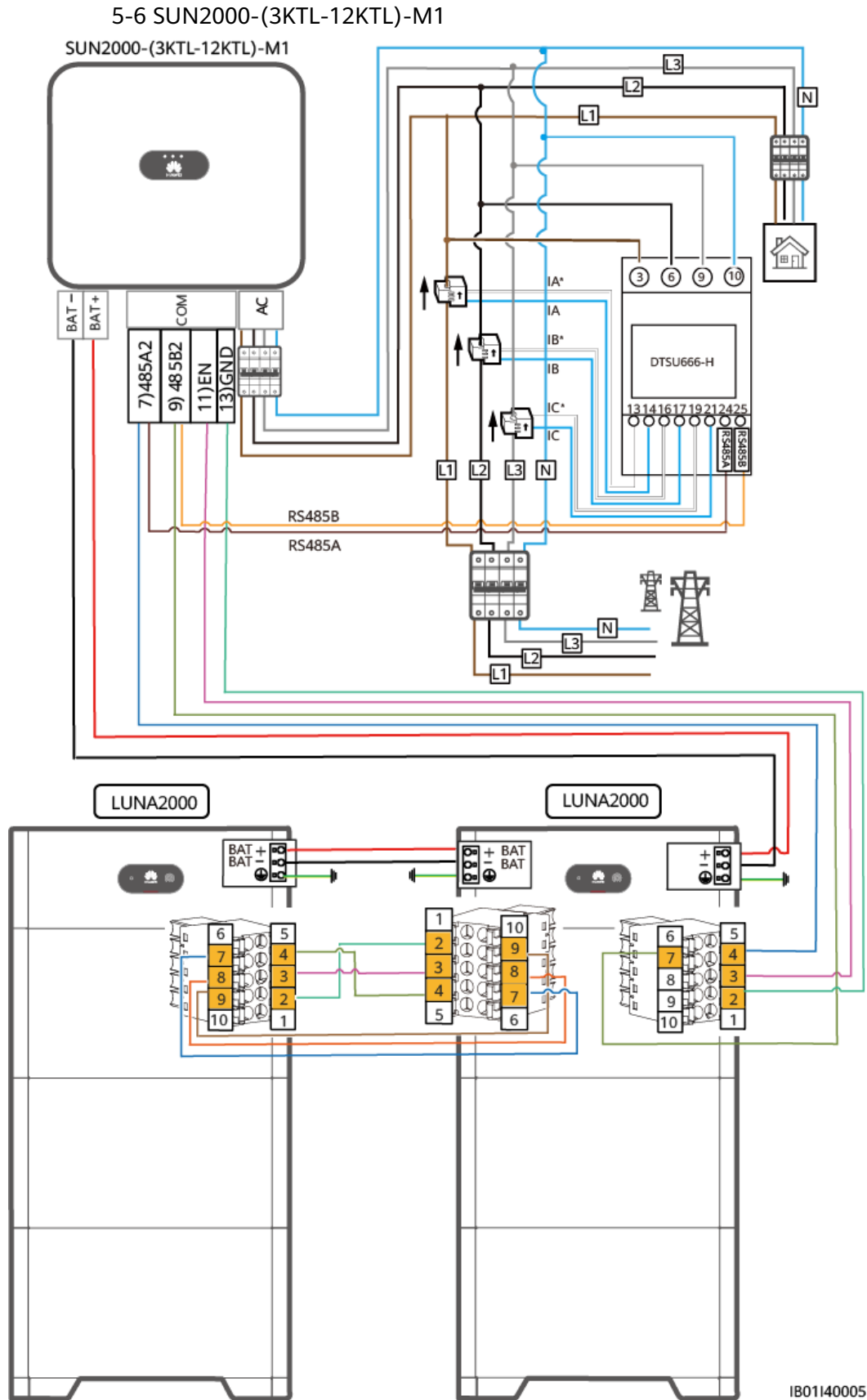
DC-DC COM- COM- COM-

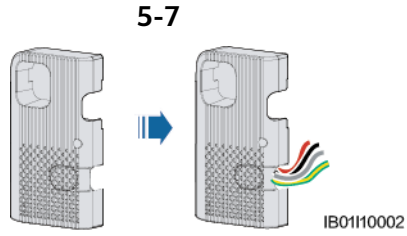
NOTICE

COM-

DC-DC
COM-







NOTICE

5.3.1

PE

⚠ DANGER

PE-

📖 NOTE

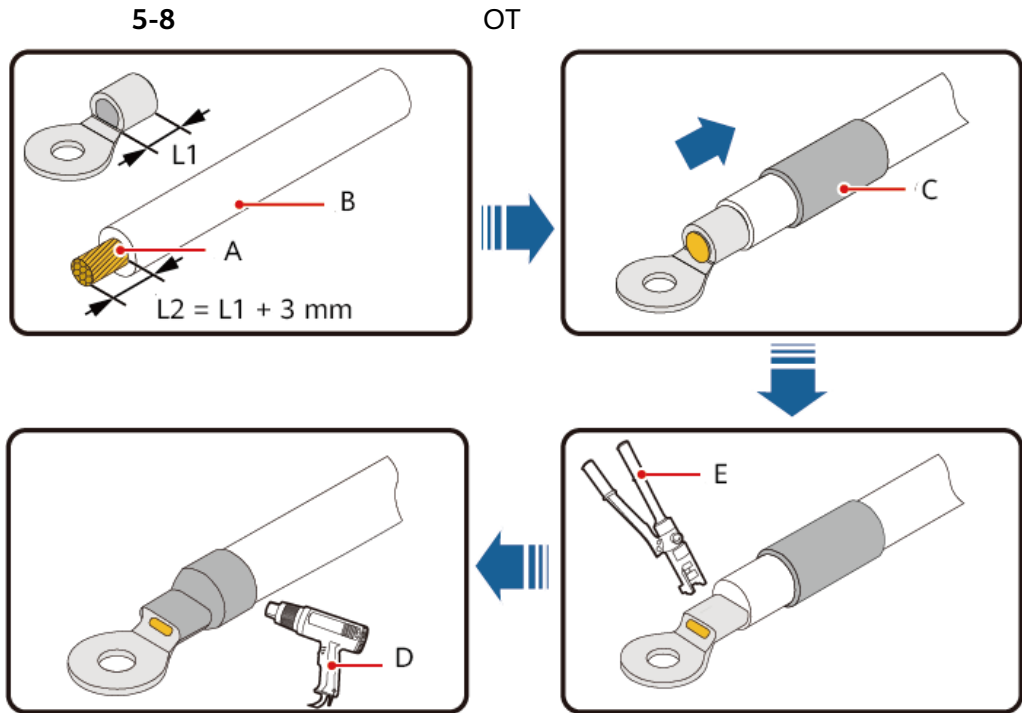
PE-

1

OT.

NOTICE

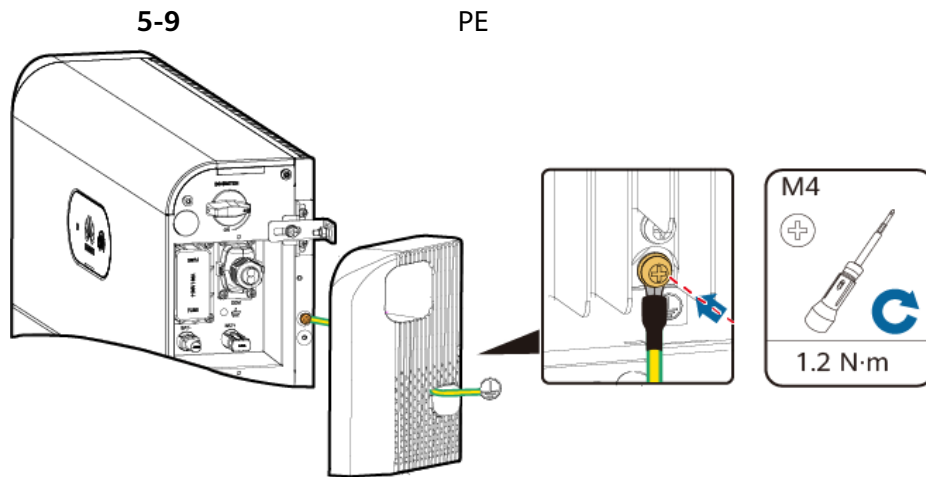
-
- , OT,
- OT.
-
-



IS05Z00001

- | | | |
|-----|-----|-----|
| (A) | (B) | (C) |
| (D) | (E) | |

2



IB01150001

NOTE

-

PE-

5.3.2

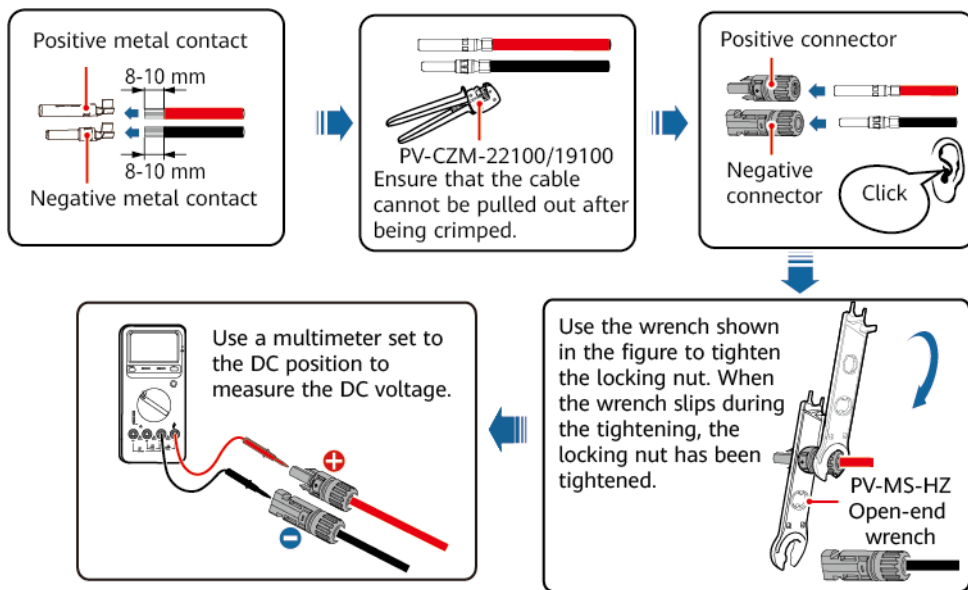
(Staubli)
(BAT+ BAT-).

NOTE

(BAT+ BAT-)

1.

5-10



CAUTION

Staubli MC4

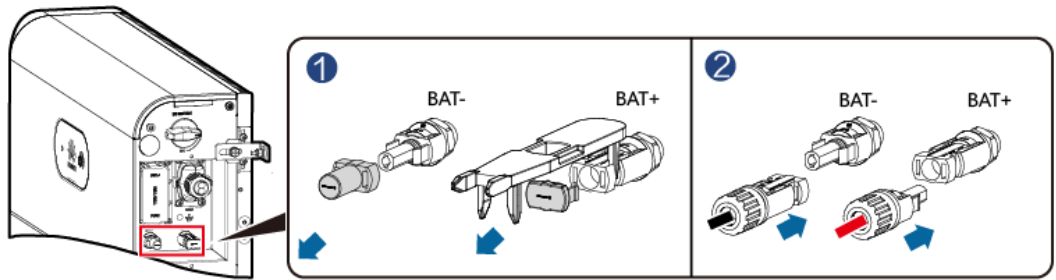
NOTICE

- BAT+ BAT-
- , , ,
- , , ,
- , , ,
- , , ,

2

(BAT+ BAT-)

5-11



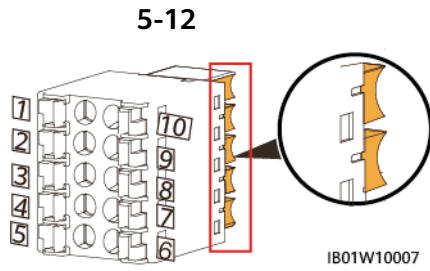
IB01130001

5.3.3

NOTICE

COM- COM-

COM- COM-



5-3 COM-

No.			
1	PE		
2	Enable-	GND	GND
3	Enable+	+	
4	485A	RS485A, RS485	RS485 +
5		+	
6	485B	RS485B, RS485	RS485 -
7		-	
8	CANL	CAN	
9	CANH	CAN	
10	PE		

NOTE

-

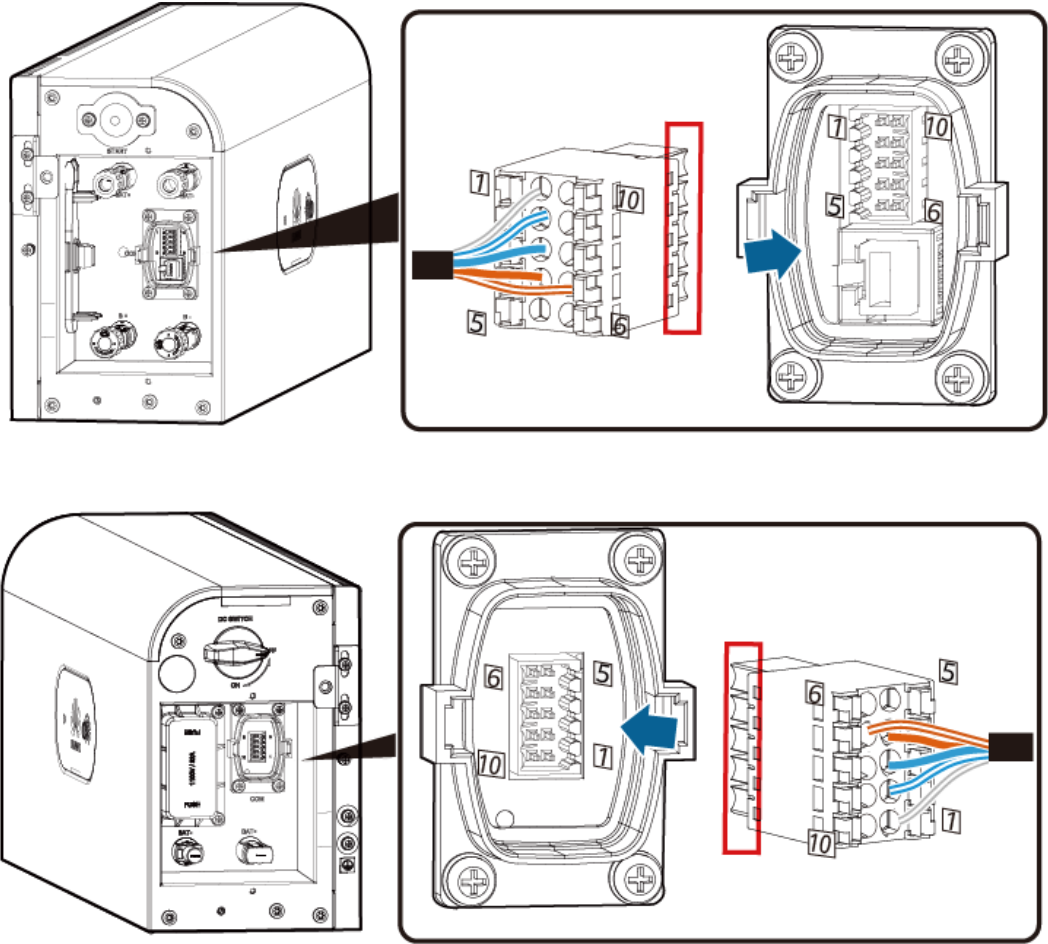
5-3.

-

\RS485-, EN+\EN- PE.

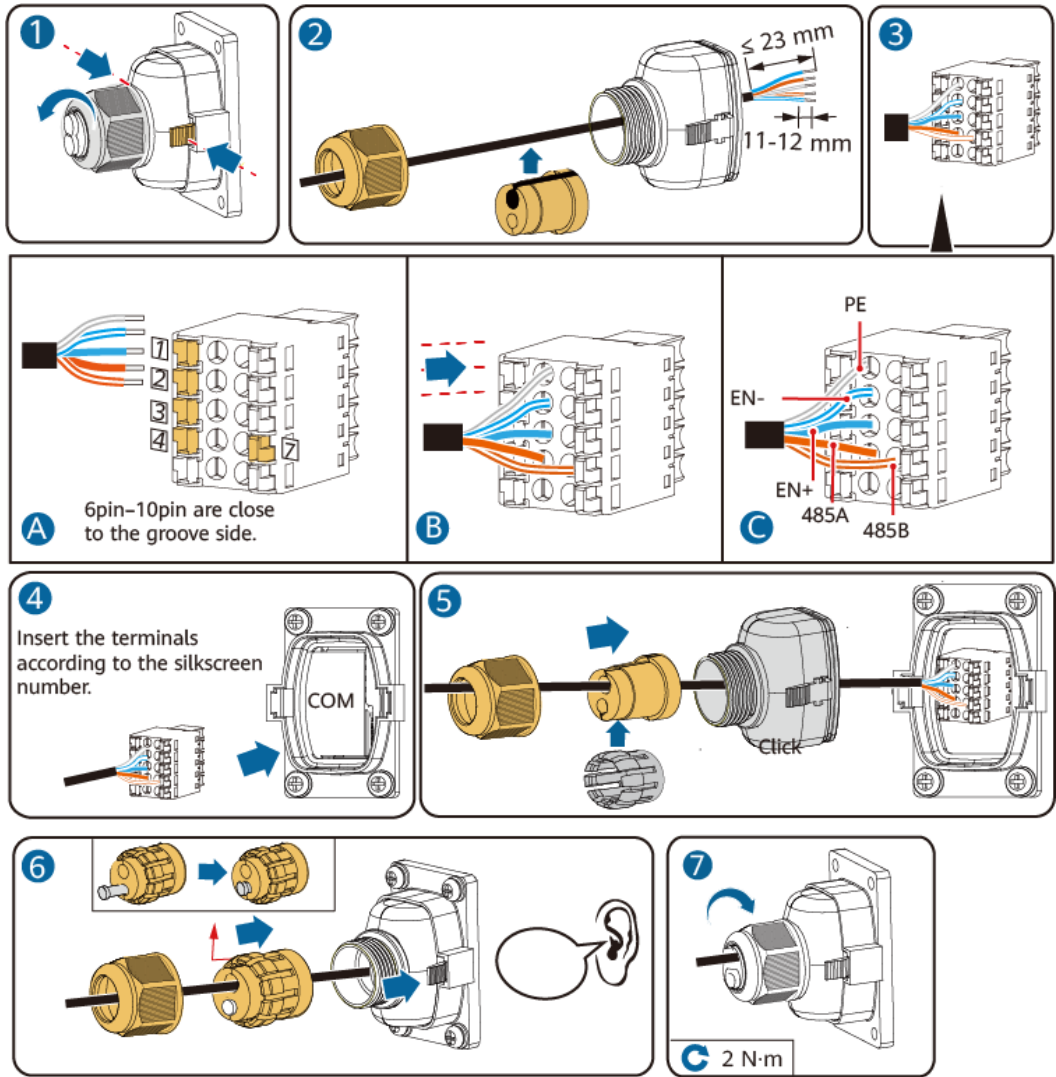
RS485+

5-13



IB01W10008

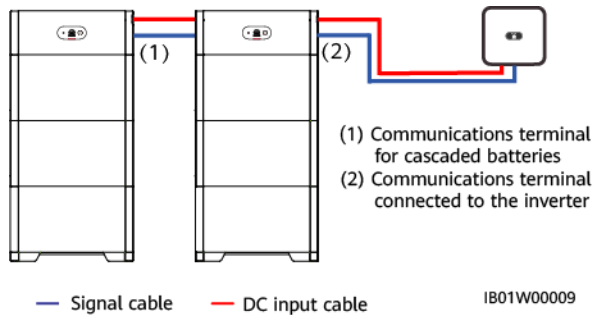
5-14



IB01140002

5.4 ()

5-15



()

(BAT+ BAT-)

5.3.2

NOTE

-

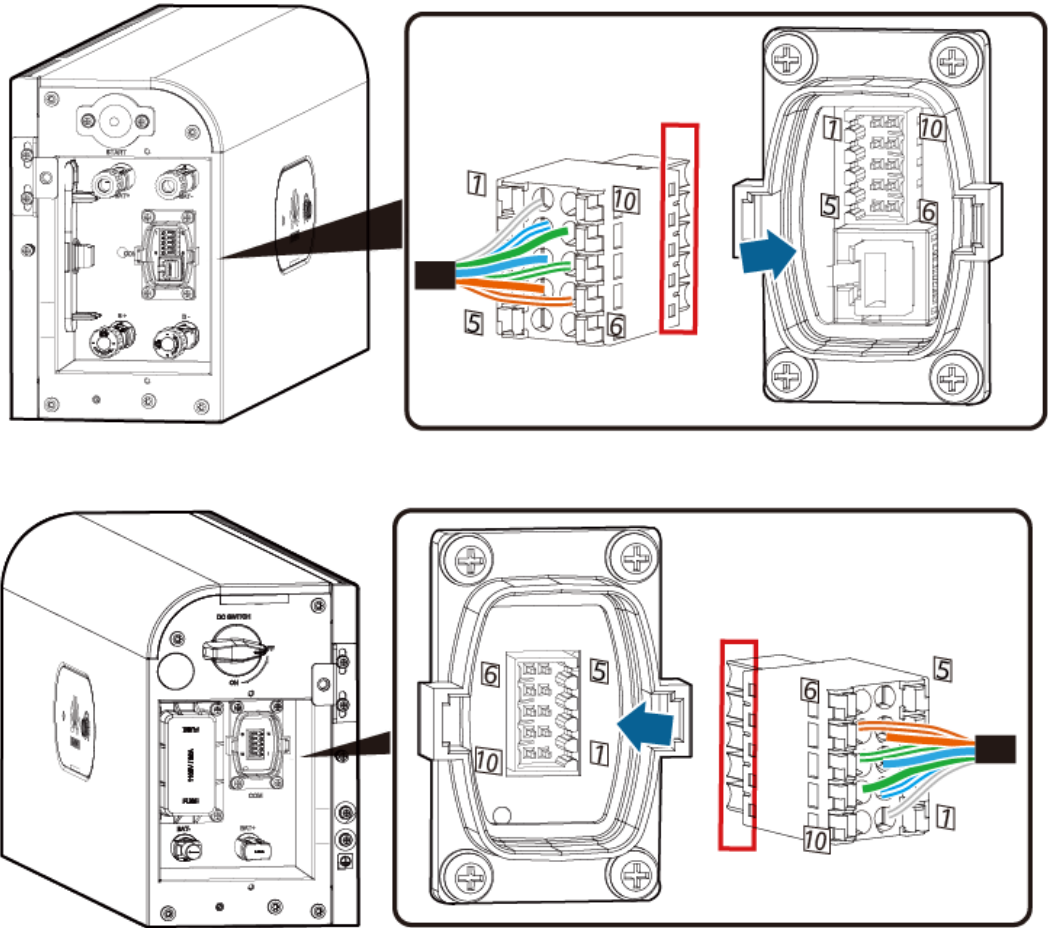
5-3.

-

\RS485-, EN+\EN-, CANH\CANL PE.

RS485+

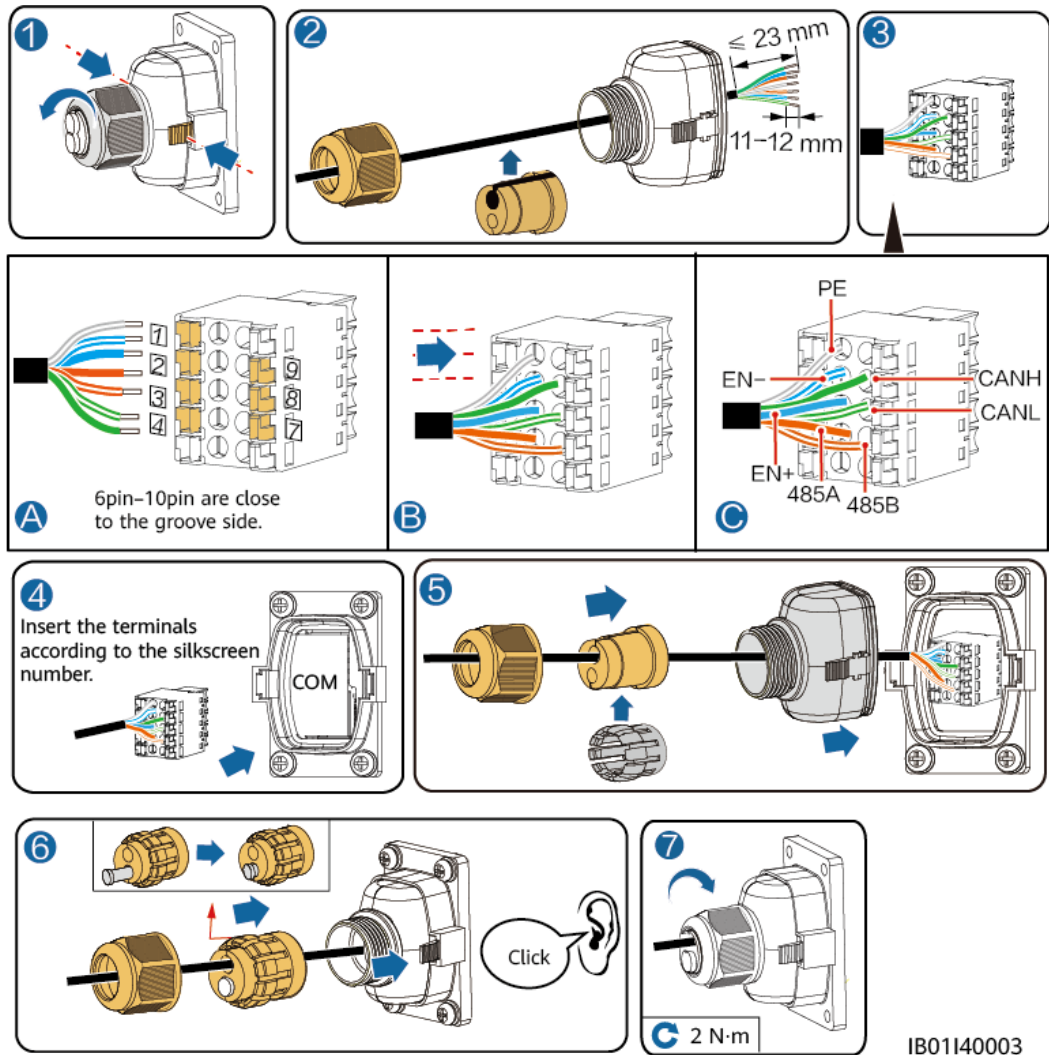
5-16



IB01W10008

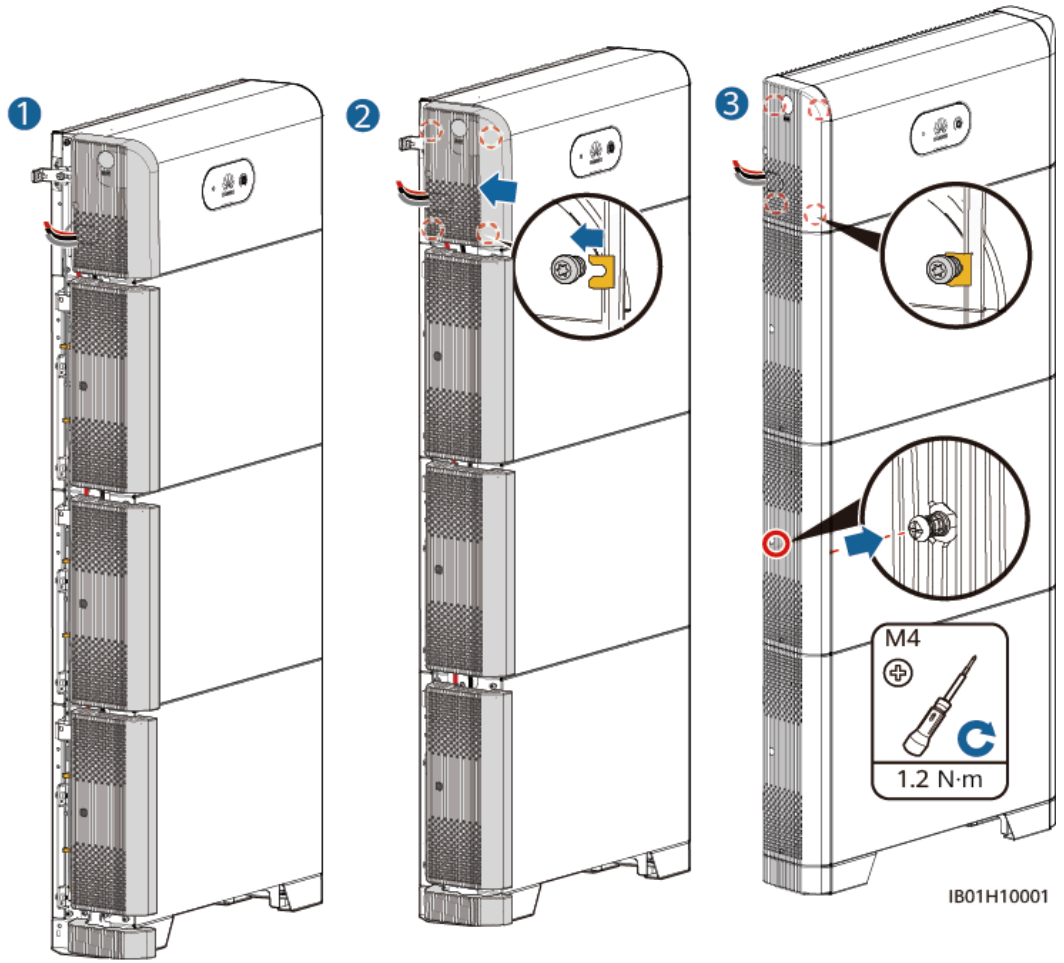
()

5-17



5.5

5-18



6

6.1

6-1




No.		
1		.
2		.
3		, .
4		PE ,
5		, , .
6		, , .
7		.
8		, .

6.2

NOTICE	
•	LUNA2000 24
•	24

 NOTE

6-2

	(: 1 ; 0,2 ; 0,2)	
	 	N/A
	N/A	
	N/A	
	N/A	
Battery system indicator		N/A

	(1 : 1 ; 0,2 : 0,2)	
		10%.

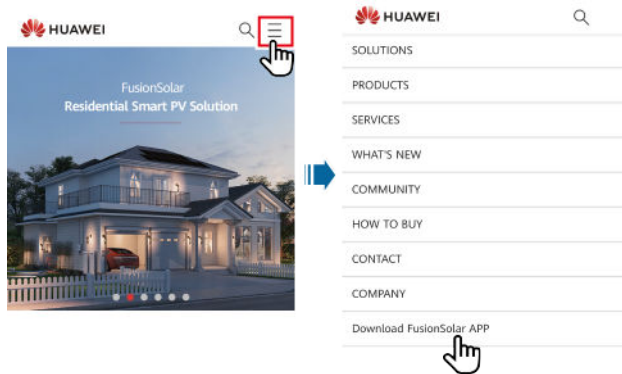
6.3

FusionSolar

<https://solar.huawei.com>

- 1.

6-1



- 2: FusionSolar Huawei AppGallery

- 3: QR-

6-2 QR-



FusionSolar

FusionSolar,

FusionSolar.

FusionSolar,

QR-

6-3

FusionSolar



6.3.1

NOTE

- , SUN2000 , Enable+/Enable-
- , SUN2000

Φ

()

Dongle

. Dongle V100R001C00SPC117
LUNA2000. Smart Dongle

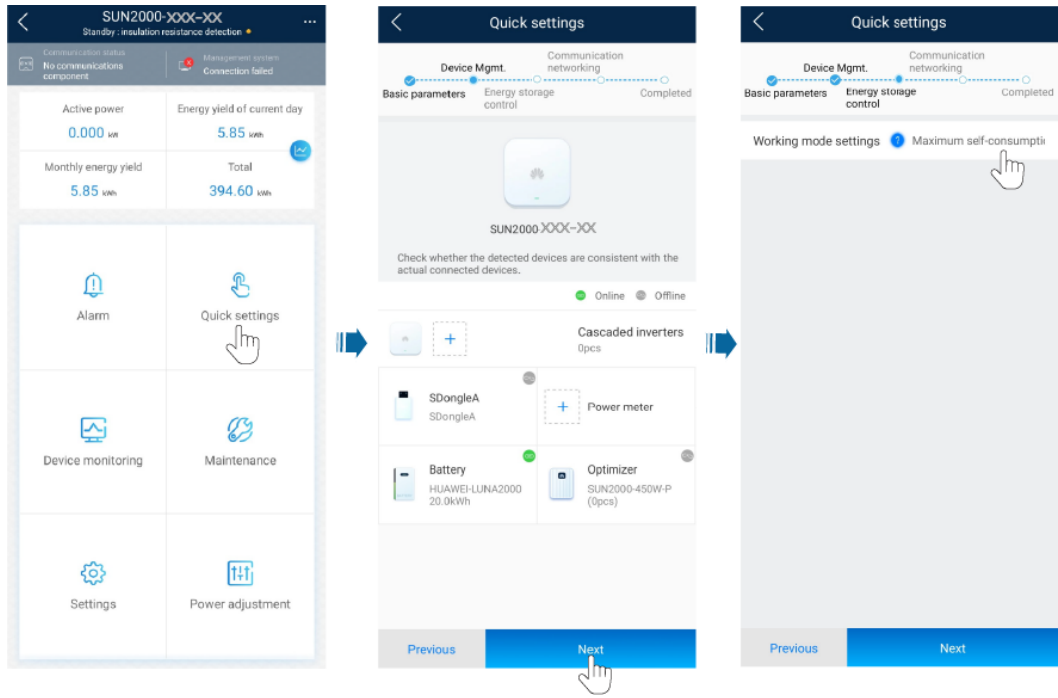
1

FusionSolar

?

3

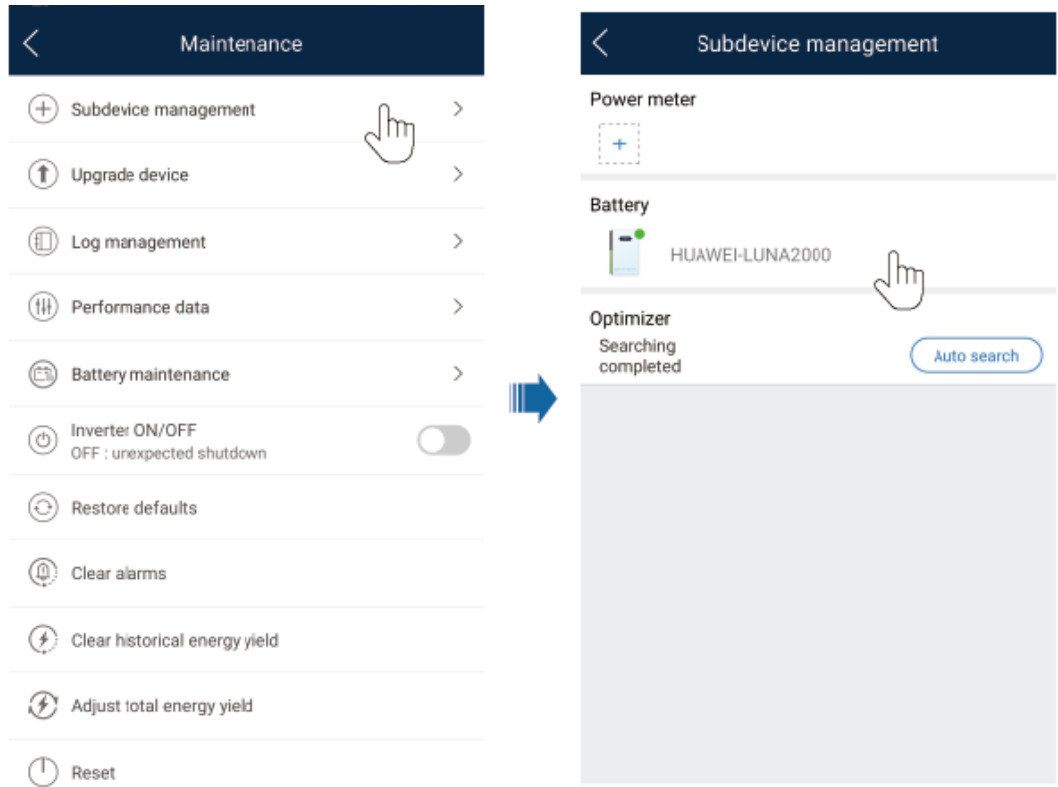
6-4



6.3.2

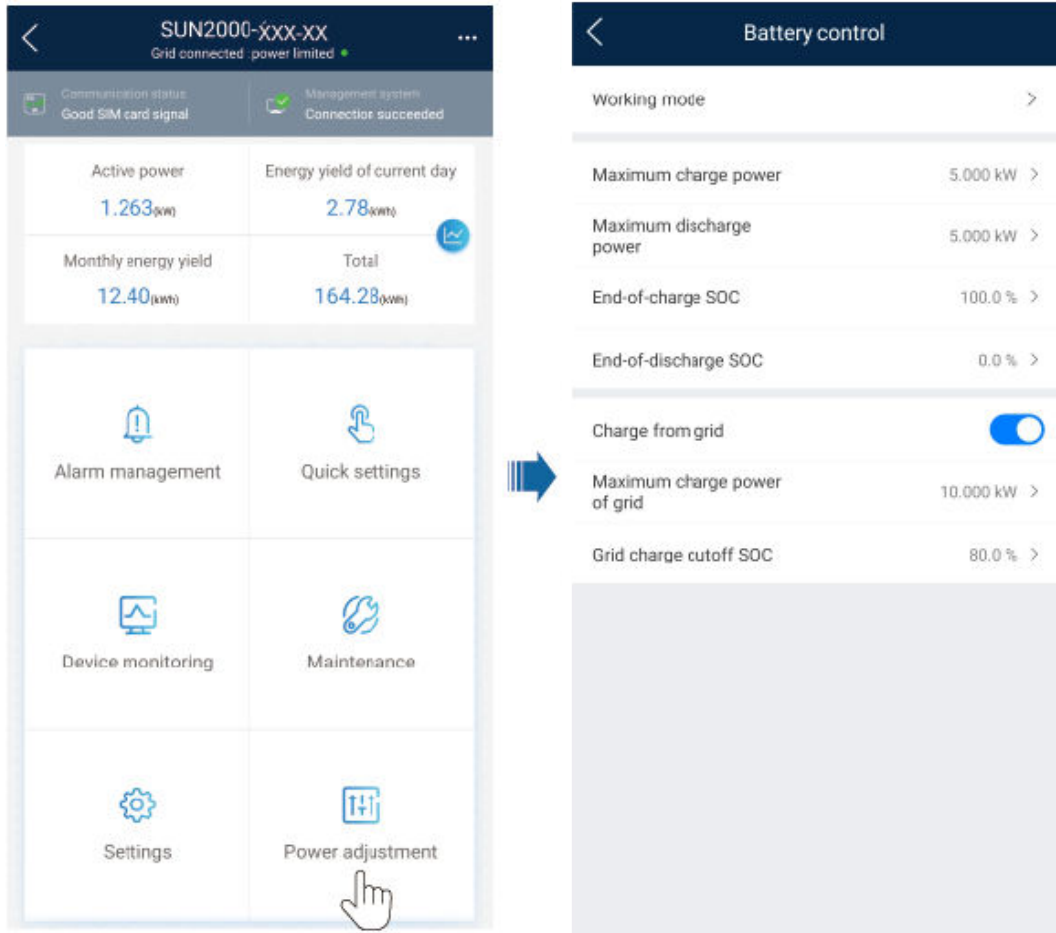
Φ

6-5



>

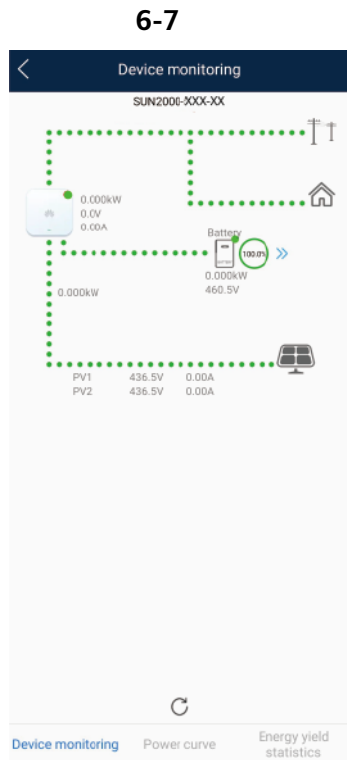
6-6



		<ul style="list-style-type: none"> • • •
()		<ul style="list-style-type: none"> • : [0,]
()		<ul style="list-style-type: none"> • : [0,]
SOC (%)		90%–100%
SOC (%)		0%–20%

Parameter	Description	Value Range
		<ul style="list-style-type: none"> • •
SOC	SOC	[20%, 100%]

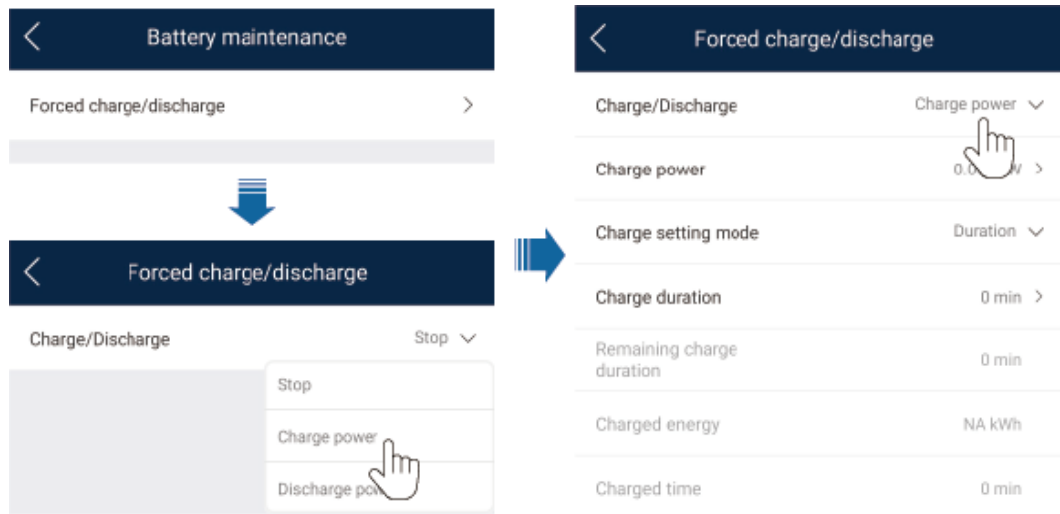
6.3.3



6.3.4



6-8



6-3

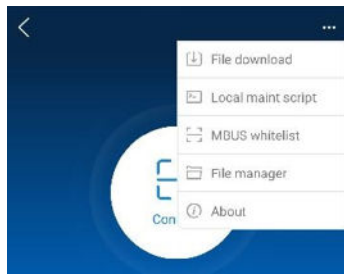
/

/	,	• • •
/ ()	/ .	• : [0,] • : [0,] •]
/	.	• • /
/ (.)	.	[0, 1440]
/ (.)	.	-
/ (.)	.	-
(.) / (.)	.	-

1



6-9



2

3

 CAUTION

7-1

		6-12
	<ul style="list-style-type: none"> • • • 	6
	<ul style="list-style-type: none"> • • • <p>COM</p>	<p>6</p> <p>6</p> <p>12</p>
		<p>6</p> <p>6</p> <p>12</p>

7.3

- :
- :

7-2

ID				
3000			1. 2. 3.	1. 5 2. [Battery-1/2], 3. 4. Huawei.
3001				1. 5 2. 3. [Battery-1/2] (), Huawei.

ID				
3002			1. 2. 3.	1. [Battery-1/2] 2. 3. Huawei.
3003				1. 2. 5 [Battery-1/2]. 3. Huawei.

ID				
3004				<p>1.</p> <p>5</p> <p>2.</p> <p>[Battery-1/2],</p> <p>3.</p> <p>4.</p> <p>Huawei.</p>

ID				
3005			1. 2.	1. , 5 2. [Battery-1/2], 3. , , 4. , Huawei.

ID				
3007			<ol style="list-style-type: none"> 1. 2. 	<ol style="list-style-type: none"> 1. 2. 3. 4. <p>Huawei.</p>

ID				
3008			1. 2. 3.	1. [Battery-1/2 battery expansion module-1/2/3] 2. 3. Huawei.
3009			1. 2.	1. [Battery-1/2 battery expansion module-1/2/3] 2. 3. Huawei.

ID				
3010			1. 2.	1. 5 2. [Battery-1/2 battery expansion module-1/2/3], 3. 4. Huawei.
3011				[Battery-1/2 battery expansion module-1/2/3]

ID				
3012				<p>1.</p> <p>2. 5</p> <p>[Battery-1/2]</p> <p>3.</p> <p>4.</p> <p>Huawei.</p>
3013				<p>1.</p> <p>2.</p> <p>[Battery-1/2 battery expansion module-1/2/3].</p> <p>3.</p> <p>4.</p> <p>Huawei.</p>

7.4

- 1.
- 2.
- 3.
4. :
: -10-55°C;
: 20-30°C
: 5% 80%
-
-
-
-
-
- 2
5. ()
6. : 220 /230 /240 , ±10%; : 380 /400 ,
±10%.
- 7.
- (25-35°C) 6 , (35-55°C), 15 (-10-25°C) 9
8. « ,
- ».
9. 50% SOC.

⚠ WARNING

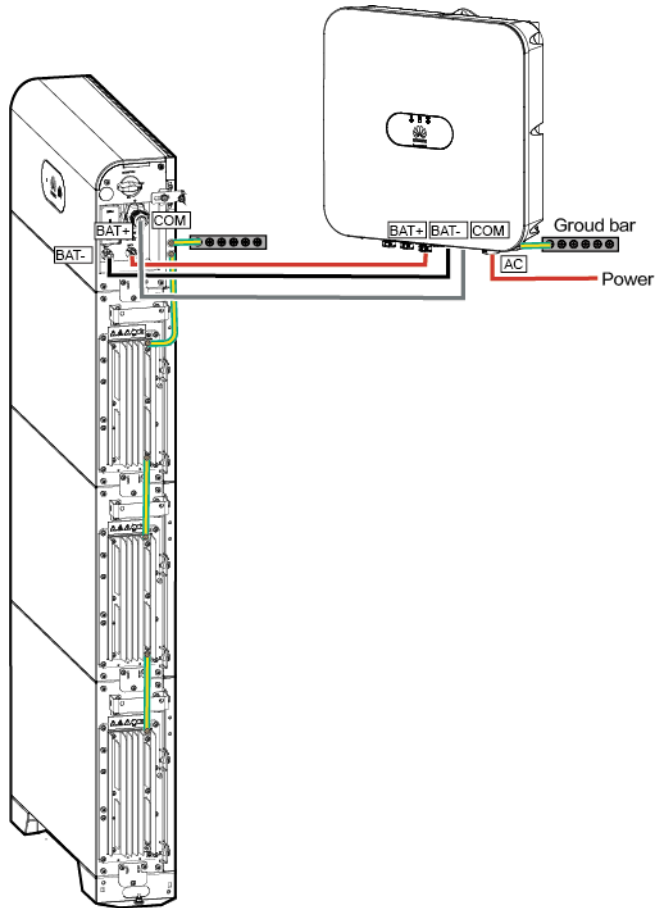
Huawei,

B+ B-

5

5.4 ()

7-3



NOTICE

-
-
-
-
- SOC 0%,
- 50% SOC.
- 12 3%-10%.

- 1
- 2 ON.
- 3
- 4 1 2 -
- 5 3 5
- 6 FusionSolar
- 7
- 8

8

8.1 LUNA2000-5KW-C0

	LUNA2000-5KW-C0
	5 kW
()	450 V
()	350–560 V
()	600 V
()	600–980 V
(x x)	240 mm x 670 mm x 150 mm
	12 kg
IP	IP66
	RS485 CAN ()
	-25°C to +55°C
	5%–95% RH
	4000 m

8.2 LUNA2000-5-E0

LUNA2000-5-E0	
a	5 kWh
	Li-ion
(x x)	360 mm x 670 mm x 150 mm
	50kg
IP	IP66
	-20°C to +55°C
	4000 m
Φ	

8.3 SUN2000-

8-1 SUN2000-(2KTL-6KTL)-L1

	SUN2000-2KTL-L1	SUN2000-3KTL-L1	SUN2000-3.68KTL-L1	SUN2000-4KTL-L1	SUN2000-4.6KTL-L1	SUN2000-5KTL-L1	SUN2000-6KTL-L1
	2000 W	3000 W	3680 W	4000 W	4600 W	5000 W	6000 W
	2200 W	3000 W	3000 W	3000 W	3000 W	3000 W	3000 W
	5000 W	5000 W	5000 W	5000 W	5000 W	5000 W	5000 W

Table 8-2 SUN2000-(3KTL-10KTL)-M1

	SUN2000-3KTL-M1	SUN2000-4KTL-M1	SUN2000-5KTL-M1	SUN2000-6KTL-M1	SUN2000-8KTL-M1	SUN2000-10KTL-M1
	3300 W	3300 W	3300 W	3300 W	3300 W	3300 W
	3000 W	4000 W	5000 W	6000 W	8000 W	10000 W
	10000 W	10000 W	10000 W	10000 W	10000 W	10000 W

9

9.1

?

: SUN2000

1

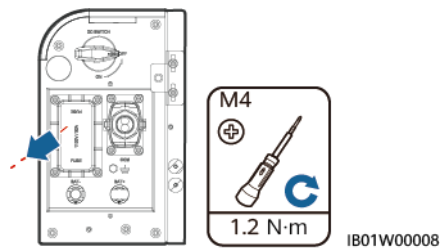
7.1

 **WARNING**

5

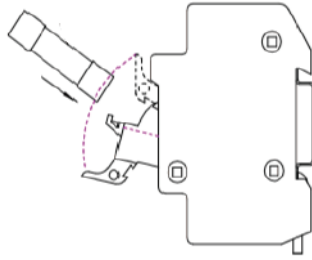
2

9-1



3

9-2



9-1

	-		-
	-		-
AC&V DC ^(V)	1100 V DC	-	-
	32 A	-	-
	10 kA	-	-
I ² T	600	-	1000
	-	-	0.005 Ω
(,)	-	14 mm x 51 mm	-

9-2

1	FWL-32A14F	Cooper Xi'an Fusegear Co., Ltd
2	VC14-32A110 0VDCAR	VICFUSE
3	RS309- MM-14C32A	Xi'an Sinofuse Electric Co., Ltd

9.2

SOC

1. SOC 99% 100%, -
?
SOC 99%, , SOC 100%.
2. 300 , SOC ?
, 300 (
SOC).

9.3

,
5

9.4

, FusionSolar
LUNA2000
LUNA2000.
, LUNA
30

A

A
APP
B
BMS
D
DC
F
FIT
E
EMI
P
PV
V
VPP