



ASTROENERGY



1.

1.2

1.1

2.

1

1

| | | |
|-----------------|------------------|-----------------|
| CHSM54M-HC | CHSM54N-HC | CHSM54M/LV-HC |
| CHSM54M(BL)-HC | CHSM54N(BL)-HC | CHSM54M(BLH)-HC |
| CHSM54N(BLH)-HC | CHSM60M-HC | CHSM60N-HC |
| CHSM60M/LV-HC | CHSM60M(BL)-HC | CHSM60N(BL)-HC |
| CHSM60M(BLH)-HC | CHSM60N(BLH)-HC | CHSM66M-HC |
| CHSM66N-HC | CHSM66M/LV-HC | CHSM72M-HC |
| CHSM72N-HC | CHSM72M/LV-HC | CHSM72M(BL)-HC |
| CHSM72N(BL)-HC | CHSM72M(BLH)-HC | CHSM72N(BLH)-HC |
| CHSM78M-HC | CHSM78N-HC | CHSM72RN-HC |
| CHSM54RN-HC | CHSM54RN(BLH)-HC | CHSM54RN(BL)-HC |

3.

IEC61215

IEC61730 UL61730

A

50V

240W

IEC61730 4 C

UL61730



3.1

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DOP

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30V

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50m

50m

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50~500m

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90
4mm

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3.2

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10

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UV

C

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48mm

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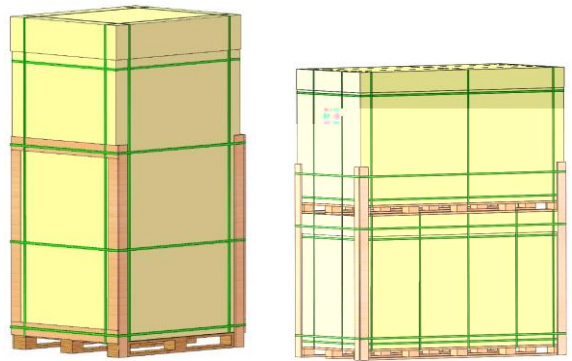
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1.

2.

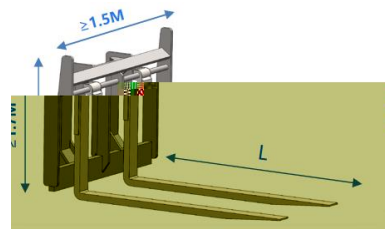
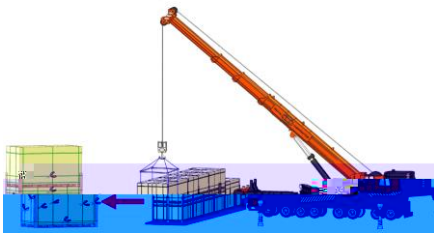
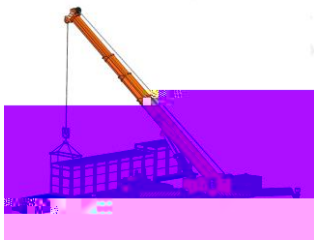
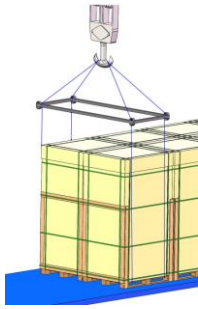
6

3.

2

2

4.1 &



1.7M, 1.5M

1.

2.

L 3/4

1.7M

1.5M

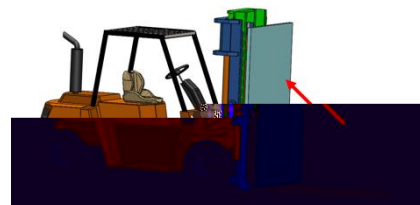
EPE

3.

EPE

4.

50mm





1

4.2



6

2

1.

(

14

1.5)

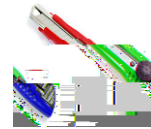
2000kgf

1.

2.

5km/h

3km/h



3.

75mm

2.

1)

2)

3)

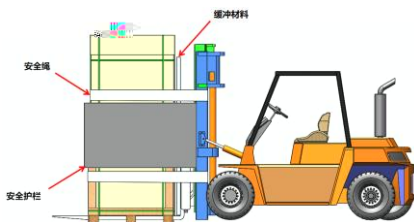
4)

5)

6)

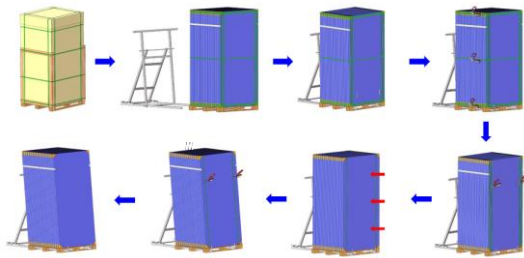
7)

8)





ASTROENERGY



670W-H

670W-L

3.

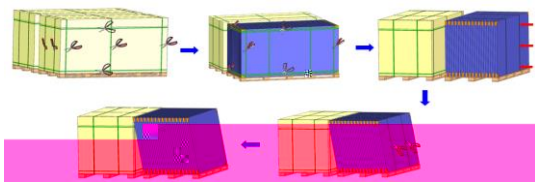
1)

2)

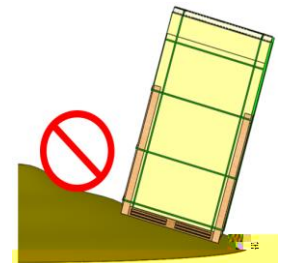
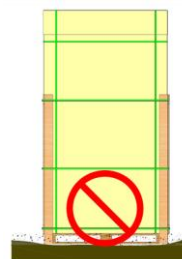
3)

4)

5)



4°



4°

4.3

/

5.

5.1

· -&)

-(+8)

·

14

/

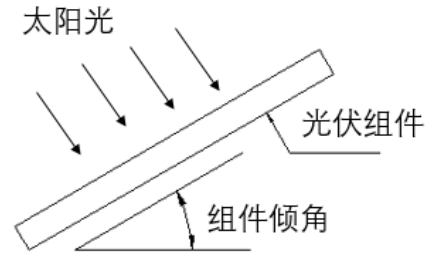
5400Pa/2400Pa

1.5

3600Pa/1600Pa



5.3



1

ISO 9223 C3

BOM

5.3

5.2

1

10°

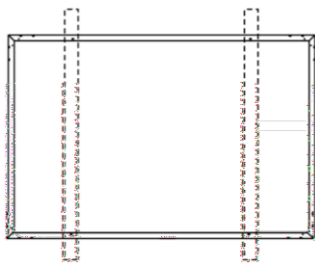
10cm

10mm



5.3.1

4
2 3 4 5 6 7 8
9 2



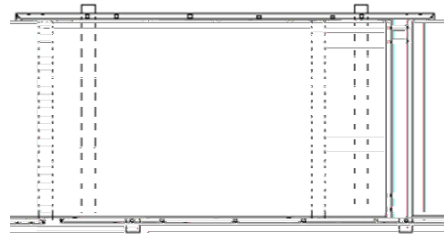
2 54cell



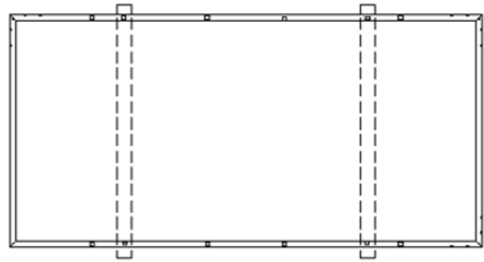
3 60cell



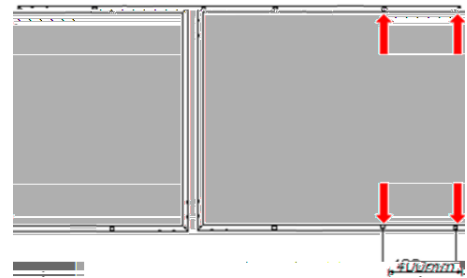
4 66cell



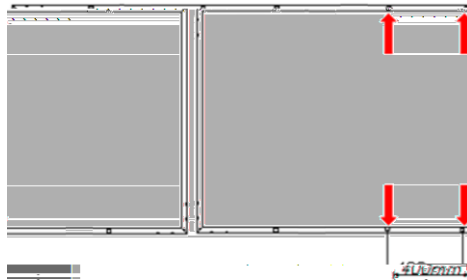
5 72cell



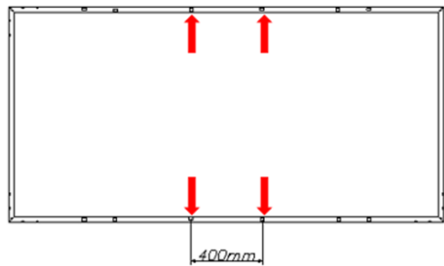
6 72cell



7 60cell 400mm



8 66cell 400mm





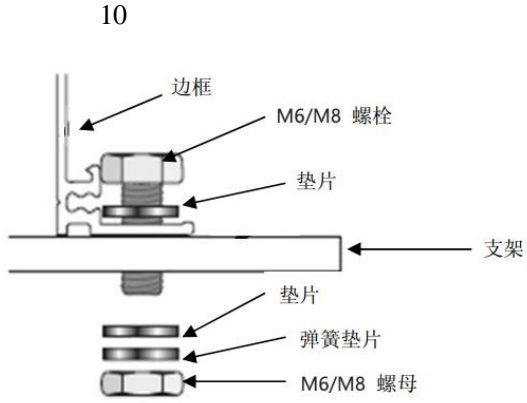
9 72cell

400mm

30mm

20mm

5.3.2



10

11

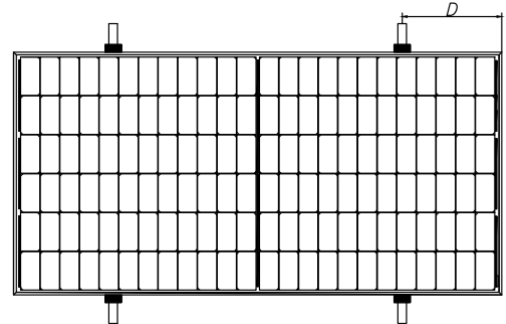
12

4

13

4

10



4 9x14mm

4 M8 400mm

7x10mm 4 M6

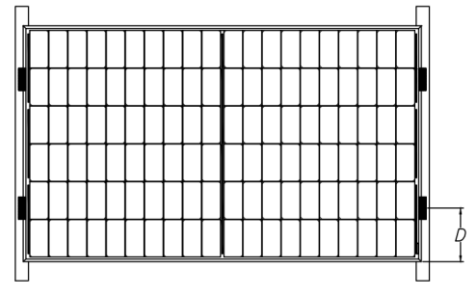
11

1.5mm

16~18mm

210

18~20mm



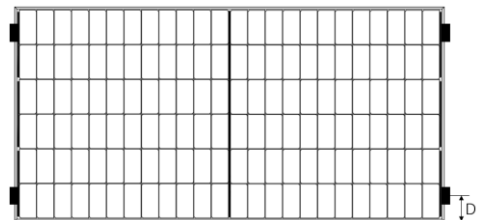
12

GB /T 3103.3 - 2020 A

M6

9~12Nm M8

17~23Nm



13



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.

8

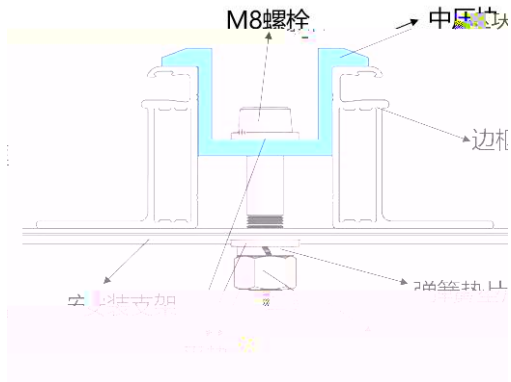
2 ---

.

M8

M8

4



17

A
9
1.2mm
0.6mm 15
12 C
25mm

2

| | L*W*H(mm) | | | | | | 400mm |
|---|-----------|--|--|--|--|--|-------|
| | | | | | | | |
| CHSM54M-HC CHSM54M/LV-HC CHSM54M(BL)-HC CHSN | | | | | | | |



ASTRONERGY

| | | | | | | | |
|-----------------------------------|------------------------------|--------------------|-------------------------|---------------------------------|---------------------------------|-----|-----|
| CHSM60N(BL)-HC CHSM60N(BLH)-HC | 1755*1038*30 | +5400Pa -2400Pa | --- | +5400/-2400Pa D 350~400mm | --- | --- | --- |
| | 1903*1134*30 1908*1134*30 | +5400Pa -2400Pa | +5400Pa a -2400Pa | +5400/-2400Pa D 320-520mm | +1600/-1600Pa D 150~250mm | --- | |
| | 2172*1303*35 | +5400Pa -2400Pa | --- | +5400/-2400Pa D 375~425mm | | | |



| | | | | | |
|--|-----------|--|--|--|--|
| | | | | | |
| | L*W*H(mm) | | | | |



6.

6.1

| | |
|-----------|------|
| -26 ~ -30 | 1.21 |
| -31 ~ -35 | 1.23 |
| -36 ~ -40 | 1.25 |

STC 1000W/m² AM1.5 25

Isc

$$C_{voc} = 1 - \frac{V_{oc}}{V_{oc} \times 25 - T_{min}}$$

Voc Pmpp

Cvoc

Voc (%/°C)

STC

T_{min} (°C)

STC

1.25

3

1.25

1.56

3

$$N * V_{oc} * C_{voc}$$

N

Voc

| | |
|-----------|------|
| | |
| 24 ~ 20 | 1.02 |
| 19 ~ 15 | 1.04 |
| 14 ~ 10 | 1.06 |
| 9 ~ 5 | 1.08 |
| 4 ~ 0 | 1.10 |
| -1 ~ -5 | 1.12 |
| -6 ~ -10 | 1.14 |
| -11 ~ -15 | 1.16 |
| -16 ~ -20 | 1.18 |
| -21 ~ -25 | 1.20 |

6.2

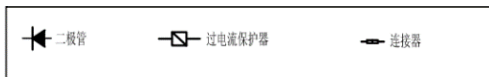
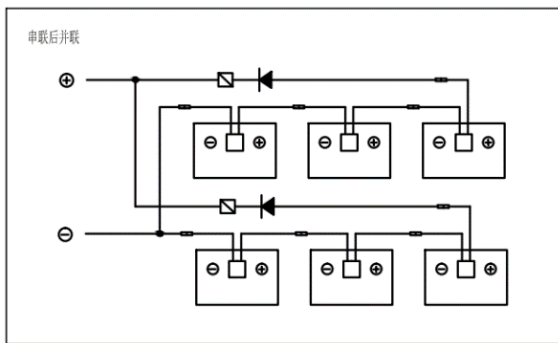
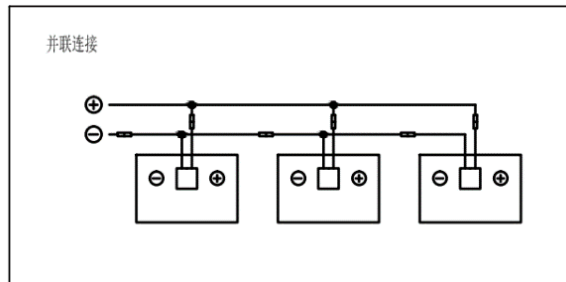
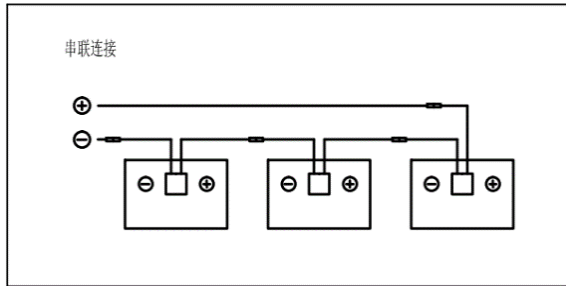


18

PV

PV

10V



12 AWG

4mm²

18

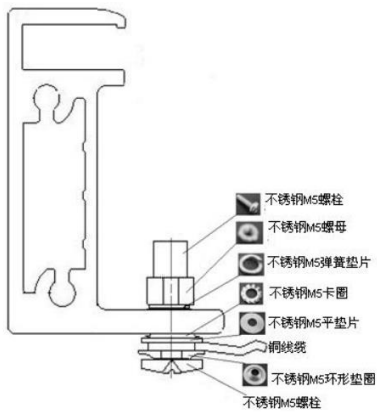


| | | | | |
|---|-------|----|----|--|
| • | | | | |
| • | M5 | M5 | M5 | |
| • | M5 | M5 | | |
| • | 5.5mm | | | |
| • | | M5 | | |
| • | | | | |
| • | | | | |
| • | | | | |

()) B a

6.3

- UL-467
- Burndy (Wiley Electronics) WEEB
- UL-467
- UL 2703



7.

7.1



6

7.2

15°

- Rev1.0 2022 9
- Rev1.1 2023 1
- Rev1.2 2023 6
- Rev1.3 2023 12

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314415

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