



# BFG GOLD ATX3.0

1000W  
1200W





# General Information

## BFG GOLD ATX3.0

The brand new **BitFenix Gold 1000W** and **1200W** ATX3.0 and PCIe Gen 5 certified power supplies bring high capacity output in a compact form factor along with a slew of safety, efficiency and convenience features. Certified with an 80+ gold standard and with an efficiency level of over 90% under typical loading through LLC Resonant Half-Bridge Power Converter easily, these new PSUs are not only high performance but also extremely efficient. The new converter design allows for up to 600 watts of power through to the GPUs enable support for the latest and greatest of the current generation GPUs. Thanks to the use of high quality active PFC and other circuitry, the output power of the power supply is extremely smooth extending your PC's lifetime. The custom designed zero-db mode and PWM controlled low noise fan keeps your power supply whisper quiet while you battle at the loudest warzones.



### Model Name:

BGA1200W, BGA1000W

### Max Wattage:

1200W, 1000W,

Type: ATX 3.0/ EPS12V 2.92

PFC: Active PFC

Efficiency: 80Plus Gold Certified



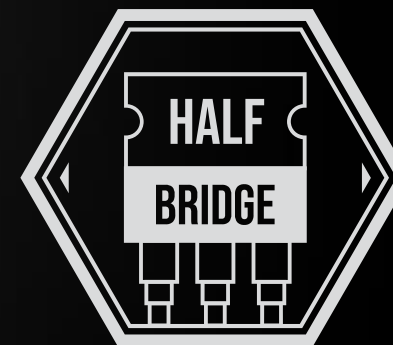


### **PCIe Gen 5.0 Support for NV 40+ Series GPUs.**

Please use the correct cable according to the requirements of the graphics card wattage, and must be correctly installed on the graphics card interface.



### **ATX 3.0 Support**



### **Half-bridge Resonant Converter can Output High Power Extremely Efficiently.**

Due to the unique design, the Half-Bridge Resonant Converters can output significantly higher power extremely efficiently and the resulting output shows minimal voltage and current ripple. They can operate extremely efficiently across the load curve. This leads to an efficient, high power PSUs with high reliability and component life at the cost of high manufacturing cost.



Guaranteed Continuous Power Delivery with 24h/7d Operation.



LLC Resonant Topology Lowers Power Losses and Boosts Efficiency During AC-DC Voltage Switching.



PF value up to 0.96  
 $\geq 0.96$  at 115Vac/60 & 230Vac 50Hz (Full load)



Up To 90% Efficiency @ Typical Loading.



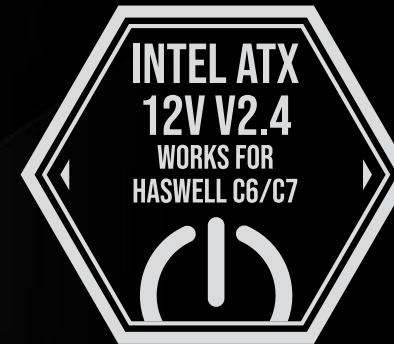
Advance Voltage Switching Circuit from +12V to Minor-rail to Provide the Best Stability and Output Quality.



Supports Industrial Servers/ Workstations with Dual CPU 4+4Pin.



High Power +12V Output Allows for any High-end Graphic Cards under all Power Requirements.



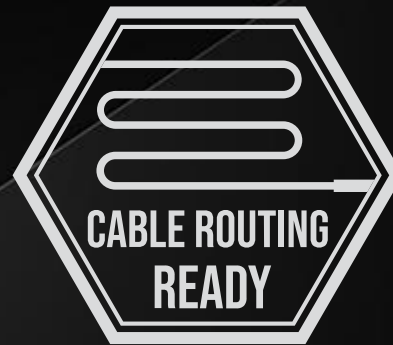
Supports Intel C6/C7 Sleep States.



135mm Fluid Dynamic Bearing Fan Optimized for Silence and Long Service Life.



Smart Fan Control Curve.



18AWG Long Output Cables: 650mm for CPU & PCI-E 2.0.



Ensure Tight DC Voltage Regulation and Extended Component Life.



Over-Current Protection (OCP)  
Under Voltage Protection (UVP)  
Short Circuit Protection (SCP)  
No Load Operation (NLO)

Over Voltage Protection (OVP)  
Over Power Protection (OPP)  
Over Temperature Protection (OTP)  
Surge & Inrush Protection (SIP)



6+2 Pin PCI-E 2.0 Connectors for Multi-GPU Support.



Complies with the Latest European Environmental Regulations.



# GEN 5 Test

## Test Condition

Table 3-1: PCIe\* AIC and PSU Power Budget used for Peak Power Excursion

Power Excursion % of PSU Rated Size PSU ≤ 450 Watts & PSUs without 12VHPWR Connector	Power Excursion % of PSU Rated Size PSU > 450 Watts & 12VHPWR Connector present	Time for Power Excursion (T <sub>E</sub> )	Testing Duty Cycle
150%	200%	100 μs	5%
145%	180%	1 ms	8%
135%	160%	10 ms	12.5%
110%	120%	100 ms	25%
100%	100%	Infinite	--

1. AC Input: 115Vac/60Hz, 230Vac/50Hz
2. Load slew rate is 5A/uS
3. Capacitive Load: 12V1/3,300uF, 12V2/3,300uF.

Voltage Regulation	+5%, -7% (Vout)
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Test Result: PASS AMB: 25°C

Item	Max(V)	Min(V)
PCIE GEN5_200%L_115Vac/60Hz@CH1: Current; CH2: 12V3; CH4: POK	12.308	11.489
PCIE GEN5_200%L_230Vac/50Hz@CH1: Current; CH2: 12V3; CH4: POK	12.348	11.478
PCIE GEN5_180%L_115Vac/60Hz@CH1: Current; CH2: 12V3; CH4: POK	12.290	11.694
PCIE GEN5_180%L_230Vac/50Hz@CH1: Current; CH2: 12V3; CH4: POK	12.266	11.656
PCIE GEN5_160%L_115Vac/60Hz@CH1: Current; CH2: 12V3; CH4: POK	12.249	11.799
PCIE GEN5_160%L_230Vac/50Hz@CH1: Current; CH2: 12V3; CH4: POK	12.241	11.790
PCIE GEN5_120%L_115Vac/60Hz@CH1: Current; CH2: 12V3; CH4: POK	12.084	11.962
PCIE GEN5_120%L_230Vac/50Hz@CH1: Current; CH2: 12V3; CH4: POK	12.113	11.995



ATX 3.0 Ready / PCI-E 5.0 Ready  
(12VHPWR cable)

Tested under the most rigorous conditions, the BitFenix **BFG1000W** & **BFG1200W** has passed all the PCIe Gen 5 standards with flying colors. They support up to 2x power excursions for a duration of over 100μs guaranteeing stable power outputs for even the latest top tier graphic cards. The 12VHPWR connector is also tested for reliability and low resistance to offer peace of mind.



ATX 3.0 Ready / PCI-E 5.0 Ready (12VHPWR cable)

## The PCIe Gen 5 12+4Pin Modular Cable

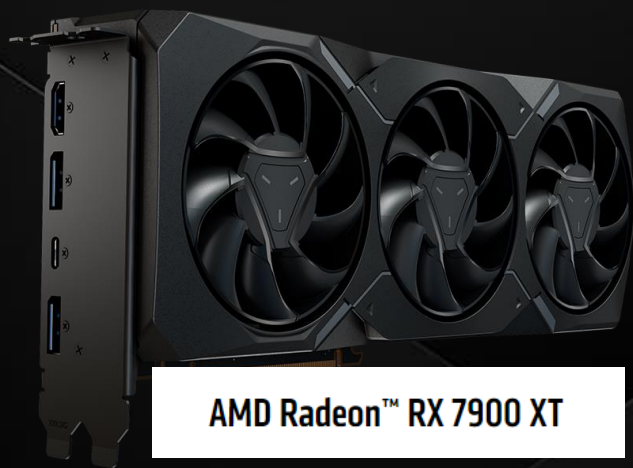
The PCIe Gen 5 12+4Pin modular cable allows the power supply to support PCIe Gen 5 advanced graphics cards.

This cable conforms with the UL specifications for 16AWG - UL 1007 cable standard offering excellent conductivity and heat resistance. The terminals of the connectors are made of a high-quality copper alloy, which can carry a current of up to 9.2A per pin with minimum resistance resulting in excellent conductivity.

Our connectors are adopting the 4 Spring design as suggested by Intel. According to Intel, the advantage of the 4 SRPING design is that it is more reliable, durable, and it can provide a more secure connection compared to the traditional design.



**GeForce RTX 4080**



**AMD Radeon™ RX 7900 XT**



Active PFC

Main Capacitor

Modular PCB

# Topology 1200W/1000W

EMI Circuit 2

Main  
Transformer

DC to DC Circuit

DC Output

12VHPWR  
Connector

EMI Circuit 1

AC Input



All Japanese Capacitor

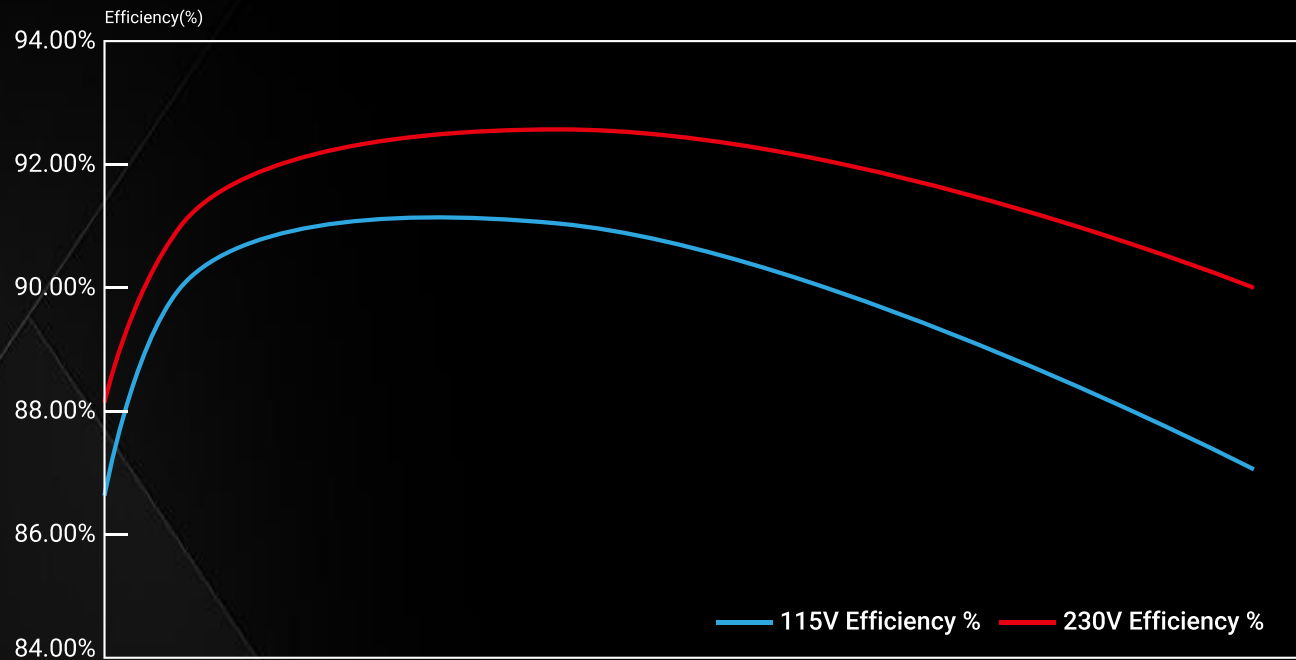


Solid Capacitor

1000W-1200W

Depending on the wattage of different PSUs, the main capacitor and related hardware will be different.





Loading	+12V	+5V	+3.3V	-12V	+5Vsb	Required minimum efficiency
20%	17.80A	2.79A	2.79A	0.05A	0.53A	87%
50%	44.49A	6.97A	6.97A	0.13A	1.33A	90%
100%	88.98A	13.94A	13.94A	0.27A	2.67A	87%

## HIGH EFFICIENCY

The 87+ high efficiency circuit guarantees both energy and money savings for the end user with the added benefits of 80% less heat output and stable power output. This translates to over 30% less power consumption in comparison to standard PSUs.

\*87+ ( 0% to 100% load)/ 90+ (40% to 70% load)

100-240V Full range design offer worldwide compatibility, and with high efficiency LLC, Active PFC, DC to DC circuits not only benefits you but also planet Earth with higher energy savings.

# Efficiency

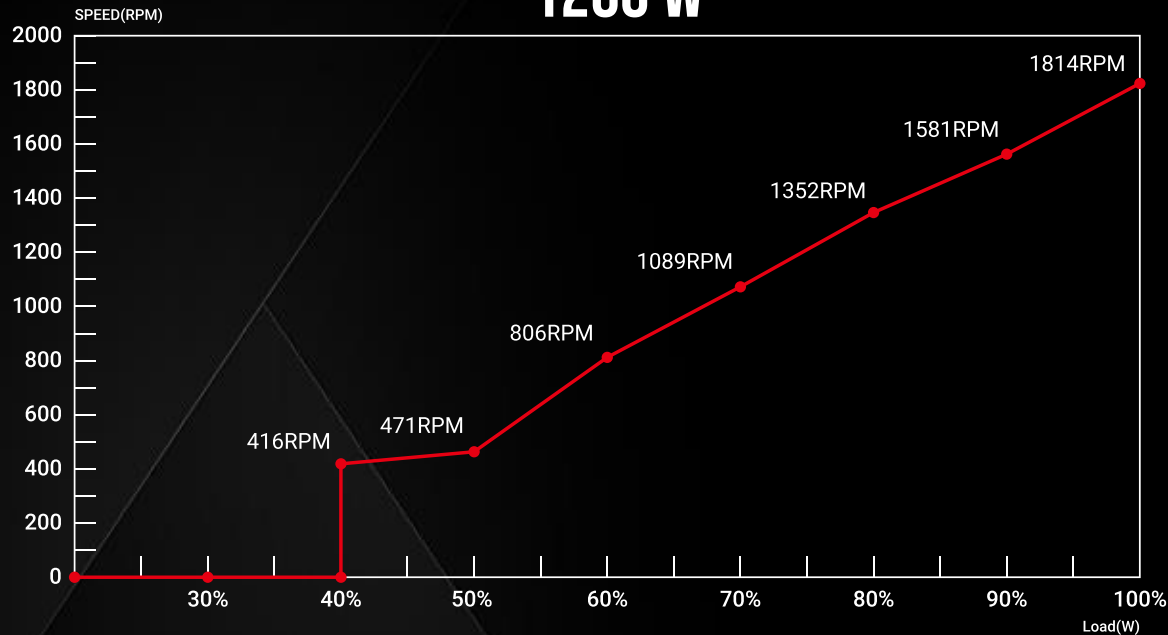
## 1200W/1000W

Model		BFG GOLD 1200W (CSZ1200W)							
AC Input Voltage & Temperature		115Vac @ 25°C							
Total Wattage		1200W							
Combine Wattage		1200W	120W		3.6W	15W			
Rail		+12V	+5V	+3.3V	-12V	+5VSB			
Max Current		100A	22A	22A	0.3A	3A	DC Power in Total(W)	AC Power ReadingI (W)	Efficiency(%)
20% Loading	Current(A)	17.821	2.579	2.58	0.052	0.542	240.47	266.46	90.25%
	Voltage(V)	12.1024	5.02	3.297	-11.988	5.009			
50% Loading	Current(A)	44.704	6.476	6.474	0.131	1.343	600.50	660.54	90.91%
	Voltage(V)	12.0444	5.015	3.291	-12.002	4.994			
100% Loading	Current(A)	89.579	12.95	12.945	0.272	2.694	1200.63	1367.2	87.8%
	Voltage(V)	12.0184	5.003	3.283	-12.034	5.002			

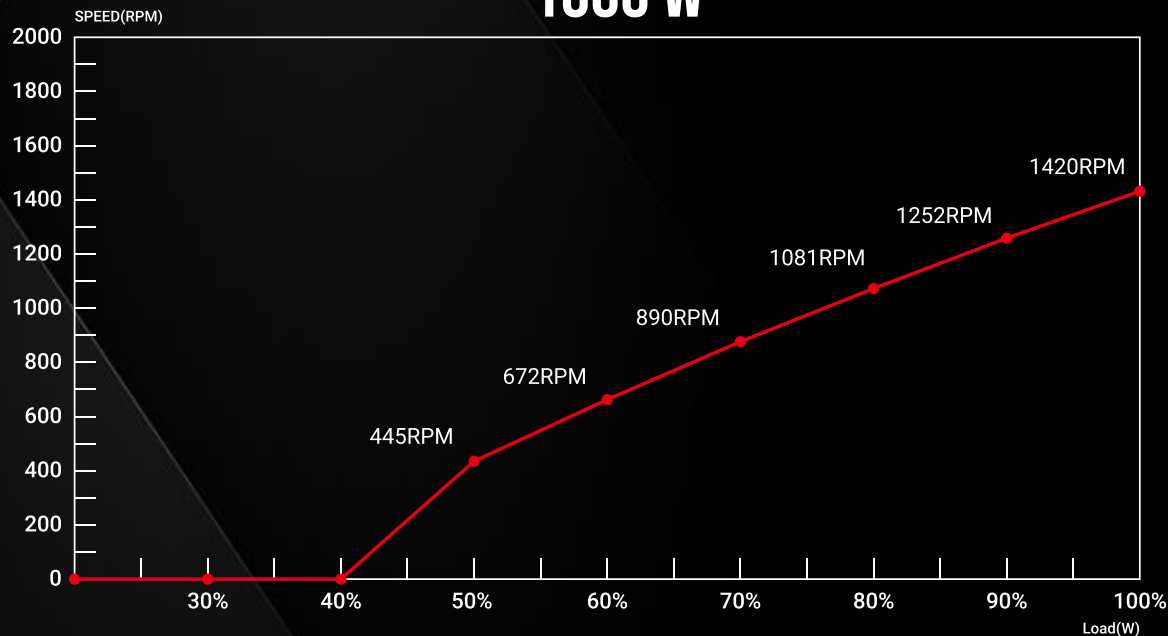
Model		BFG GOLD 1000W (CSZ1000W)							
AC Input Voltage & Temperature		115Vac @ 25°C							
Total Wattage		1000W							
Combine Wattage		1000W	110W		3.6W	12.5W			
Rail		+12V	+5V	+3.3V	-12V	+5VSB			
Max Current		83.4A	22A	22A	0.3A	3A	DC Power in Total(W)	AC Power Readingl (W)	Efficiency(%)
20% Loading	Current(A)	14.508	2.532	2.527	0.049	0.524	200.59	222.40	90.20%
	Voltage(V)	12.150	5.036	3.300	-11.981	5.037			
50% Loading	Current(A)	36.340	6.340	6.333	0.128	1.315	501.00	549.63	91.15%
	Voltage(V)	12.108	5.030	3.294	-11.998	5.095			
100% Loading	Current(A)	72.823	12.678	12.668	0.259	2.638	1000.87	1139.20	87.86%
	Voltage(V)	12.0708	5.028	3.289	-12.004	5.048			



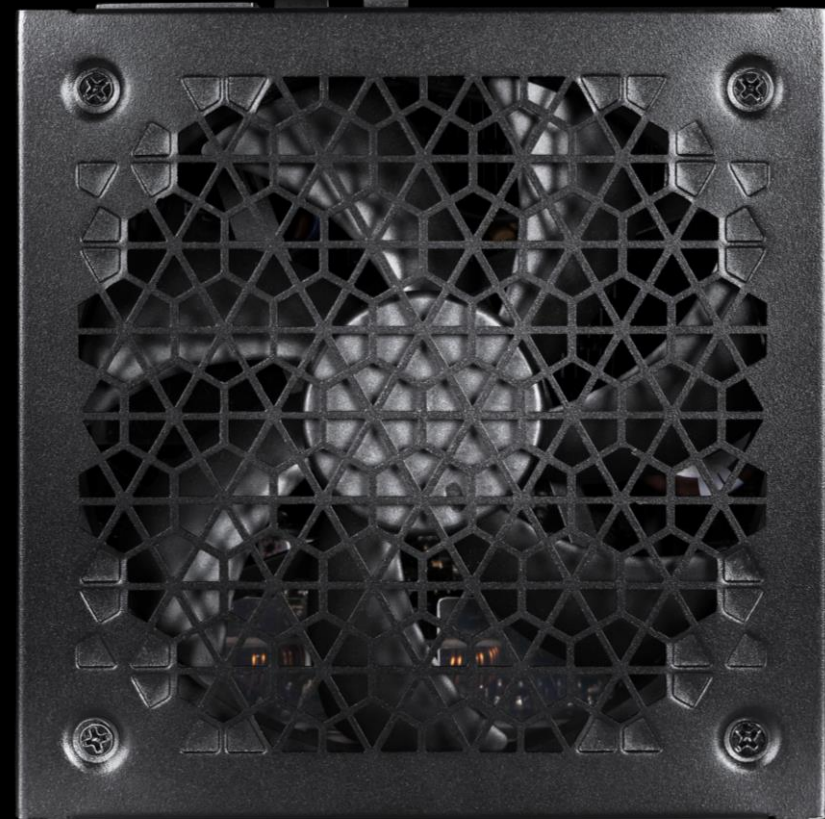
## 1200 W



## 1000 W

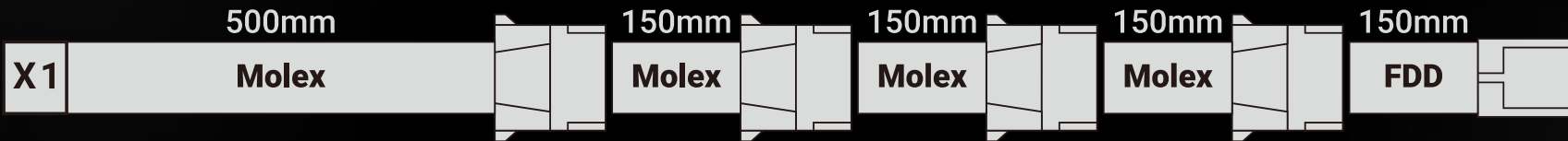
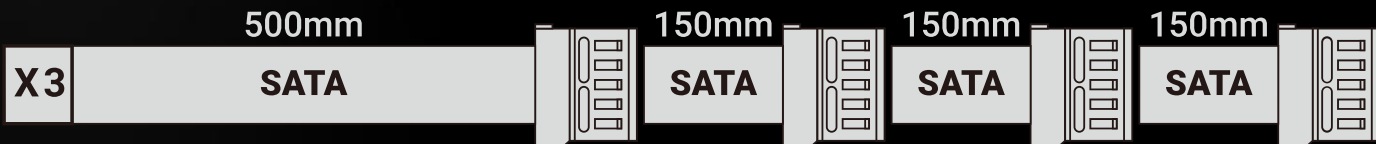
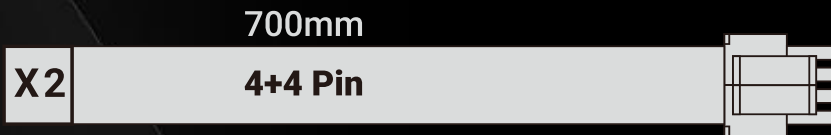
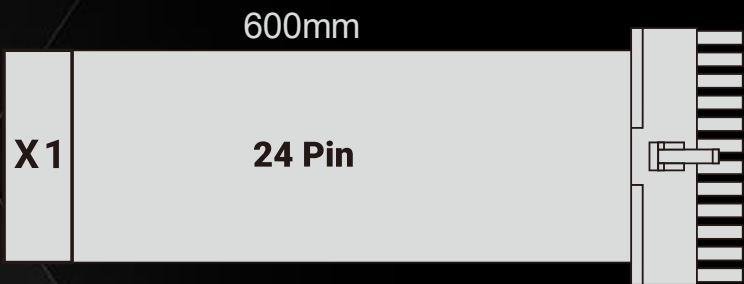


## PSU Thermal Solution



The BFG1000W and BFG1200W are equipped a ultra quiet 135mm Fluid Dynamic Bearing fan focused on low-noise and efficient-cooling. With a custom fan curve design, these PSUs can operate in Zero RPM Mode for up to 40% of loading and can operate at sub-500 RPMs for a majority of a typical user scenario. At full load it can quickly ramp up to 1800 RPM offer significantly higher CFM for rapid cooling unlike traditional PSU fans.

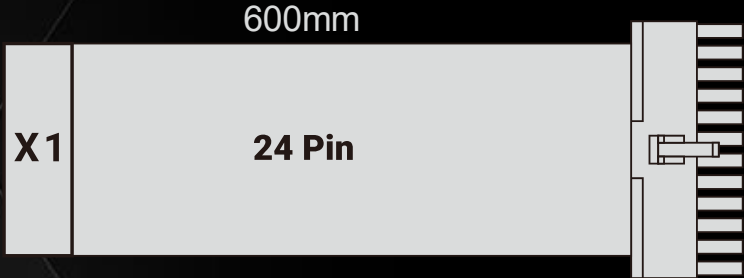
# Output Cable-1200W



M/B 20+4Pin	1
CPU 4+4Pin	2
PCIe 5.0 12VHPWR cable	1
PCIE 6+2Pin	6
SATA	12
Molex 4Pin	4
FDD	1



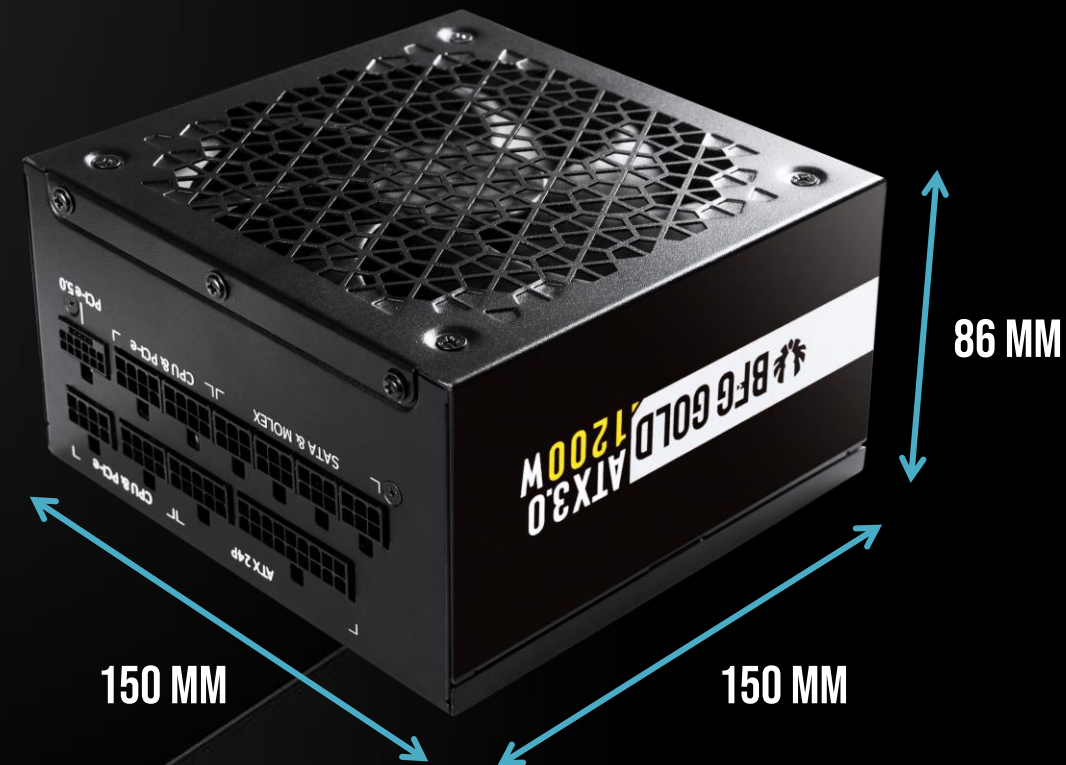
# Output Cable-1000W



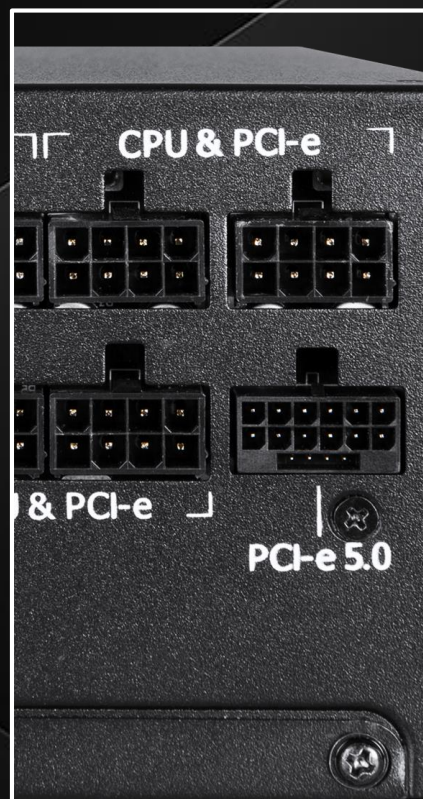
M/B 20+4Pin	1
CPU 4+4Pin	2
PCIe 5.0 12VHPWR cable	1
PCIE 6+2Pin	4
SATA	12
Molex 4Pin	4
FDD	1

# Housing

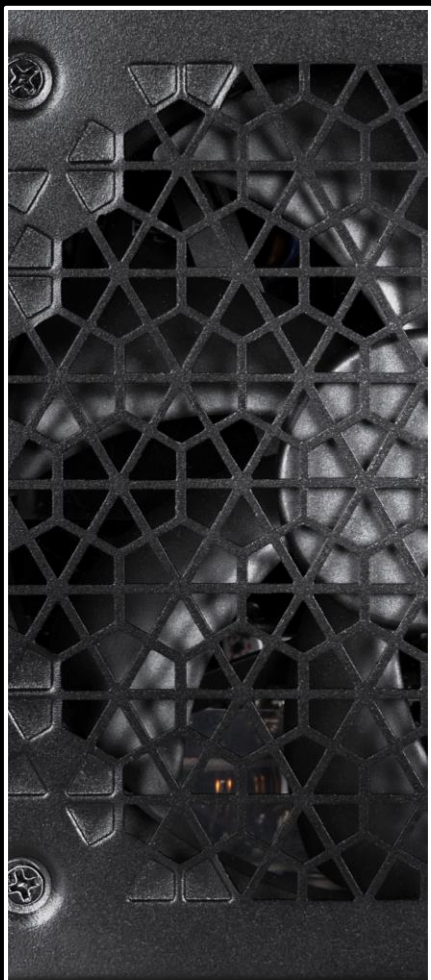
COMPACT DIMENSION



MODULAR DESIGN  
& CPU /PCI-E MIX  
12VHPWR CONNECTOR



ENVIRONMENT FRIENDLY,  
UNDER ROHS & WEEE REGULATIONS





# Spec Label

BFG GOLD ATX3.0 1200W					
AC INPUT (輸入 輸入)	100-240Vac 50-60Hz 15A				
DC OUTPUT (輸出 輸出)	+3.3V	+5V	+12V	-12V	+5VSB
MAX LOAD (輸出電流 輸出电流)	22A	22A	100A	0.3A	3A
MAX OUTPUT POWER (輸出功率 輸出功率)	120W		1200W	3.6W	15W
TOTAL POWER (瓦數 瓦数)	1200W				

## • WARNING! HAZARDOUS AREA

SAFETY INSTRUCTIONS:  
DO NOT REMOVE THE COVER  
NO SERVICEABLE COMPONENTS INSIDE.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.  
▪ 請勿開啟外蓋, 避免觸電! ▪ 请勿开启外盖, 避免触电!

## • WARNUNG! GEFAHRENZONE

SICHERHEITSHINWEISE:  
VOR DEM ÖFFNEN DES GERÄTES NETZSTECKER ZIEHEN.  
KEINE SERVICEIRELEVANTEN BAUTEILE ENTHALTEN.  
SERVICEARBEITEN SOLLTEN NUR VON AUTORISIERTEM  
FACHPERSONAL DURCHGEFÜHRT WERDEN.



**BFG GOLD**  
**ATX3.0**  
**1200W**



CAN ICES-003(B)/NMB-003(B)  
RoHS資訊: <http://www.cwt.com.tw/QueryROHS.aspx>  
Model No.(型號/型号): CSZ1200W

Switching Power Supply/ 電源供應器/ 电源供应器  
Made in China/ 中國製造/ 中国制造

製造商: 僑威科技股份有限公司  
製造商: 侨威科技股份有限公司  
Trade Mark: CWT

BFG GOLD ATX3.0 1000W					
AC INPUT (輸入 輸入)	100-240Vac 50-60Hz 15A				
DC OUTPUT (輸出 輸出)	+3.3V	+5V	+12V	-12V	+5VSB
MAX LOAD (輸出電流 輸出电流)	22A	22A	83.3A	0.3A	3A
MAX OUTPUT POWER (輸出功率 輸出功率)	120W		1000W	3.6W	15W
TOTAL POWER (瓦數 瓦数)	1000W				

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**BFG GOLD**  
**ATX3.0**  
**1000W**



CAN ICES-003(B)/NMB-003(B)  
RoHS資訊: <http://www.cwt.com.tw/QueryROHS.aspx>  
Model No.(型號/型号): CSZ1000W

Switching Power Supply/ 電源供應器/ 电源供应器  
Made in China/ 中國製造/ 中国制造

製造商: 僑威科技股份有限公司  
製造商: 侨威科技股份有限公司  
Trade Mark: CWT