



# The Brief Introduction of ANTBOX N5 V2

BITMAIN

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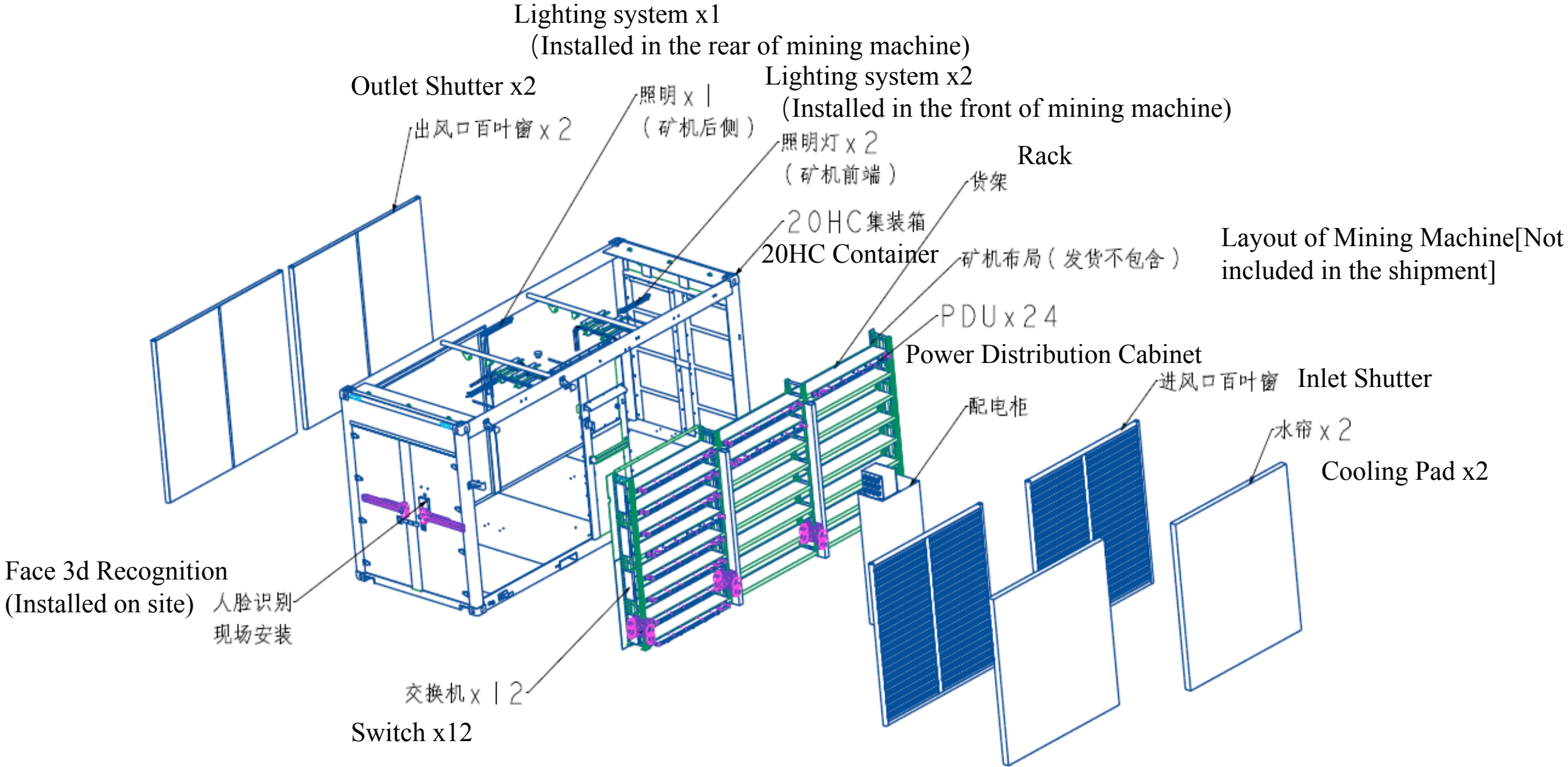
## Outlook of ANTBOX N5 V2



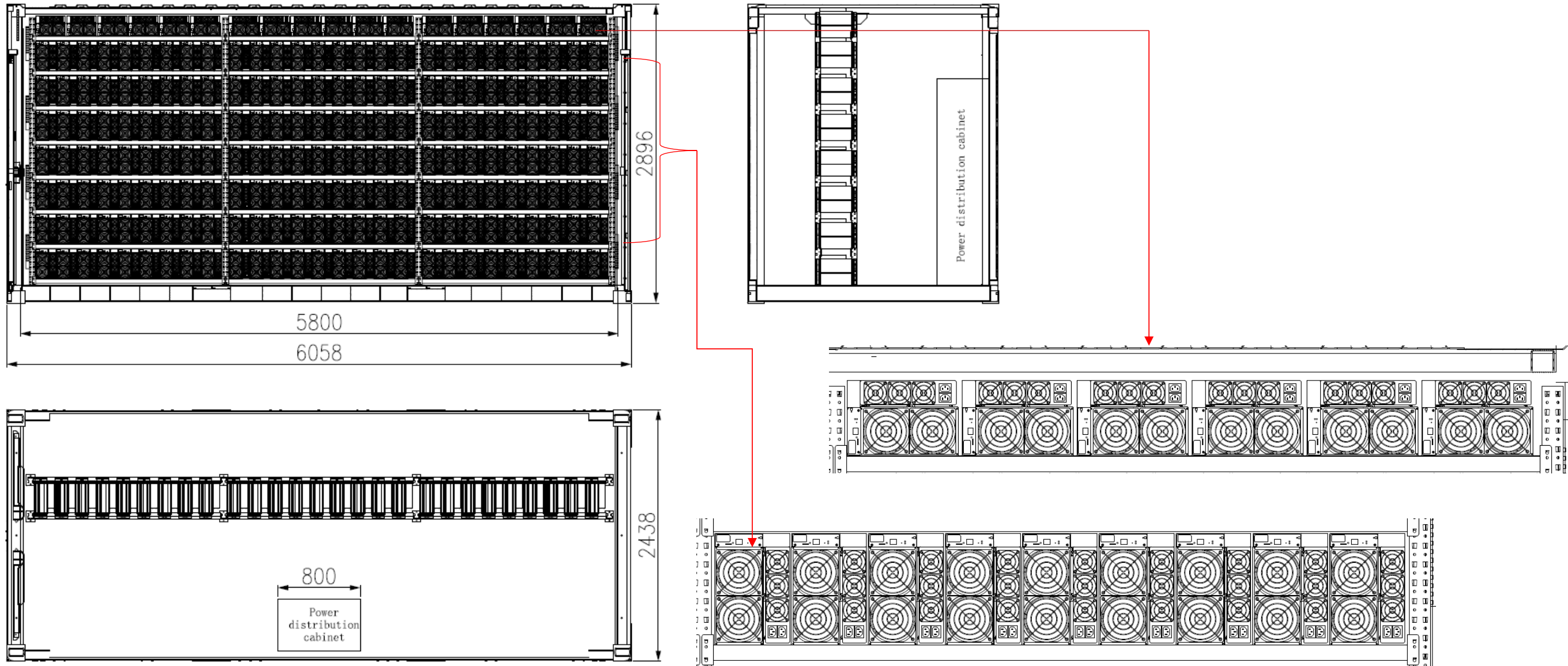
# ANTBOX N5 V2 – Specifications

Product Profile	Input Voltage, V	Min	Max
		380–415 AC	
	Frequency, Hz	50/60	
	Total Power Consumption, kW	672	745
Mining Machine	Safety Certificate	UL/CSA	
	Power Consumption of Mining Machine(Estimation)	3200	3600
	Applicable Mining Machine	S19 Series	
Container	Size of Container (L*W*H)	6058*2438*2896	
	Hauled Weight of the Container, kg	4053 (5000 will be marked on the container)	
	Operating Weight of the Container, kg	7200	
	The Quantity of Mining Machine	207	
	Current Capacity of the Main Switch	1600A/2000A	
	Applicable Transformer	1 Set of Transformer with 2500KVA Supports 3 Containers.	
Environment	Operating Temperature °C	-25~40	
	Operating Humidity	10%–90% RH	

# Decomposition Diagram of ANTB0X N5 V2



# ANTBOX N5 V2-Layout of Mining Machine



# The Main Parts of ANTBOX N5 V2

- PDU – 24 (Each: C13×18 (Mining Machine) +C13×1 (Switch))
- Power Distribution Cabinet – 1 Set
- Switch – 12 set ( 24 Ports)
- Capacity of the Mining Machine – 207 set (19 Series)
- AC Cable: 207\*2 PCS (C14 Female Connector on one terminal ,C13 Male Connector on the other terminal. UL certificate)
- Ethernet Cable: 207 FTP Single Shielded Cable.
- Cooling Pad: The Diameter of Inlet Tube DN25mm

- Operating Temperature: 0~40°C (Cooling pad system should be turned on when ambient temperature reaches 35 °C).

# The Main Parts of ANTB0X N5 V2



Rack & PDU

# Power Distribution and Power Demand of ANTBOX N5 V2



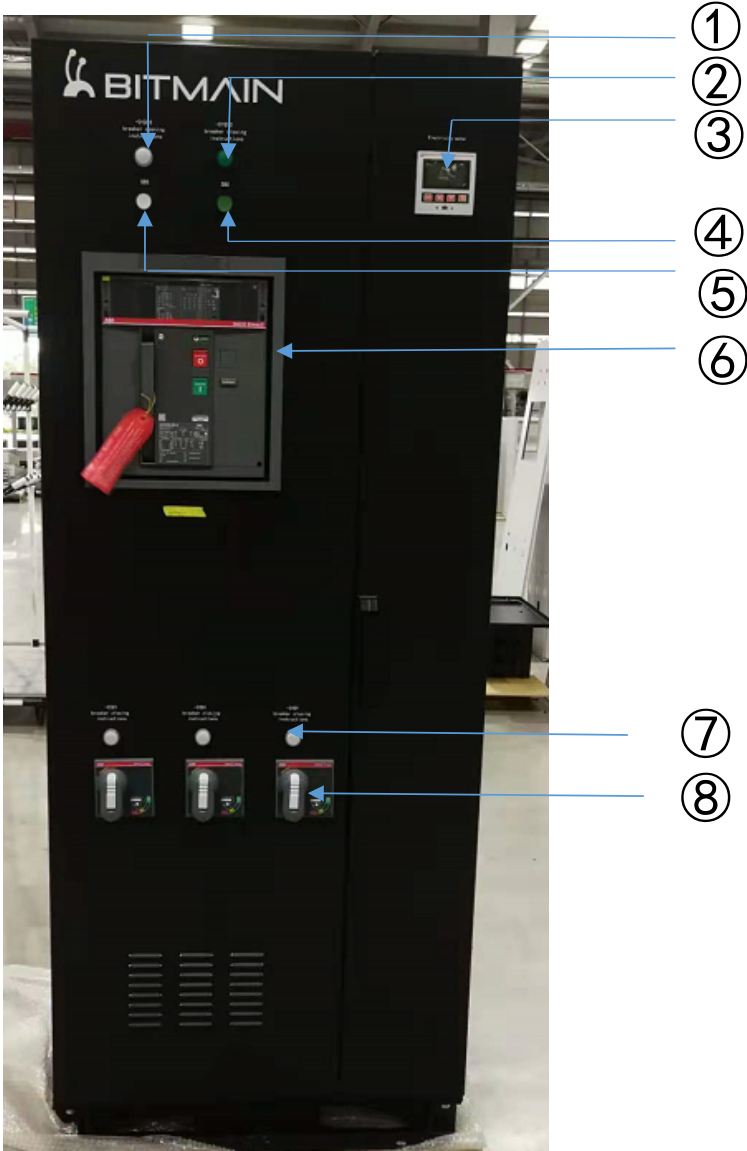
## ANTBOX N5 V2 Power Demand

(Image shown here is indicative only. If there is any inconsistency between the image and the actual product you receive, the actual product will govern.)

- The Current Capacity of Main Switch of power distribution Cabinet: 1600A/2000A
- Rated Current: 1250A
- Input Voltage: 380-415V AC 50/60HZ
- Operating Power: 672KW~745 KW
- Power Consumption of Mining Machine: 3200~ 3600 W (Estimation)
- Inlet Cable: Single Core 600kcMil (300mm<sup>2</sup>) \*4\*5, Above 600V
- 2500KVA Transformer: Supports 3 sets of ANTBOX N5 V2 to operate simultaneously)

(Take operating status of S19 mining machine for example.)

# Power Distribution and Power Demand of ANTBOX N5 V2



number	name (of a thing)	instructions
①	Inlet indicator	Green. Light on means power to the incoming line.
②	Gate closing indicator	White, light on indicates switch is in the closed position
③	power meter	
④	Close button	
⑤	Break button	
⑥	main switch	
⑦	Tributary switch closing indicator	White, light on indicates that the indicated switch is closed
⑧	Tributary switch	600A, corresponding to the shelf

# Manual Operation Instruction of ANTBOX N5 V2

1. Place mining machine in the rack and ensure that the front of mining machine(fan) is aligned with beam of the front of rack.
2. Place 9 sets of S19 mining machines vertically inside each layer of the rack from floor 1 to 7.
3. Place 6 sets of S19 mining machines horizontally inside the 8<sup>th</sup> layer.
4. Connect 1pcs of ethernet cable to the mining machine.
5. Connect PDU and the mining machine with AC cable, 2pcs of AC cables with C13-C14 are required.
6. The Main Switch
7. The Branch Switch of Rack
8. Turn on the mining machine one by one(Turn the switch of PDU for corresponding mining machines to ON)

Take Manual Operation Instruction for Details.

# Manual Operation Instruction of ANTBOX N5 V2

9. Enter the Emergency button on the left side of container door in case of emergency. (The switches of 3 racks will be activated thus to turn off power of mining machine completely)

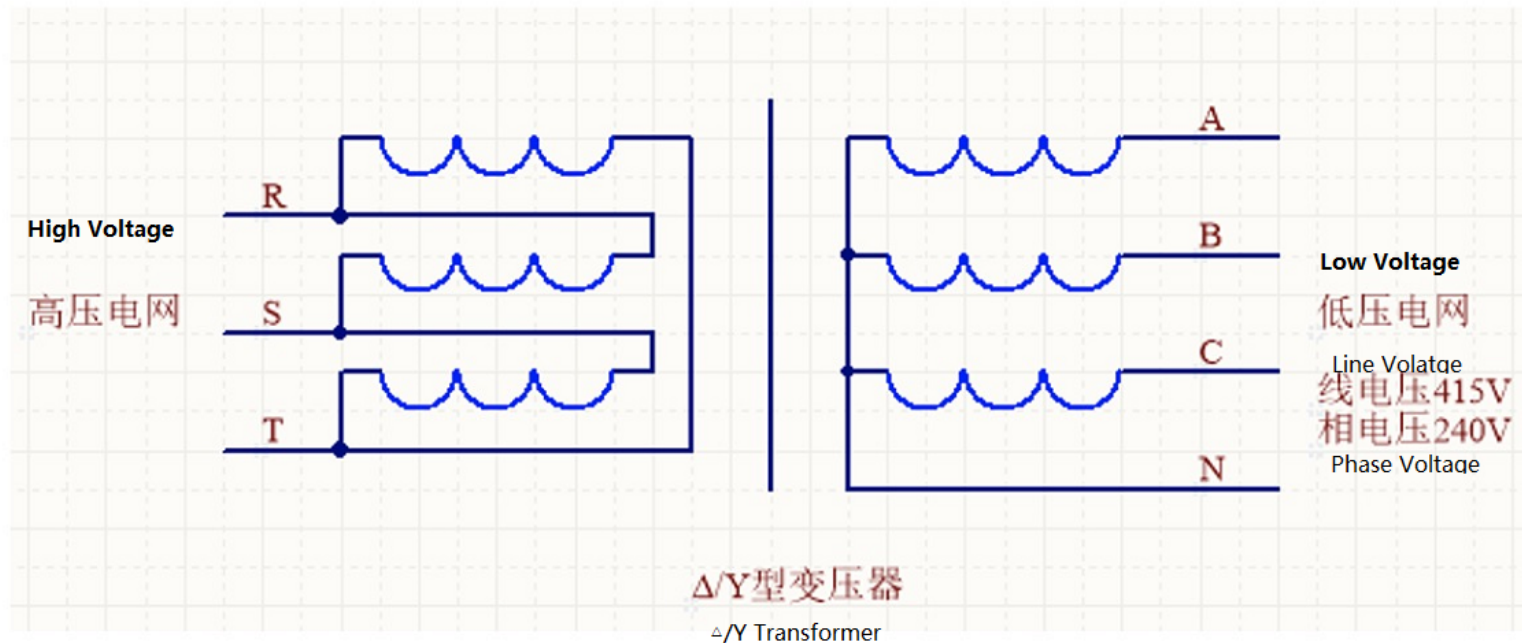


# Installation and Wiring Requirement of ANTBOX N5 V2

- The Requirement of Transformer
- Environmental Requirement of the Mining Field
- Installation Method
- Wiring Requirement

# Requirement of Transformer for NATBOX N5 V2

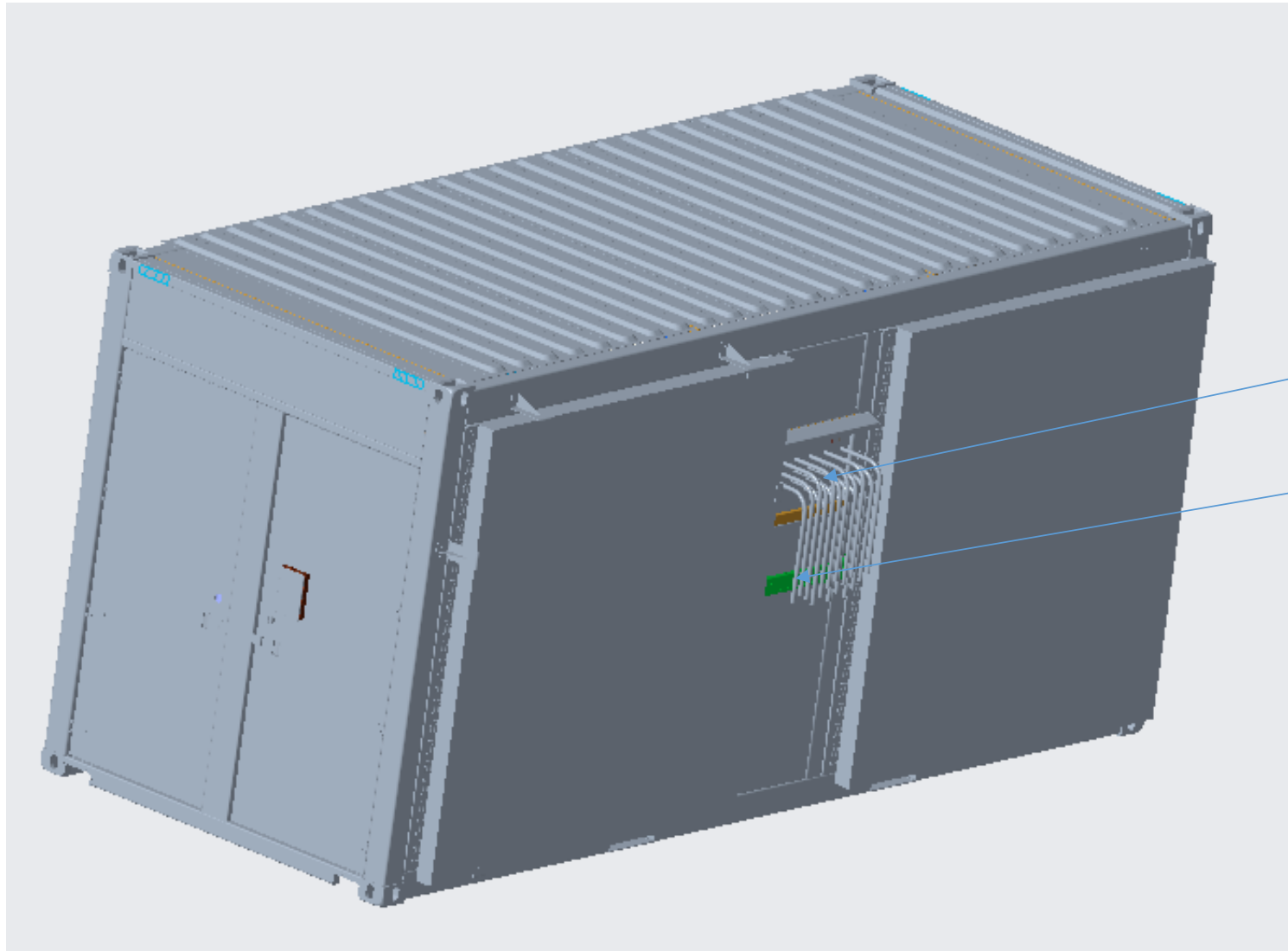
Transformer type of power distribution for product applied in the USA is recommended to refer below figure due to its complexity of power grid system, other voltage and wiring specification can not meet requirement of such a container.



# Environmental Requirement of Mining Field

- The ground should be hardened enough to support up to 3 floors(22t)
- The flatness of the ground should be within  $\pm 1^\circ$
- The broadband of internet in the field should be above 100M.
- The ether cable should be SFTP and CAT5e or above

# Installation Method



Cable inlet of the container,  
with water-proof cable gland

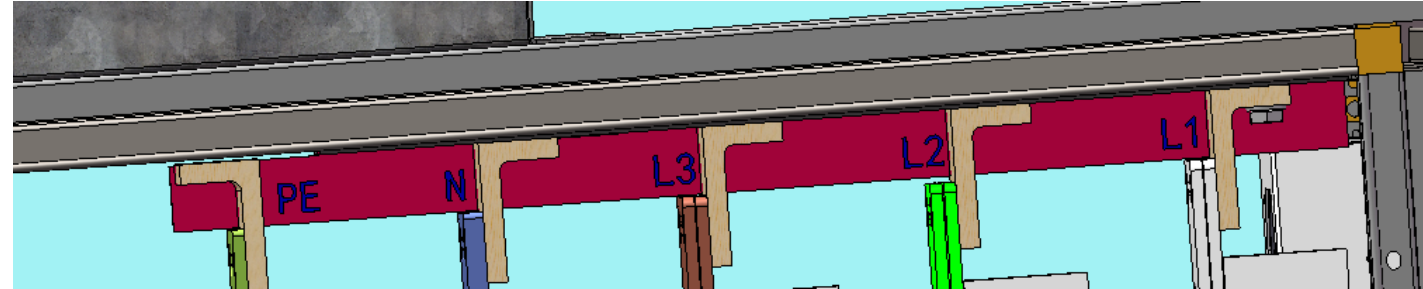
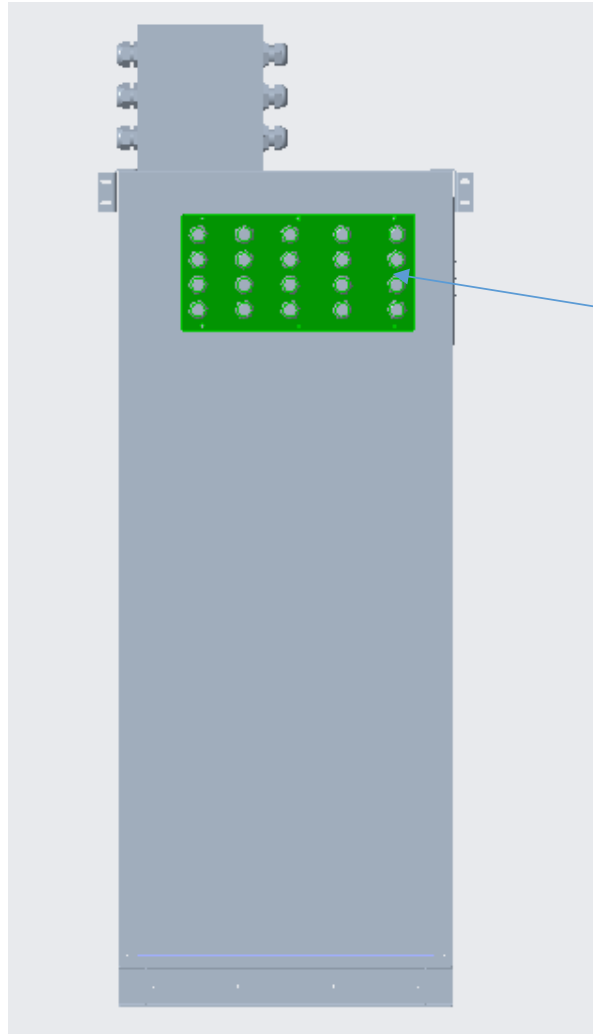
The fixed link of cable inlet of  
container

# Requirement of Wiring

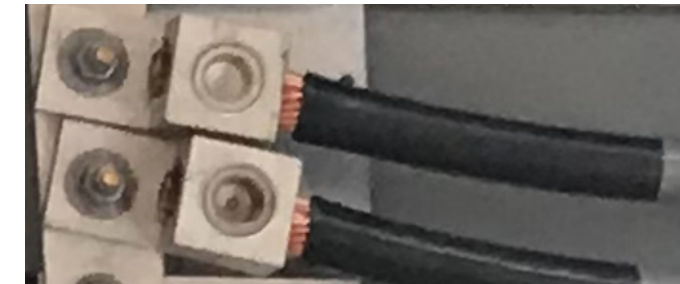
- Reserve 4xM32 inlet cable grand connectors for each phase.
- Cable grand connectors will be provided together with power distribution cabinet and container, installation of which is needed.
- Reserve  $\phi 17$  through vias for copper bar of Power distribution cabinet, along with M16 bolts.
- Connection with jackscrews is recommended.



# Requirement of Wiring

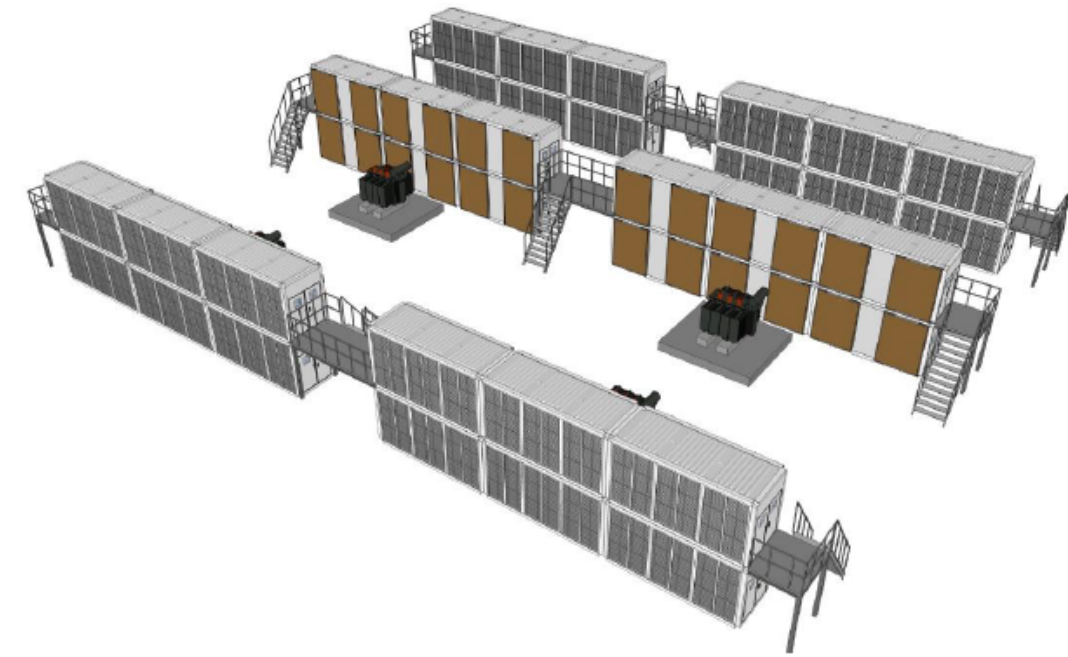


Inlet cable copper bars in the rear  
of power distribution cabinet  
(Hidden in the rear door)



Connection scheme with  
jackscrews.

# ANTBOX N5 V2-Recommendation For Layout in the Mining Field



规模化矿场布局图  
Scaled layout

- Assembly Height: Not recommended to be more than 3 layers, 8688mm
- Assembly Length: Not recommended to be over 6sets, The actual quantity of machines to be assembly should be based on specific condition of field.
- Arrangement Mode: Air inlets should be in the opposite sites. Distance between them is recommended to be 9 meters. Transformer should be placed on the side of inlet.
- Air outlets should be in the opposite sites. Distance between them is recommended to be 6 meters, transformer should be placed on the side of inlet.
- Distance between each row and group of containers is recommended to be 2 meters.
- Operating Temperature:  $-25^{\circ}\text{C}$  ~  $40^{\circ}\text{C}$  , Humidity: 10%–90%RH

# Notes on Transportation, Installation, Utilization of ANTBOX N5 V2

- A crane or a fork truck supporting 5 to 10t should be prepared by the client.
- ANTBOX should be place on the ground with  $\pm 1^\circ$  flatness.
- The ground should be harden enough to support up to 14t if 2 layers are overlapped.
- Facilities include but not limited to transformer, cable, cable tray and cable distribution box are not in the list of ANTBOX package.
- Operating Condition: Temperature  $-25^\circ\text{C}\sim 40^\circ\text{C}$ ; Humidity: 10%RH~90%RH. Cooling pad system should turned on when ambient temperature is higher than  $35^\circ\text{C}$ . In the area with high temperature and humidity, operating temperature should not be over  $40^\circ\text{C}$ . The inlet and outlet shutters should be closed and internal temperature should be warned up to above  $0^\circ\text{C}$  before starting mining machines while operate in the area with ambient temperature below  $0^\circ\text{C}$ .
- Sea level:  $\leq 2000$  meters. Derating of transformer and switch should be taken in to account with 1% of derating per each 100 meters increased.
- Note: The operating temperature of ANTBOX N5 V2 could not be deemed as the same of mining machines.
- Opening direction of container door should be confirmed. The door is on the left side in default facing against the air inlet.

## Part 05: Others

- Fire extinguisher with 4kg ABC dry-powder and a rack needs to be prepared by the client .
- Smoke sensors support 24V needs to be prepared by the client. Connection cables are prepared well on the top of container.
- There is only one camera focusing on the opening direction of the left door. The client should remove this camera to the entrance door if series containers are placed together. Ethernet port and power outlet are reserved around the side of entrance door.
- Cabling ladders are required for inlet wires, cabling racks are used to fix the cables.
- Only top of container is with thermal isolation layers, simple umbrellas are recommended to set up on top of containers.





Thanks!

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