BITMAIN



KA3 Server Manual

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1. Overview

The KA3 server is BITMAIN's newest version in this series. Power supply APW12 is part of KA3 server. All KA3 servers are tested and configured prior to shipping to ensure easy set up.





Front View



Caution:

1. Please refer to the layout above to place your goods in usage in case of any damage.

2. The equipment must be connected to an earthed mains socket-outlet. The socket-outlet shall be installed near the equipment and shall be easily accessible.

3. The equipment has two power inputs. Only by connecting those two power supply sockets simultaneously can the equipment run normally. When the equipment is powered off, be sure to power off all power inputs.

4. DO NOT remove any screws and cables tied on the product.

- 5. DO NOT PRESS the metal button on the cover.
- 6. Please note that the actual server shall prevail.

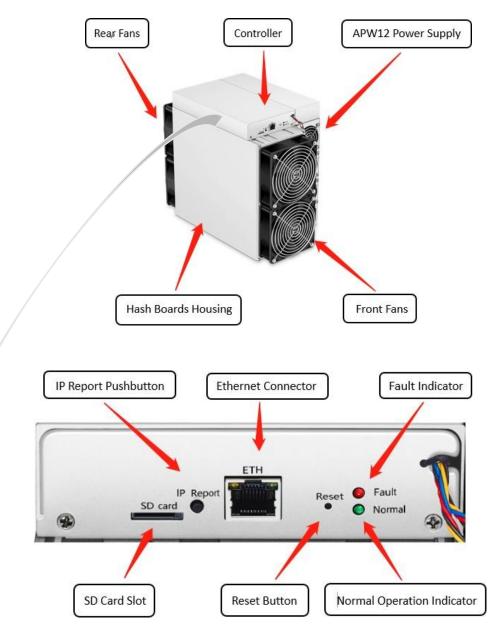




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1.1 KA3 Server Components

The main components and controller front panel of KA3 servers are shown in the following figure:





APW12 Power Supply:





Note:

- 1. Power supply APW12 is part of KA3 server. For detailed parameters, please refer to the specifications below.
- 2. Additional two power cords are needed.



1.2 Specifications

Model: KA3

Hashrate: 166 TH/s

Product Glance	Value
Model	КАЗ
Crypto Algorithm/Coins	Blake2S
Hashrate, TH/s	166 ± 3%
power on wall@25°C, Watt	3154 ± 10%
power efficiency on wall @25°C, J/TH	19.0 ± 10%

Detailed Characteristics	Value					
P	ower Supply					
Power supply AC input voltage, Volt ⁽¹⁻¹⁾	200~240					
Power supply AC Input Frequency Range, Hz	47~63					
Power supply AC Input current, Amp ⁽¹⁻²⁾	20 ⁽¹⁻³⁾					
Hardware Configuration						
Network connection mode	RJ45 Ethernet 10/100M					
Server Size (Length*Width*Height, w/o package), mm⁽²⁻¹⁾	430*195.5*290					
Server Size (Length*Width*Height, with package), mm	570*316*430					
Net weight, kg ⁽²⁻²⁾	16.1					
Gross weight, kg	17.7					
Environr	nent Requirements					
Operation temperature, °C	0~40					
Storage temperature, °C	-20~70					
Operation humidity(non-condensing), RH	10~90%					
Operation altitude, m ⁽³⁻¹⁾	≤2000					



Notes:

- (1-1) Caution: Wrong input voltage may probably cause Server damaged
- (1-2) Max condition: temperature 40°C, altitude 0m
- (1-3) Two AC input wires, 10A per wire
- (2-1) Including PSU size
- (2-2) Including PSU weight
- (3-1) When the Server is used at an altitude from 900m to 2000m, the highest operating temperature decreases by 1°C for every increase of 300m



1. Setting up the Server

2. Setting up the Server

To set up the server:

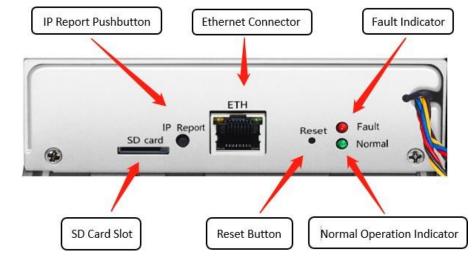
The file IPReporter.zip is supported by Microsoft Windows only.
Go to the following site: <u>https://service.bitmain.com/support</u>
Download the following file: IPReporter.zip.
Extract the file.
The default DHCP network protocol distributes IP addresses automatically.

- 4. Right-click **IPReporter.exe** and run it as Administrator.
- 5. Select one of the following options:
 - Shelf, Step, Position suitable for farm servers to mark the location of the servers.
 - Default suitable for home servers.
- 6. Click Start.

NO.	IP	MAC	POSITION



2. Setting up the Server



7. On the controller board, click the IP Report button. Hold it down until it beeps (about 5 seconds).

The IP address will be displayed in a window on your computer screen.

	I	P Reporter		
Shelf 1	Step 1 Co	Position onfirmation	1	Start
	IP 100.70.12	23		
PC	MAC 6C:EC:EB:	82:39:F2		
	ок	Skip	Stop	

- 7. In your web browser, enter the IP address provided.
- 8. Proceed to login using root for both the username and password.
- 9. In the Protocol section, you can assign a Static IP address (optional).
- 10. Enter the IP address, Subnet mask, gateway and DNS Server.
- 11. Click "Save".
- 12. Click <u>https://support.BITMAIN.com/hc/en-us/articles/360018950053</u> to learn more about gateway and DNS Server.



2. Setting up the Server

	Iminer KA3 {Algorithm Blake28}			Locate Miner	Refresh Timer 2022-06-23 14:09:58	🕀 English 🗸
Be Dashboard						
E Settings		IP	Setting			
∮å∲ IP Setting		eth0				
윩 System ^	Network Information		7E			
Password	HostNname	Antminer				
C: Firmware Upgrade	Protoco	DHCP		•		
		Save	P			
To Miner Log Firmware	Version Tue Jun 21 18:38:48 CST 2022 IP Address 192:168.1.99 MAC	A6:28:81:C2:1F:7E Type Debug			Restore Factory Settings	lestart Miner



3. Configuring the Server

3. Configuring the Server

Setting up the Pool

To configure the server:

1. Click Settings marked below.

	Antminer KA3 {Algorithm Blake2	s} (• Online)			Locate Miner 🕥 🕜 Refresh Timer 202	2-06-23 14:09:43 🏶 English 🗸
E Dashboard	Pools					
¢å∲ IP Setting	Pool1	Mining Address	Mine	r Name.	Password (optional)	
据 System ^	Pool2	TEST	TES	ST	TEST	
Password	Pool3	TEST	TES	ŝT	TEST	
🛟 Firmware Upgrade	Setup					
	Fan Speed (%) bitmain-freq bitmain-voltage	100 640 1560				
			Save			
Miner Log	Firmware Version Tue Jun 21 18:38:48 CS1	2022 IP Address 192:168.1.99 MAC A6	28:B1:C2:1F:7E Type Debug		Restore Factory S	Settings Restart Miner

Note:

1. Fan speed percentage can be adjusted, but we recommend to keep the default setting. The server will adjust the fan speed automatically if the fan speed percentage has yet been selected.

2. There are two working modes of KA3 server: Normal mode and Sleep mode. The server enters the sleep mode under the condition that the control board is powered while hashboards are not powered.

2. Set the options according to the following table:

Option	Description
Mining address	Enter the address of your desired pool. The KA3 servers can be set up with three mining pools, with decreasing priority from the first pool (pool 1) to the third pool (pool 3). The pools with low priority will only be used if all higher priority pools are offline.
Name Password (optional)	Your worker ID on the selected pool. The password for your selected worker.

3. Click Save after the configuration.



4. Monitoring Your Server

4. Monitoring Your Server

To check the operating status of your server:

1. Click dashboard marked below to check the server status (taking KA3 166T as an example).

Real Time Hashing		Θ	Network Datus		Θ	Fan Speed			Θ	anganakuna			e
	164.04		168.12-										
	0.67%		1.2.22.34.			ten file tile	then the th	on then them them.	then then then	Jaha Jina Ji		na itina aitai	1000
Pool													
No.	Alt reg balance	Mine Name	Aut Dereston New		. 64	Pierle	Areased.	201	100	Repaired	.844	Lane .	
x	1221	TCut			124288 0000	6	7306	37621686	20100624	40		0.016	
2	7557	tcar			4.000	1							
3	1211	TENT			4,000	1						1. I.	
Artminer KA3													
natikan .		Number of Charl	inernaire drov	Pasares		And Tructures		Pareto hard		ates .	0.00 h	a.	
¥.			acar	645		664704		96.06.7	8a			29.	-
2		м.	3728	840		10.000		. 96,00 1	66				34
3			4003			1010 714		98,00 1	14			er.	-
Part 1			Fair Ganal			Part Sales		Peth	and .			Perilipso	
Spectrum:			500			5760		100					

2. Monitor your server according to the descriptions in the following table:

Note: The KA3 server (166T) is with fixed frequency 665 MHz. Firmware will stop running when the Temp (Outlet) reaches to 80° C, there will be an error message "over max temp, pcb temp (real-time temp)" shown on the bottom of kernel log page. Meanwhile, the server temperature on the dashboard interface turns to abnormal and shows "Temp is too high".

Option	Description				
Number of chips	Number of chips detected in the chain.				
Frequency	ASIC frequency setting.				
Real Hashrate	Real-time Hashrate of each hash board (GH/s).				
Inlet Temp	Temperature of the inlet (°C).				
Outlet Temp	Temperature of the outlet (°C).				
Chip state	One of the following statuses will appear:				
	• The Green Icon - indicates normal				
	• The Red Icon- indicates abnormal				



5. Administering Your Server

5. Administering Your Server

5.1 Checking Your Firmware Version

To check your firmware version:

- 1. Enter the backstage of your server, find the firmware version on the bottom.
- 2. **Firmware Version** displays the date of the firmware your server uses. In the examples below, the server is using firmware version 20220621.

	Antminior KA3 (Argonton Blake2S)		Locate Miner 🕥 🕑 Retress Timer 2022-06-23 14 09:56 🖶 English 🗸
B2 Dashboard			
E Settings		IP Setting	
\$\$† IP Setting		10 mm	
뜕 System ^	Network Information	eth0 MAC Adress A6 2B B1 C2 1F 7E IP Address 192 168 1.39 Subnet Mask 255 255 255 0	
Password	HostNnam	Anorinet	
C: Fernware Upgrade	Protoco	DHCP	
		Save	
📆 Miner Log	Firmware Version Tee Jun 21 18:38:48 CST 2022	A6 28 B1 C2 1F 7E Type Debug	Restore Factory Settings Restart Miner

5.2 Upgrading Your System

Make sure that the KA3 server remains powered during the upgrade process. If power fails before the upgrade is completed, you will need to return it to BITMAIN for repair.

To upgrade the server's firmware:

1. In System, click Firmware Upgrade.

	Antminer E11 { Algorithm Ethash}	ane				Locate Miner () & Refresh Timer 2022-09-16 12	:06:05 🐣 English 🗸
Bo Dashboard							
E Settings				Firmware Upgr	ade		
∲åŶ IP Setting							
紧 System ^		Firmware Fi	ile		<u>ل</u>		
Password			Keep the Same	e Settings			
Ermware Upgrade				Update			
To Miner Log	Firmware Version Wed Sep 14 19:56:25 CST 2022	IP Address 192.168.1.99 M	AC D4 20:20:80:88 FD	Type EMC		Restore Factory Settings	Restart Miner



5. Administering Your Server

2. For Keep Settings:

3. Click the

- Select "keep settings" to keep your current settings (default).
- Unselect "keep settings" to reset the server to default settings.
 - button and navigate to the upgrade file. Select the upgrade file, then click **Update**.
- 4. When the upgrade is completed, restart the server and it will turn to the setting page.

	Antminer KA3 {Algorithm Blake2	S} Online			Locate Miner	Refresh Timer 2022-06-23 14:0	19:43 🏶 English 🗸
Dashboard	Pools						
E Settings		Mining Address		Miner Name	Pas	sword (optional)	
빆아 IP Setting	Pool1	TEST		TEST	TE	ST	
System ^	Pool2	TEST		TEST	TE		
Password	Pool3	TEST		TEST	TE	ST	
Firmware Upgrade	Setup						
	Fan Speed (%)	100					
	bitmain-freq bitmain-voltage	640 1560					
	bioliser rolege						
				Save			
To Miner Log	Firmware Version Tue Jun 21 18:38:48 CS1	2022 IP Address 192.168.1.99 M	AC A6:28:B1:C2:1F:7E Type Debug			Restore Factory Settings	Restart Miner

5.3 Modifying Your Password

To change your login password:

- 1. In System, click the Password tab.
- 2. Set your new password, then click **Save**.

BB Dashboard				
B Settings	Reset Password			
† IP Setting				
System A	Current Pastword			
Plasword	New Password Confirm Password			
Firmware Upgrade				
p rannate opprace	Save			
· · · · · · · · · · · · · · · · · · ·	S			
The second se				

5.4 Restoring Initial Settings

To restore your initial settings

- 1. Turn on the server and let it run for 5 minutes.
- 2. On the controller front panel, press and hold the **Reset** button for 10 seconds.



Resetting your server will reboot it and restore its default settings. The red LED will automatically flash once every 15 seconds if the reset is operated successfully.



Environmental Requirements

Please run your server in accordance with the following requirements

1. Basic Environmental Requirements:

1.1. Climatic Conditions:

Description	Requirement		
Operating Temperature	0-40°C		
Operating Humidity	10-90%RH (non-condensing)		
Storage Temperature	-20-70℃		
Storage Humidity	5-95%RH (non-condensing)		
Altitude	<2000m		

1.2. Site Requirements of the Server Running Room:

Please keep the server running room away from industrial pollution sources:

For heavy pollution sources such as smelters and coal mines, the distance should be more than 5km.

For moderate pollution sources such as chemical industries, rubber and electroplating industries, the distance should be more than 3.7km.

For light pollution sources such as food factories and leather processing factories, the distance should be more than 2km.

If unavoidable, the site should be chosen in the perennial upwind direction of the pollution source.

Please do not set your location within 3.7km from the seaside or the salt lake. If unavoidable, it should be built as airtight as possible, equipped with air conditioning for cooling.

1.3. Electromagnetic Environmental Conditions:

Please keep your site away from transformers, high-voltage cables, transmission lines and high-current equipment, for example, there should be no high-power AC transformers (>10KA) within 20 meters, and no high-voltage power lines within 50 meters. Please keep your site away from high-power radio transmitters, for example, there should be no high-power radio transmitters (>1500W) within 100 meters.

2. Other Environmental Requirements:

The server running room shall be free of explosive, conductive, magnetically conductive and corrosive dust. The requirements of mechanical active substances are shown below:

2.1 Requirements of Mechanical Active Substances

Mechanical Active Substance	Requirement
Sand	<= 30mg/m ³
Dust (suspended)	<= 0.2mg/m ³
Dust (deposited)	<=1.5mg/m ² h



2.2 Requirements of Corrosive Gas

Corrosive Gas	Unit	Concentration		
H ₂ S	ppb	< 3		
SO ₂	ррb	< 10		
Cl ₂	ррb	<1		
NO ₂	ppb	< 50		
HF	ppb	<1		
NH ₃	ppb	< 500		
03	ppb	< 2		
Note: ppb (part per billion) refers to the unit of concentration, 1ppb stands for the volume ratio of				
part per billion.				



Regulations:

FCC Notice (FOR FCC CERTIFIED MODELS):

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

EU WEEE: Disposal of Waste Equipment by Users in Private Household in the European Union



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handling it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste

disposal service or the shop where you purchased the product.

台湾 ROHS:

	有害物質						
單元	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr+6)	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)	
外殼	0	0	0	0	0	0	
電路板組件	—	0	0	0	0	0	
其他線材	_	0	0	0	0	0	
備考 1. "超出 0.1 wt %"及"超出 0.01 wt %"係指限用物質之百分比含量超出百分比含量基準 值。 備考 2. "○"係指該項限用物質之百分比含量未超出百分比含量基準值。 備考 3. "一"係指該項限用物質為排除項目。							

設備名稱: KA3