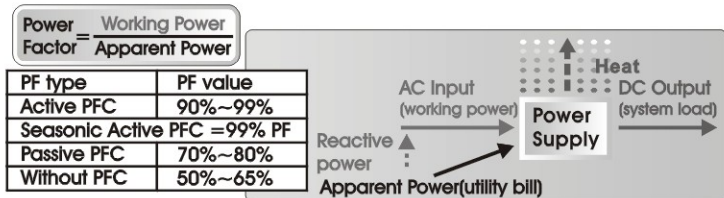


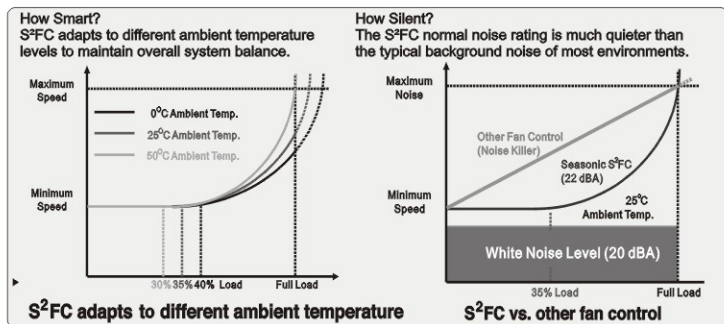
# I. Run Efficient, Run with Seasonic:

Thank you for choosing the Seasonic S12 & Energy+ series power supply, designed and manufactured by Sea Sonic Electronics, a professional designer and manufacturer of switch mode power supplies since 1975. Seasonic is dedicated to provide environment-friendly power conversion solutions with higher efficiency, higher output power and lower noise. All Seasonic products are manufactured in our ISO9001 & ISO 14001 certified factory to ensure the highest quality and reliability.

**ACTIVE PFC EXPERTS:** Sea Sonic Electronics is the first power supply manufacturer to implement Active PFC (Power Factor Correction) as a cost effective solution for volume production.



**SILENT FOCUS:** Sea Sonic Electronics is well known for design of silent running power supplies. The concept of stepped exponential fan control, dubbed as Smart & Silent Fan Control (S<sup>2</sup>FC), was first created and implemented by Seasonic.



## 80 PLUS Certification:

Sea Sonic Electronics is the first power supply manufacturer to qualify for the tough 80 PLUS Energy Efficiency Certification, meaning that it is at least 80% efficiency across a range of loads of 20%, 50% & 100% at wide range AC input. True energy conservation and improved power quality & reliability.



## II. Special Features:



### Dual Magnetic Amplifiers [Mag-Amp]

Cross regulation tolerance on +12V lines are improved from standard 5% to 3% for optimized stability. (\*applies to S12 Energy+ 550 & 650 models)



### Multiple +12V Outputs

Enhanced +12V current capability broadens utilization possibilities.



### High Reliable Aluminum Electrolytic Capacitors

Top quality components increase product life & reliability.



### Super High Efficiency [S12 Energy+ 550 & 650 can up to 88%]

Optimal solution for lower energy consumption, noise & heat.



### Active Power Factor Correction [99% PF]

Reduces line loss & power distortion.



### Double Forward Converter Design

Advanced topology for highest efficiency.



### Universal AC Input [Full Range]

Plug & run safely anywhere in the world.



### Smart & Silent Fan Control [S<sup>2</sup>FC]

Smart thermal control to balance noise & cooling.



### 12cm Ball Bearing Cooling Fan

Increases airflow & lifetime and reduces rotation speed and noise.



### Soft-Mounting Rubber Cushions

Reduces fan rotation & vibration noise.



### Ultra Ventilation [Honey Comb Structure]

Minimized airflow resistance for maximum cooling.



### Universal Video Card Support

Supports new PCI-E video card technologies.



### Patented Easy Swap Connector

Unplug the connectors easily & quickly.



### All in One DC Cabling Design

Supports PC, IPC, workstation, server & dual CPU systems.  
(\*applies to models 430W and above)



### 3 Year Warranty

Our commitment to superior quality.

### III. Product Information:

#### 1. AC input & DC output voltages (100~240V , 50 / 60 Hz )

Model	+3.3V	+5V	+12V1	+12V2	-12V	+5Vsb	+3.3V & +5V	Total Power
<b>S12-330</b>	20A	20A	8A	14A	0.8A	2A	120W	330W
<b>S12-380</b>	22A	21A	10A	15A	0.8A	2A	130W	380W
<b>S12-430</b>	30A	30A	14A	15A	0.8A	2A	150W	430W

Model	+3.3V	+5V	+12V1	+12V2	+12V3	+12V4	-12V	+5Vsb	Total Power
<b>S12Energy+550</b>	24A	30A	18A	18A	18A	18A	0.8A	3A	550W
	170W		41A						
<b>S12Energy+650</b>	24A	30A	18A	18A	18A	18A	0.8A	3A	650W
	170W		52A						

#### 2. Total Protection

Over voltage / over power / short circuit protection

Total protection for your power supply, your system and yourself.

#### 3. Operating environment

Operating temperature: 0 to 50°C. Relative Humidity: 20% to 80%.

(The rated power will reduce from 100% to 80% from 40°C to 50°C)








Shipping/ Storage temperature: -40°C to 85°C.

Relative Humidity: 10% to 95%.

#### 4. MTBF

Typically over 100,000 hours at 25°C under full load, excluding the DC fan.

#### 5. Wire Configuration

Model \ Wires	 Main Power (20 / 24P)	 ADX12V (4P)	 EPS12V (8P)	 5.25" HDD (4P)	 3.5" FDD (4P)	 Serial ATA Connector	 PCI-E (6P)
<b>S12-330</b>	1	1	0	6	2	4	1
<b>S12-380</b>	1	1	0	6	2	4	1
<b>S12-430</b>	1	1	1	6	2	4	1
<b>S12Energy+550</b>	1	1	1	9	2	6	2
<b>S12Energy+650</b>	1	1	1	9	2	6	2

## IV. Power Supply Installation:

Step 1 :Make sure that your system is turned off and unplugged.

(Replacement) Disconnect the power cord from your old power supply.

Step 2 :Open your computer case. If necessary, consult your computer's user guide for details.

Step 3 :(Replacement) Disconnect all the power connectors from the motherboard and the peripheral devices. Make sure that there are no devices connected to your old power supply. Then remove the old power supply from your system.

Step 4 :Position Seasonic PSU into your computer chassis, and secure it with screws provided.

Step 5 :Connect the power connectors to your motherboard and peripheral devices.

**Check that all cables and wires are securely connected.**

- Attach the 20/24pin Main Power Connector to 20/24pin connector on your motherboard,
- Attach the 4/8pin +12V Power Connector to the 4/8pin connector on the MB.
- Attach the Peripheral 4pin Power Connector to the peripheral. Serial ATA Connectors are for your hard disks with Serial ATA interface.
- Attach the Floppy Drive Power Adapter to the floppy.
- Attach the 6pin +12V Power Connector(s) to the PCI-E graphic card(s).

Step 6 :Close your computer case.

Step 7 :Connect the power cord to the Seasonic power supply.

Step 8 :Switch the "I/O" switch of power supply to "I" status, and then turn on your computer.

## V. Warnings:

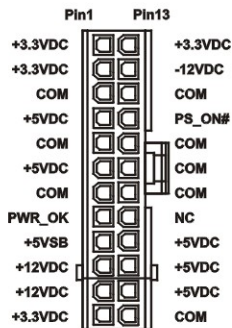
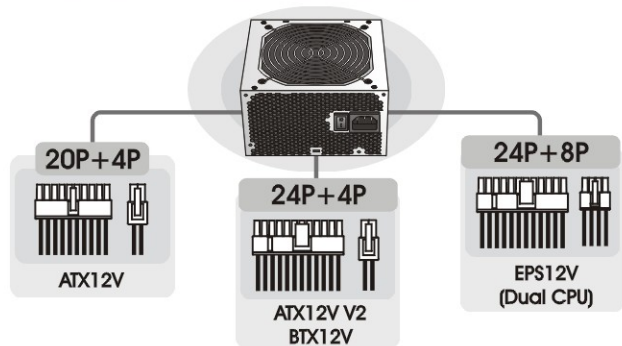
- ⊘ Do not open the cover of the power supply case. Warranty is void if the cover is removed. Under no circumstances should the power supply cover be opened. There are dangerous high voltages inside the power supply.
- ⚠ Please keep the power supply away from humidity, and operate it in the proper environment.
- ⚠ The PSU is suggested to face downwards to help the CPU dispel the heat.

## VI. Self Trouble-Shooting:

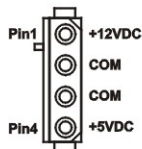
If the power supply fails to function properly, please check the following before returning for repair:

1. Is the power cord plugged properly into the electrical outlet and into the AC inlet ?
2. Ensure that the "I/O" switch on the power supply is switched to "I" status.
3. Check that all power connectors are properly connected to all the components.
4. Please turn-off and turn-on the power supply with the I/O switch a few times with at least 1 second in the off state to reset the power supply unit.

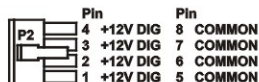
# VII. Power Connector Introduction:



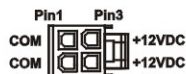
20/24 Pin Main Power Connector



Peripheral Power Connector



8 Pin Dual CPU Power Connector



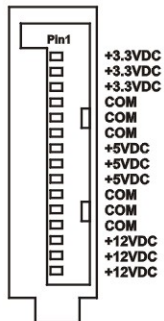
4Pin +12V Power Connector



Floppy Drive Power Connector



PCI Express Connector



Serial ATA Connector