



EDGE



EDG650
POWER SUPPLY
USER'S MANUAL



EDG650

Antec's EDGE series is the pinnacle of power supplies. EDGE is fully modular with a revolutionary 18+10-pin MBU socket for the needs of tomorrow. By using a PSU that is 80 PLUS® GOLD & ErP Lot 6: 2013 certified, operating up to 92% efficient, you can reduce your electricity bill by up to 20% when compared to many other power supplies. EDGE's innovative 16-pin sockets create a new level of flexibility by doubling the modular connectivity, supporting two different 8-pins connectors and even future connectors of 10, 12, 14 or 16-pins. All cables are darkened and also flat (except MBU cable) to become Flat Stealth Wires and are thus nearly invisible in your chassis. 2 High Current Rails and a ~99% +12V output ratio maximize EDGE's capabilities to power the latest CPU's & GPU's. CircuitShield™ makes EDGE safe and reliable in any environment with its 7 industrial-grade protections. Backed by a 5 year warranty and lifetime global 24/7 support, EDGE embodies everything a power supply can accomplish today.

STANDARDS AND FEATURES

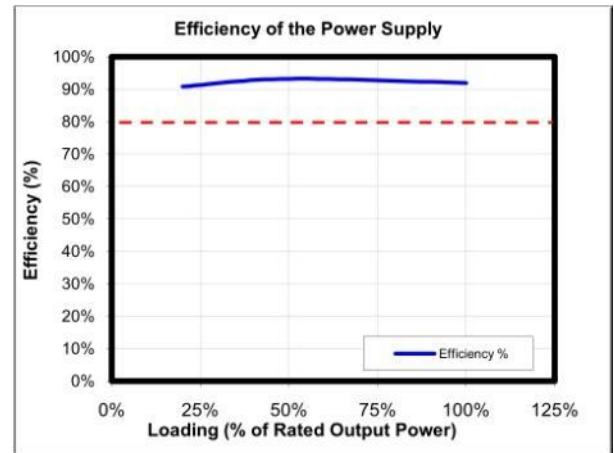
The connectors and power specifications of the EDG650 PSU are all compatible with ATX12V v2.4 and EPS12V v2.92 specifications. The EDG650 features Universal Input, which automatically senses when you connect the power supply to any AC power source between 100 - 240V without setting a voltage switch. This power supply also features Active Power Factor Correction (PFC), which improves the power factor value of the power supply by altering the input current wave shape, helping to power transmission across the grid.

SYSTEM PROTECTION

A variety of industrial-grade safety circuitry will help protect your computer: Over Current Protection (OCP), Over Voltage Protection (OVP), Short Circuit Protection (SCP), Over Power Protection (OPP), Over Temperature Protection (OTP), Surge & Inrush Protection (SIP) & No Load Operation (NLO). Sometimes the PSU will "latch" into a protected state. You will need to power off the PSU and clear the fault before it will function again. There are no user-replaceable fuses in your EDG650.

80 PLUS® CERTIFICATION

80 PLUS® certification is the most widely recognized independent standard in power supply efficiency. An 80 PLUS® certified power supply uses less energy and generates less heat to stay cooler, run quieter and last longer. The EDG650 has been 80 PLUS® GOLD certified to be at least 87% efficient at a wide range of operating loads; this will lower your operating costs and help protect the environment.



POWER OUTPUT

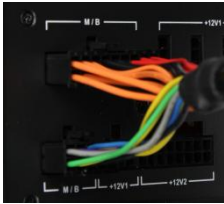
To see the output capacity and regulation for each different voltage, see table 1.

TABLE 1

Output Voltage	Load Max.	Regulation	Ripple & Noise
+12V ₁	35A	± 5%	< 120 mV
+12V ₂	35A	± 5%	< 120 mV
+3.3V	20A	± 5%	< 50 mV
+5V	20A	± 5%	< 50 mV
-12V	0.3A	± 10%	< 120 mV
+5Vsb	2.5A	± 5%	< 50 mV

MODULAR CABLE JACKS

Caution: Please connect only cables provided with this EDG650. Other cables may not be compatible!
Please mount the PSU carefully into the case, if you are using the Anti-Noise De-Couplers. Some cases might be incompatible with them.

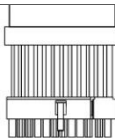
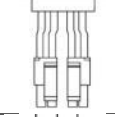
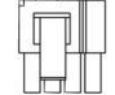
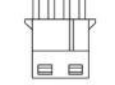
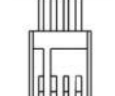
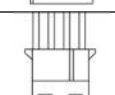


18+10-pin MBU connection



You can connect 1 or 2 modular 8-pin cables into any of the 16-pin sockets

TABLE 2

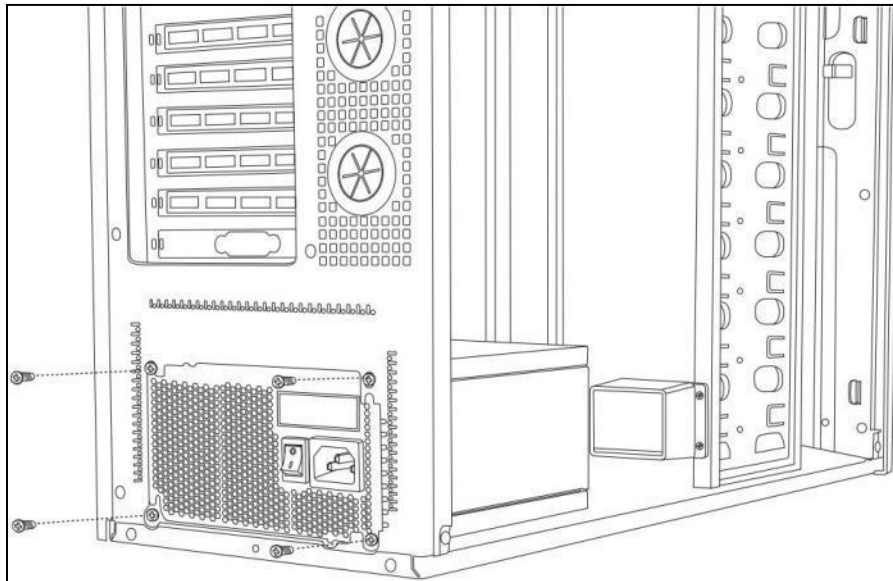
Cable Quantity	Connectors	Socket	Description
1	 X 1	18-pin & 10-pin	24(20+4)-pin Motherboard
1	 X 1	8-pin	8(4+4)-pin ATX12V/EPs12V
2	 X 2	8-pin	8(6+2)-pin PCI-E
1	 X 4	5-pin	Molex + FDD
	 X 1		
2	 X 4	5-pin	SATA
1	 X 2	5-pin	Molex
	 X 1		Molex

INSTALLATION

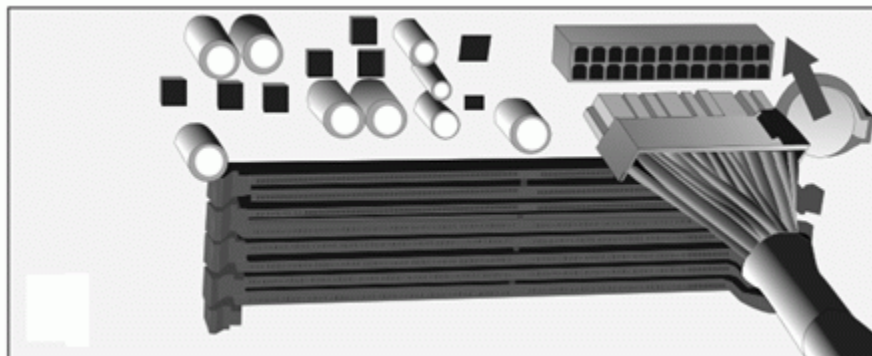


Please mount the PSU carefully into the case, if you are using the Anti-Noise De-Couplers. Some cases might be incompatible with them.

Install the PSU into either the top or bottom of your case with the four screws provided. Refer to your case manual if you are unsure where the power supply should be installed.

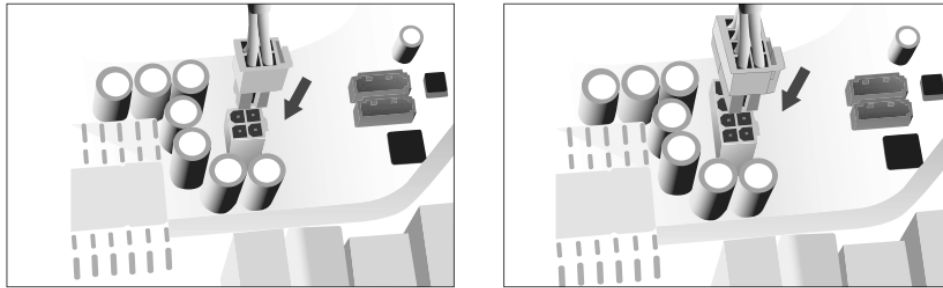


Connect the 24-pin main power connector to your motherboard.

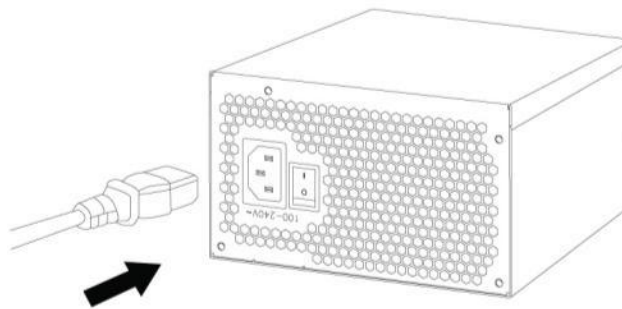


Connect the 8-pin or 4+4-pin connector for the CPU. If your motherboard has an 8-pin socket with a cover on some of the openings, we recommend that you remove the cover and use the 8-pin connector.

Note: Please also refer to your motherboards manual for any special instructions.



Connect the AC power cord to the power supply AC inlet. Be sure to use the heavy-duty cord supplied with your PSU.



PCI-E graphics cards use different amounts of power. For some, a single 6-pin connector is sufficient, making the hardwired connector the preferred choice. More powerful cards use multiple connectors, including the advanced 8-pin PCI-E connector. The 8-pin PCI-E connector on the PSU can be used as either a 6- or 8-pin connector.

Hard drives, optical drives (CD/DVD/BluRay™) and other accessories will use either the older 4-pin Molex connector or the newer 15-pin SATA connector. 4-pin Molex connectors have two black, one yellow and one red wire. The SATA connector has an additional orange power wire.

When you have all the connections secured, turn the switch on the PSU to the “I” position.

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