

GIGABYTE™



The Lord of Power

Sumo Power Silver 900W/1200W

- User Manual / English
- Handbuch / Deutsche
- Manual de l'utilisateur / Français
- Manual de usuario / Español
- Руководство пользователя / России
- 使用説明書 / 中文
- 使用说明书 / 中文
- ユーザーマニュアル / 日本語



Sumo Power Silver 900W/ 1200W

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Cautions and Warnings

- ※ Please unplug or switch off the power supply when installing it.
- ※ Make sure that the power source is consistent with the specifications labeled on the nameplate before turning on the power supply.
- ※ Do not pull and/or unplug the power cord when the power supply is in use. Doing so may cause damage to your components. You should change a new power cord or outlet if there is any bad connection.
- ※ Do not use the power supply in a high humidity and/or temperature environment.
- ※ High voltages exist in the power supply. Only an authorized service technician or electrician can open the power supply case. Doing so will void the warranty.
- ※ All warranties and guarantees will be voided in the event of failure to comply with any of the warnings and cautions covered in this manual.
- ※ If the power supply is not working properly, please contact our Product Service Center.

Components Check

- Sumo Power Silver power supply
- Modular cables
- AC power cord
- User manual
- Installation screw kit

1. Product Introduction

1-1 Introduction

A power supply is the supply center for all power needs. With this component, the system operation may be supported so that its stability and reliability can be maintained. GIGABYTE launches the high-performance, 80 Plus Silver certified Sumo Power Silver 900W/1200W power supply that streamlines the operation of your computer by utilizing the best power source while enhancing the system liability to prevent power supply abnormalities resulting from surge, etc. Equipped with the Japanese-made capacitors and solid capacitors, each Sumo Power silver 900W/1200W has the longest lifespan. Furthermore, the 12-cm Blue LED fan comes with the power supply so that you can enjoy every single moment while using it.

1-2 Product Highlights

- 80 Plus Silver certified - up to 88% efficient
- Compliant with the latest power supply design: Intel 12V v2.3/EPS12V v2.91
- Double anti-EMI design
- 5 (900W)/6 (1200W) +12V rails for the best system compatibility
- High quality Japanese-made capacitors and solid capacitors for a longer lifespan of power supply
- Modular connectors for easier cabling management
- 12-cm blue LED silent cooling fan with switchable light control
- Safety protection mechanism: over-current Protection, over-power protection, over-voltage protection, under-voltage protection, short circuit protection, and over temperature protection
- Multiple safety compliance certifications: CUL/TUV/CB/CE/FCC/BSMI/C-tick
- Compliant with the latest ErP/RoHS/WEEE environmental certification standards
- Sound and robust enclosure with anti-scratch design

1-3 Model Description

Product Name	Model
Sumo Power Silver 900W	GE-H900A-D1
Sumo Power Silver 1200W	GE-HK20A-D1

Sumo Power Silver 900W/ 1200W

2. Product Specifications

2-1 Power Input Specifications

- Type: ATX 12V V2.3/SSI EPS 12V V2.91
- Voltage: 900W-100~240Vac / 1200W-110~240Vac
- Current: 900W-12A@115Vac/6.3A@230Vac, 1200W-15A@115Vac/10A@230Vac
- Frequency: 60/50Hz
- Power good signal: 100ms~500ms
- Hold up time: > 17ms
- Efficiency: 88% Typically
- Continuous output capacity: 900W/1200W
- Maximum output capacity: 950W/1250W

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2-2 Power Output Specifications

Sumo Power 900W

Model	GE-H900A-D1									
AC Input Voltage	100-240Vac, 12-6.3A									
Frequency	60/50Hz									
Power Factor Correction type	Active PFC									
DC Output	+5V	+3.3V	+12V1	+12V2	+12V3	+12V4	+12V5	-12V	+5Vsb	
Max. Output Current	25A	25A	25A	25A	25A	28A	28A	0.5A	4.0A	
Max. Output Power	166W		864W					6W	20W	
Total Power	900W									

Sumo Power 1200W

Model	GE-HK20A-D1									
AC Input Voltage	110-240Vac, 15-10A									
Frequency	60/50Hz									
Power Factor Correction type	Active PFC									
DC Output	+5V	+3.3V	+12V1	+12V2	+12V3	+12V4	+12V5	+12V6	-12V	+5Vsb
Max. Output Current	25A	25A	25A	25A	25A	30A	30A	30A	0.5A	4.0A
Max. Output Power	190W		1166W					6W	20W	
Total Power	1200W									








2-3 Features

- Dimensions: L 200 x W 150 x H 86 (mm)
- Operating Temperature: 0 ~ 40°C
- MTBF: > 100,000 Hours
- EMC: CE/FCC/CB
- Safety compliance: CUL/TUV/BSMI/C-tick

Sumo Power Silver 900W/ 1200W

3. Description of Power Connectors

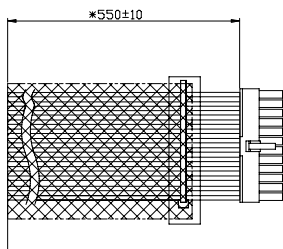
3-1 Number of Connectors

Connector	GE-H900A-D1	GE-HK20A-D1
24-pin Motherboard Connector		1
(4+4)-pin +12V CPU Connector		1
8-pin +12V CPU Connector		1
(6+2)-pin PCI-E2.0 Connectors		6
SATA Connectors		12
4-pin Peripheral Connectors		5
4-pin Floppy Connector		1

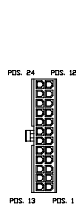
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3-2 Description of Standard Cables

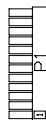
24-pin Connector (P1)



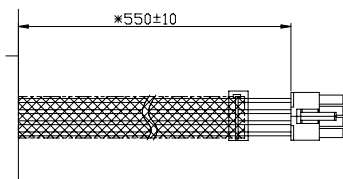
Pin No.	Description	Color
12	+3.3V	Orange
11	+12V	Yellow
10	+12V	Yellow
9	+5Vsb	Purple
8	PWR_ok	Gray
7	COM	Black
6	+5V	Red
5	COM	Black
4	+5V	Red
3	COM	Black
2	+3.3V	Orange
1	+3.3V	Orange



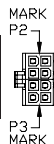
Pin No.	Description	Color
24	COM	Black
23	+5V	Red
22	+5V	Red
21	+5V	Red
20	-----	-----
19	COM	Black
18	COM	Black
17	COM	Black
16	PS-ON	Green
15	COM	Black
14	-12V	Blue
13	+3.3V	Orange
	+3.3V	Brown



4+4-PIN CPU Power Connector (P2, P3)

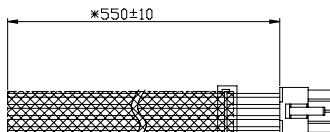


Pin No.	Description	Color
4	+12V2	Yellow
3	+12V2	Yellow
4	+12V2	Yellow
3	+12V2	Yellow



Pin No.	Description	Color
2	COM	Black
1	COM	Black
2	COM	Black
1	COM	Black

8-PIN CPU Power Connector



Pin No.	Description	Color
8	+12V6	Yellow/White
7	+12V6	Yellow/White
6	+12V6	Yellow/White
5	+12V6	Yellow/White



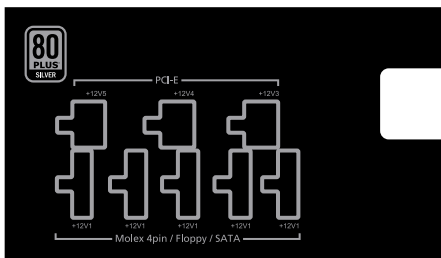
Pin No.	Description	Color
4	COM	Black
3	COM	Black
2	COM	Black
1	COM	Black

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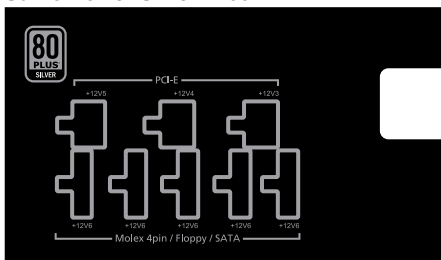
3-3 Descriptions of Modular Cables

Modular Backplane

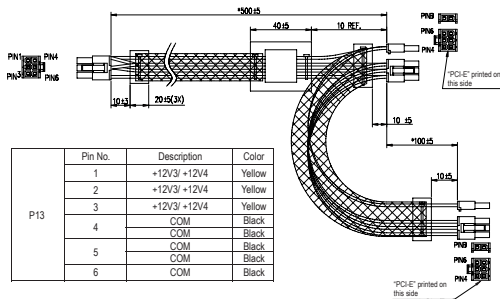
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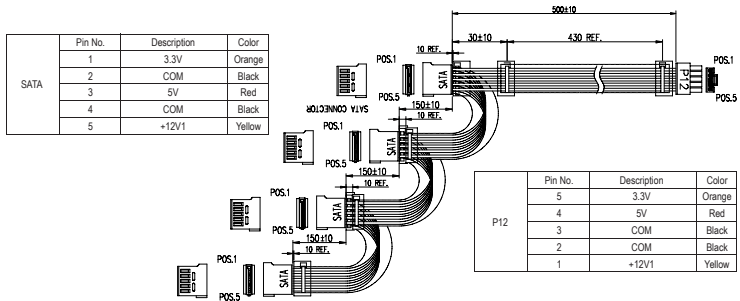
Graphic Card Connectors: 6-pin PCI-E power connector to dual 6+2-pin PCI-E power connectors x 3



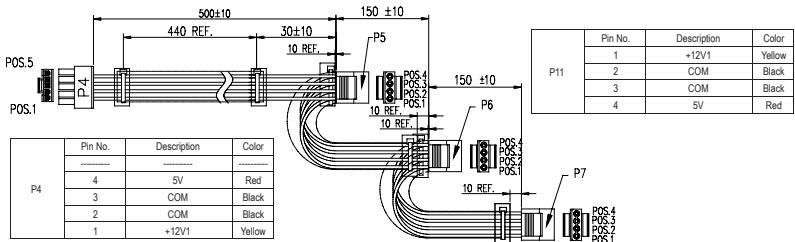
Pin No.	Description	Color
1	+12V3/ +12V4	Yellow
2	+12V3/ +12V4	Yellow
3	+12V3/ +12V4	Yellow
4	COM	Black
5	COM	Black
6	COM	Black
7	COM	Black
8	COM	Black

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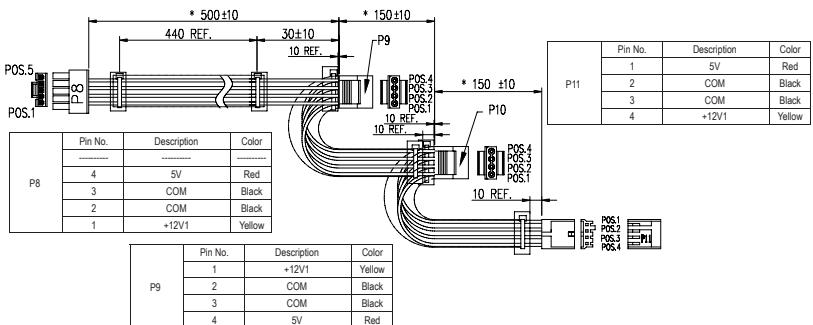
SATA Connectors: 5-pin power connector to quad SATA power connectors x3



4-pin Peripheral Power Connectors: 5-pin power connector to triple 4-pin peripheral power connectors x 1



4-pin Floppy power connector: 5-pin power connector to dual 4-pin peripheral power connectors and single small 4-pin floppy power connector x 1



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4. Installation

- Switch off the main power and unplug the power cord.
- Unfasten the case screws on the case to open the panel on the side of the housing.
- Unplug all power connectors from the motherboard and peripherals, such as system fans, hard disk drives, optical drives, floppy disk drives, etc.
- Place the power supply in proper location and secure it with screws.
- Connect the P1 (24-pin) and P2 (CPU 4+4-pin) connectors to the motherboard.
- Then connect peripheral system components with proper connectors.
- Make sure that all connectors have been connected.
- Close the housing and secure the case screws.
- Insert the power cord and switch on the main power.

5. Troubleshooting

If the power supply does not work properly, please follow the troubleshooting steps below:

- (1) Is the power cord inserted correctly into both the AC outlet and the AC power socket of the power supply?
- (2) Ensure that the “I/O” switch on the power supply is switched to “I”.
- (3) Make sure that all the appropriate power connectors are properly connected to each device.
- (4) If the UPS is connected, ensure that it is open and working normally.

If the power supply is not working properly after following the instructions above, please contact local stores or GIGABYTE offices for after-sale service. For more information about technical support, please visit the GIGABYTE website: www.gigabyte.com.

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6. Introduction of Protection Mechanism

◎ Over-Current Protection:

Voltage	GE-H900A-D1		GE-HK20A-D1	
	Protection Point		Protection Point	
	Min	Max	Min	Max
+5V	30A	60A	30A	65A
+3.3V	30A	60A	30A	65A
+12V _{1,2,3,4,5}	30A	60A	30A	65A
+12V6			30A	65A

◎ Over-Voltage Protection:

Voltage	Protection Point	
	Min	Max
+5V	5.75V	7.0V
+3.3V	3.76V	4.5V
+12V _{1,2,3,4,5,6}	13.50V	16.0V

◎ Over-Power Protection:

- 900W: 110 ~ 150% of Full-Loading
- 1200W: 110 ~ 130% of Full-Loading

◎ Short Circuit Protection:

The short circuit placed on +3.3V, +5V, +12V and -12V output shall cause no damage and the power supply shall shut down or latch.



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