

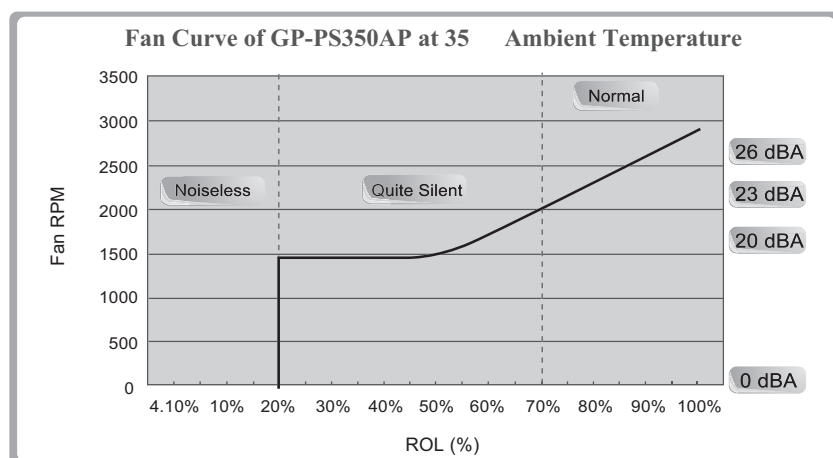
Introductions

GlacialPower PS series products are designed to be in compliance with ATX12V V2.2 to support the latest Intel Core™ 2 Duo and AMD Athlon™ 64 X2 CPU systems. You have made a wise selection of GlacialPower products. This is your best buy.

Features

- ATX12V version 2.2
- Reliable forward topology design
- Dual +12V rails
- High +5Vsb capability (15 W)
- Full output power from 0 to 50 and operation range of AC inputs (90 ~ 135 Vrms or 180 ~ 264 Vrms) of GP-PS350AP and GP-PS450AP
- Full protection features of SCP, OVP, OCP, OPP, OTP
- Low power consumption of standby mode
- Complete fan switch off (0 dBA) with low load
- Fan delay shut down to extend electronic components' lifetime
- Intelligent fan speed control to optimize power performance and quiet working environment
- Delivery of 75% power efficiency by passive PFC
- RoHS compliance
- Manufactured with high quality components and strict processes

The PS series products are designed with reliable forward topology which presents the highest reliability, highest stability and higher efficiency. The series products provide really full specification performance in all kinds of environments. The intelligent and unique fan control circuit is designed to acquire a fan speed (RPM) in relation to the inside temperature of power supply. After getting started for a while, the fan turns off when the first main power is on. The fan will be turned on again at a minimum low speed until the PSU inside temperature arises to around 60 °C. The PSU fan will be fully turned-off with system certain low load (the same as in Standby or Sleep Mode) to achieve real noiseless condition. This feature also prolongs the fan lifetime. In case of heavy operation condition the system turns off softly (PS_OFF) and the PSU fan delays to turn off until inside temperature is below 50 °C. The graph (Fan Curve of GP-PS350AP at 35 °C Ambient Temperature) shows the intelligent and silent fan curve for a typical PS series power supply.



Specifications

GP-PS350AP

AC Input:

| Parameter | Min. | Nom. | Max. |
|---------------|----------|----------------|----------|
| Vin (115 Vac) | 90 Vrms | 100 ~ 127 Vrms | 135 Vrms |
| Vin (230 Vac) | 180 Vrms | 200 ~ 240 Vrms | 264 Vrms |
| Vin Frequency | 47 Hz | 50 / 60 Hz | 63 Hz |

DC Output Load:

| DC Output | +5V | +3.3V | +12V1 | +12V2 | -12V | +5Vsb |
|-----------------------------|-----|-------|-------|-------|------|-------|
| Nominal Output Voltage (V) | 5 | 3.3 | 12 | 12 | -12 | 5 |
| Min. Current (A) | 0.3 | 0.3 | 0.5 | 0.5 | 0 | 0 |
| Max. Current (A) | 22 | 22 | 12 | 15 | 0.6 | 3 |
| Peak Current (A) | | | 13 | 18 | | 3.5 |
| Max. Power (W) | 110 | 72.6 | 144 | 180 | 7.2 | 15 |
| Combined Max. Power (W) | 130 | | 300 | | 7.2 | 15 |
| Total Max. Output Power (W) | 350 | | | | | |

GP-PS450AP

AC Input:

| Parameter | Min. | Nom. | Max. |
|---------------|----------|----------------|----------|
| Vin (115 Vac) | 90 Vrms | 100 ~ 127 Vrms | 135 Vrms |
| Vin (230 Vac) | 180 Vrms | 200 ~ 240 Vrms | 264 Vrms |
| Vin Frequency | 47 Hz | 50 / 60 Hz | 63 Hz |

DC Output Load:

| DC Output | +5V | +3.3V | +12V1 | +12V2 | -12V | +5Vsb |
|-----------------------------|-----|-------|-------|-------|------|-------|
| Nominal Output Voltage (V) | 5 | 3.3 | 12 | 12 | -12 | 5 |
| Min. Current (A) | 0.3 | 0.3 | 0.5 | 0.5 | 0 | 0 |
| Max. Current (A) | 25 | 25 | 16 | 17 | 0.6 | 3 |
| Peak Current (A) | | | 17 | 19 | | 3.5 |
| Max. Power (W) | 125 | 82.5 | 192 | 204 | 7.2 | 15 |
| Combined Max. Power (W) | 130 | | 350 | | 7.2 | 15 |
| Total Max. Output Power (W) | 450 | | | | | |

GP-PS550BP

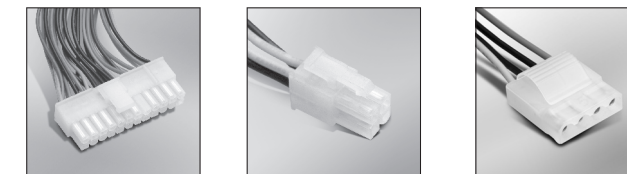
AC Input:

| Parameter | Min. | Nom. | Max. |
|---------------|----------|------------|----------|
| Vin (115 Vac) | 100 Vrms | 115 Vrms | 135 Vrms |
| Vin (230 Vac) | 200 Vrms | 220 Vrms | 264 Vrms |
| Vin Frequency | 47 Hz | 50 / 60 Hz | 63 Hz |

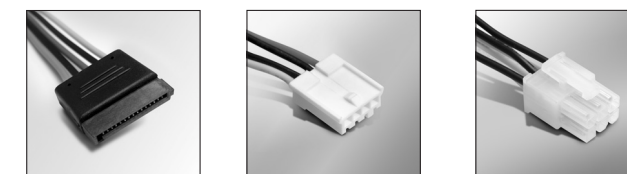
DC Output Load:

| DC Output | +5V | +3.3V | +12V1 | +12V2 | -12V | +5Vsb |
|-----------------------------|-----|-------|-------|-------|------|-------|
| Nominal Output Voltage (V) | 5 | 3.3 | 12 | 12 | -12 | 5 |
| Min. Current (A) | 0.3 | 0.3 | 0.5 | 0.5 | 0 | 0 |
| Max. Current (A) | 25 | 25 | 18 | 18 | 0.6 | 3 |
| Peak Current (A) | | | 19 | 19 | | 3.5 |
| Max. Power (W) | 125 | 82.5 | 216 | 216 | 7.2 | 15 |
| Combined Max. Power (W) | 130 | | 400 | | 7.2 | 15 |
| Total Max. Output Power (W) | 550 | | | | | |

Output Connector Quantities



| Model | Main Power (20+4P) | CPU Connector (4P) | 5.25" HDD (4P) |
|------------|--------------------|--------------------|----------------|
| GP-PS350AP | 1 | 1 | 4 |
| GP-PS450AP | 1 | 1 | 5 |
| GP-PS550BP | 1 | 1 | 5 |



| Model | Serial ATA | 3.5" FDD (4P) | PCI-E (6P) |
|------------|------------|---------------|------------|
| GP-PS350AP | 1 | 1 | 1 |
| GP-PS450AP | 2 | 1 | 2 |
| GP-PS550BP | 2 | 1 | 2 |

Power Supply Installation Instructions

For New System:

1. Consult your system or chassis manual to open your computer chassis properly.
2. Position the power supply into your computer chassis and secure with screws.
3. Connect DC output connectors to mother board and peripheral devices.
 - a. Attach the (20+4) pin main power connector to mother board 24 pins connector, or use the 20 pins main power connector to connect to mother board 20 pins connector.
 - b. Attach the 4 pins +12V power connector to mother board 4 pins connector.
 - c. Attach the peripheral 4 pins connector to the peripheral devices (HDD, ODD). The Serial ATA connectors are for your hard disk drivers with Serial ATA interface.
 - d. Attach 4 pins floppy disk driver power connector to the floppy driver.
 - e. If you have the graphic card, please attach the 6 pins +12V power connector(s) to PCI-E graphic card(s).
4. Arrange the wires carefully to avoid any wires blocking the CPU and/or system fan.
5. Follow the system or chassis manual to close your computer system chassis properly.
6. Check the power supply input voltage range switch, if you set on the correct position (115 or 230). Default setting is 230, if your city power is 115 Vac, please change the switch to 115 position.



7. Connect the power cord to the power supply, then insert the power cord plug into your city power socket.
8. Switch the "I/O" AC power switch to "I" status then turn on your computer.



For Replacement:

1. Make sure the system power is turned off and power cord is disconnected.
2. Consult your system manual to open the system chassis properly.
3. Disconnect all old power supply DC output connectors from mother board and other peripheral devices.
4. Remove old power supply screws from the system chassis then remove old power supply from the system.
5. Follow Step 2 to 8 mentioned above to complete the new power supply replacement and run your system with new power supply.

Warnings:

1. Do not open the power supply chassis. Warranty becomes invalid, if the power supply chassis cover is removed. Under no circumstances should the power supply cover be opened. There are dangerous high voltages inside the power supply.
2. Make sure the input voltage range switch is on right position before plug the AC power cord and turn on the power supply. Wrong input voltage switch setting will cause the system not to operate properly or to damage the power supply permanently.
3. Please keep the power supply away from humidity and do not block the exit of the air flow in operation.

Trouble Shooting:

If the power supply fails to operate properly, please follow steps given below to check, before you return it for repair.

1. Does the input voltage range switch in right position?
2. Does the AC power cord plug properly from wall outlet to AC inlet of the power supply?
3. Ensure the power supply "I/O" switch is switched to "I" status.
4. Check all DC output connectors are properly connected to all locations and devices.
5. Recycle turn-off and turn-on the power supply through the "I/O" switch with intervals at least 20 seconds.

Safety Approval:



⚠ Please read this manual first before using product.

GlacialPower
Power Your Idea



User's Manual

- GP-PS350AP
- GP-PS450AP
- GP-PS550BP

GlacialPower
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