

Sharkoon



SILENT STORM

ICEWIND EDITION



Manual

TABLE OF CONTENTS

1. General	3
2. Specifications	3
2.1 Overview	3
2.2 Mains Voltage and Protections	4
2.3 Safety Certifications	4
3. Package Contents	5
4. Modular System of the Power Supply	5
4.1 Connection Options	5
4.2 Cable Diagram SilentStorm Icewind 550	6
4.3 Cable Diagram SilentStorm Icewind 650/750	6
5. Installation	7
5.1 Installing the Power Supply into a PC Case	7
5.2 Connecting Mainboard and Graphic Card(s)	7
5.3 Connecting Optical Drives and Other Peripheral Devices	8
5.4 Attaching the Cable Combs	8
5.5 Connecting the Cables to the Power Supply	8
5.6 Checking All Connections	8
6. Troubleshooting	9

Dear Customer,

Thank you for your purchase of this high-quality SHARKOON Product. To ensure a long service life, and full functionality of the product, we recommend that you read this manual thoroughly.

SHARKOON Technologies
www.sharkoon.com

1. General

Power	550, 650 or 750 Watt
CPU	Compatible with Intel Haswell, Skylake, Kaby Lake plus the latest Intel and AMD CPUs
Warranty	3 Years
PCIe Connectors	550 Watt: 2x 6+2-Pin PCIe Connector 650/750 Watt: 4x 6+2-Pin PCIe Connector
80-PLUS Certification	Bronze
Fan	135 mm Fan
Efficiency	20% Load: Min. 82% 50% Load: Min. 85% 100% Load: Min. 82%

2. Specifications

2.1 Overview

Model No.	SilentStorm Icewind 550				
Input (AC)	Input Voltage		Current	Frequency	
	100 - 240 VAC		8 A	50 - 60 Hz	
Output (DC)	+3.3 V	+5 V	+12 V	-12 V	+5 Vsb
Max. Output Current	20 A	20 A	45.9 A	0.3 A	2.5 A
Max. Combined Power	105 W		550 W	3.6 W	12.5 W
Total Power	550 Watt				



Model No.	SilentStorm Icewind 650				
Input (AC)	Input Voltage		Current	Frequency	
	100 - 240 VAC		10 A	50 - 60 Hz	
Output (DC)	+3.3 V	+5 V	+12 V	-12 V	+5 Vsb
Max. Output Current	22 A	22 A	54.2 A	0.3 A	2.5 A
Max. Combined Power	120 W		650 W	3.6 W	12.5 W
Total Power	650 Watt				

Model No.	SilentStorm Icewind 750				
Input (AC)	Input Voltage		Current	Frequency	
	100 - 240 VAC		12 A	50 - 60 Hz	
Output (DC)	+3.3 V	+5 V	+12 V	-12 V	+5 Vsb
Max. Output Current	22 A	22 A	62.5 A	0.3 A	2.5 A
Max. Combined Power	120 W		750 W	3.6 W	12.5 W
Total Power	750 Watt				

2.2 Mains Voltage and Protections

This power supply works with 100 - 240 V. It is available with the following protective measures:

1. Over Power Protection (OPP)

If a voltage rail draws in more electricity to the power supply than the specifications allow, the power supply will switch off.

2. Over Voltage Protection (OVP)

This function protects against excessive voltage, preventing damage to the PC by switching off the power supply during a surge.

3. Under Voltage Protection (UVP)

If the power supply falls below a fixed number of the minimum voltage, the power supply will switch off automatically.

4. Short Circuit Protection (SCP)

Should a short circuit occur with your PC, the SCP function switches off the power supply and protects the electronics from damage.

5. Over Current Protection (OCP)

If the rail draws in more current than allowed, the OCP function switches off the power supply, ensuring no damage.

6. Over Temperature Protection (OTP)

The overheat protection circuit switches off the power supply to protect the electronics from damage when excessive heat is detected.

2.3 Safety Certifications

Our power supply is tested and complies with CE, FCC and CB safety certifications.



3. Package Contents



Note:

If you are missing any of the items listed above, please contact our customer service immediately:

support@sharkoon.com (Europe)

support@sharkoon.com.tw (International)

4. Modular System of the Power Supply

The provided modular cables are a special feature for connecting peripheral devices. With them, not needed cables can be simply detached or, if necessary, easily reattached to the power supply. The case remains tidy and airflow is not hindered.

4.1 Connection Options

1x cable with 3x IDE connectors

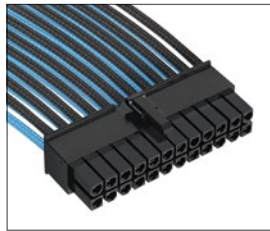
3x cables for
3x SATA connectors

550 Watt: 2x cables with
1x 6+2-pin PCIe connector

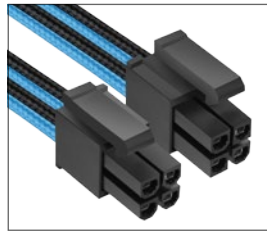
650/750 Watt: 2x cables for
2x 6+2-pin PCIe connectors



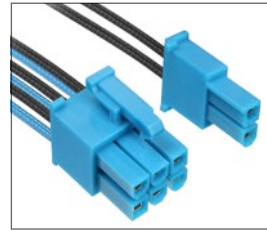
In addition to the 24-pin mainboard connector and 4+4-pin CPU connector cable, which are firmly soldered to the power supply, the SilentStorm Icewind provides a range of modular, textile braided cables with the following connectors:



1x 24-Pin Mainboard Connector



1x 4+4-Pin CPU Connector



550 Watt: 2x 6+2-Pin PCIe Connector
650/750 Watt: 4x 6+2-Pin PCIe Connector



9x SATA Connector



1x Floppy Connector



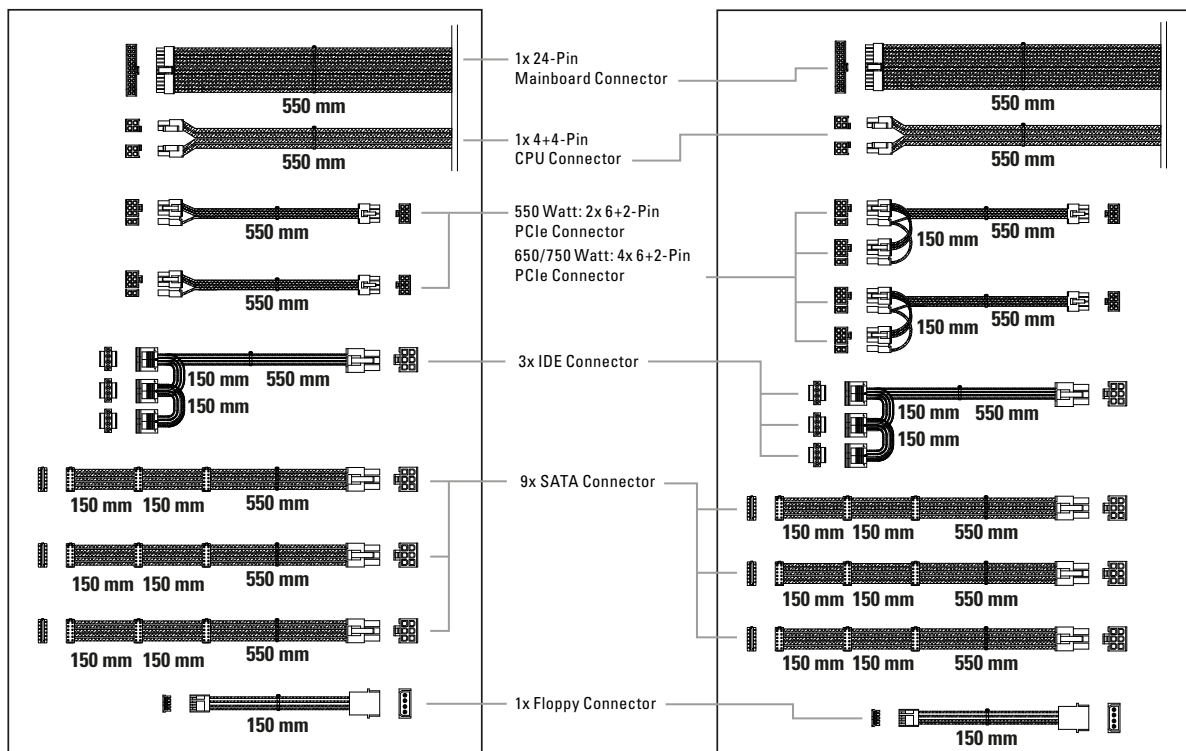
3x IDE Connector

Note:

Please ensure to only use the supplied set of modular cables. The use of other cables (e.g. cables from an older Sharkoon power supply series or cables from another manufacturer) may result in damage to the device.

4.2 Cable Diagram SilentStorm Icewind 550

4.3 Cable Diagram SilentStorm Icewind 650/750



5. Installation

If installing into an empty PC case, please continue to section 5.1. If a power supply is already installed, remove it first from the case.

To do so, proceed as follows:

1. Turn off your PC. Disconnect the power cord from the wall outlet and your power supply.
2. Open the PC case. For additional information, refer to the manual of the PC case.
3. Disconnect all cables between the power supply and the other PC components (e.g. mainboard, HDDs, drives, fans, etc.).
4. Remove the mounting screws connecting the power supply to the PC case and then carefully remove the power supply from the case.

5.1 Installing a Power Supply into a PC Case

1. Insert the power supply into the PC case and place it against the power supply bracket on the rear panel. For additional information, refer to the manual of the PC case.
2. Attach the power supply from the outside of the case using the provided screws. Ensure that the fan and air vents of the built-in power supply are not covered.

5.2 Connecting Mainboard and Graphic Card(s)

1. Plug the 20+4-pin mainboard connector (Fig. 1) into the respective port on the mainboard.
2. If your mainboard also features either a 4-pin or 4+4-pin CPU connector, connect the plug with the mainboard port (Fig. 2).

Note:

The power connection of the mainboard depends on the vendor and may vary. For detailed information on how to establish the power connector, please refer to your mainboard's manual.

3. If your PCIe graphics card requires an additional power supply, connected the 6-pin or 6+2-pin PCIe connector to ensure the graphics card receives a stable power supply (Fig. 3).



Fig. 1: 24-Pin Mainboard Connector

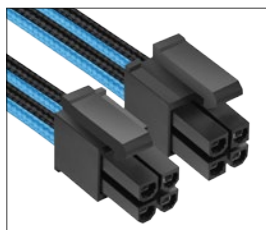


Fig. 2: 4+4-Pin CPU Connector

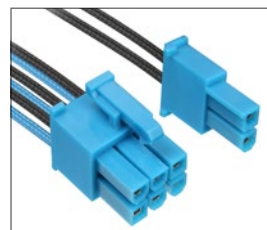


Fig. 3: 6+2-Pin PCIe Connector



5.3 Connecting Optical Drives and Other Peripheral Devices

Connect the IDE connector (Fig. 4), SATA connector (Fig. 5) and the Floppy connector (Fig. 6) with the appropriate peripherals.

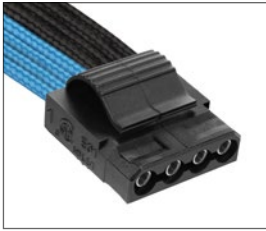


Fig. 4: IDE Connector

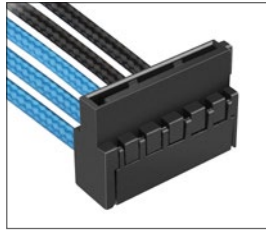


Fig. 5: SATA Connector

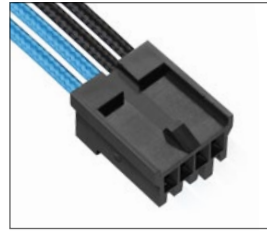


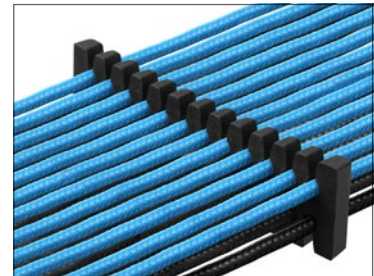
Fig. 6: Floppy Connector

Note:

For additional information, refer to the respective manuals of your drives and peripheral devices.

5.4 Attaching the Cable Combs

Using the included cable combs, the power supply cables can be organized for better clarity. The cable combs hold the cables tightly together, keeping the case tidy. To attach the cable combs, first arrange the individual cables of the respective connector so that they all lay neatly together. Depending on the cable, connect up to four cable combs at a distance of approx. every 10 to 15 centimeters on the bundled cables of the respective connector. If necessary, move the attached cable combs to re-tighten the cables.



5.5 Connecting the Cables to the Power Supply

Finally, connect the modular cable according to the connection options to the power supply (see Section 4).

5.6 Checking All Connections

Ensure that all devices are properly connected. Close the PC case. Connect the power cord with the power supply and wall outlet. Turn the power supply on. This completes the installation of the power supply.



On/Off Switch of the Power Supply

Note:

All connectors are designed to avoid misconnection. If the connectors are unable to connect to the main-board, drives or peripheral devices, please check if both connectors are attached in the correct orientation. Do not force to plug the connectors within the incorrect orientation, nor modify any of the components, as this will damage the power supply and other hardware. SHARKOON warranty does not cover damage cause by incorrect handling.



6. Troubleshooting

If the power supply does not work properly, please check the following:

1. Is the power cord correctly inserted into a wall outlet and the power inlet of the power supply?
2. Ensure that the on/off switch is in the "I" position.
3. Check if the 20+4-pin mainboard connector and the 4+4-pin CPU connector are correctly attached to the mainboard.
4. Check if the cable is securely connected to the port of the peripheral devices.
5. Unplug the power cord from the wall outlet and let the power supply rest for about 10 minutes.
This will trigger a reset of the protection circuitry.

If the system still does not start, please contact support@sharkoon.com.

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Disposal of your old product:

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.



When this crossed-out wheeled bin symbol is attached to a product, it means the product is covered by the European Directive 2012/19/EU.

Please be informed about the local separate collection system for electrical and electronic products. Please act according to your local rules and do not dispose of your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences to the environment and human health.

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