SILENCE PERFORMANCE

WHISPER Product Kit

BWG850M | BWG750M | BWG650M | BWG550M | BWG450M

BINFENIX

General Information

WHISPER

7 YEAR WARRANTY

80 PLUS GOLD

Model Name:
BWG850M, BWG750M, BWG650M,
BWG550M, BWG450M
Max Wattage:
850W, 750W, 650W, 550W, 450W
Type: ATX12V 2.4/ EPS12V 2.92
PFC: Active PFC
Efficiency: 80Plus Gold Certified

LLC Circuit

Efficiency 92% Up to

SSI EPS 12V V2.92

Ripple & Noise reduction design (24Pin)

Intel ATX 12V V2.4 works for Haswell C6/C7

DC to DC Circuit

100% Japanese Capacitor 105°C

Date:2016/11/24

Features

Guaranteed Continuous power delivery with 24h/7d Operation

Using solid Capacitor to reduce up to 35% of ripple & noise to the motherboard.

LLC resonant topology brings lower power losses and boosts higher efficiency during AC-DC voltage switching.

PF value up to 0.99

Features

Up to 92% efficiency @ Typical loading.

Advance voltage switching circuit from +12V to miner rail to provide the best stability and output quality.

Works for Industrial server/ work station with dual CPU 4+4Pin (BWG750M/ BWG850M)

Most power on +12V will support higher level graphic card in all wattage range.

Features

works for Intel C6/C7 Sleep States

135mm silence-optimized and long-life Fluid Dynamic Bearing fan

Intelligent Fan Control curve defined

18AWG Long output DC cable, 650mm for CPU & PCI-E 2.0.

Features

Ensure tightest DC voltage regulation and longest components life.

Over Current Protection (OCP), Over Voltage Protection (OVP),
Under Voltage Protection (UVP), Over Power Protection (OPP)
Short Circuit Protection (SCP), Over Temperature Protection (OTP)
No Load Operation (NLO), Surge & Inrush Protection (SIP)

2 x 6+2pin PCI-E 2.0 connectors for multi-GPU Support (450W & 550W)
4 x 6+2pin PCI-E 2.0 connectors for multi-GPU Support (650W)
6 x 6+2pin PCI-E 2.0 connectors for multi-GPU Support (750W & 850W)

Complies with the latest European Environment Regulation

Features

BitFenix 24/7 customer service support and solid RMA service

Introduction

Introducing you the newest line up of BitFenix power supplies that boasts of extreme quality and world's best performance with 80+ Gold Efficiency and up to 92% efficiency at typical loading. The new BitFenix Whisper power supply line up comes with a wide range of power options starting with 450W all the way up to 850 incrementing by 100W.

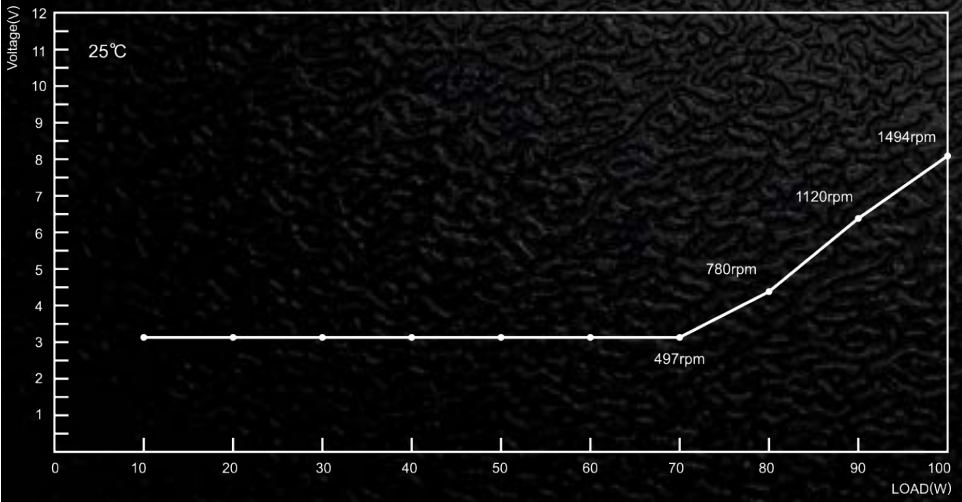
High Efficiency Layout

As the name suggests, Whisper is an extremely silent power supply with an 80+ Gold Efficiency certification. Because of the high efficiency layout and use of high quality components, the Whisper is capable of functioning with a very low noise and heat level while providing stable currents at highest loads.

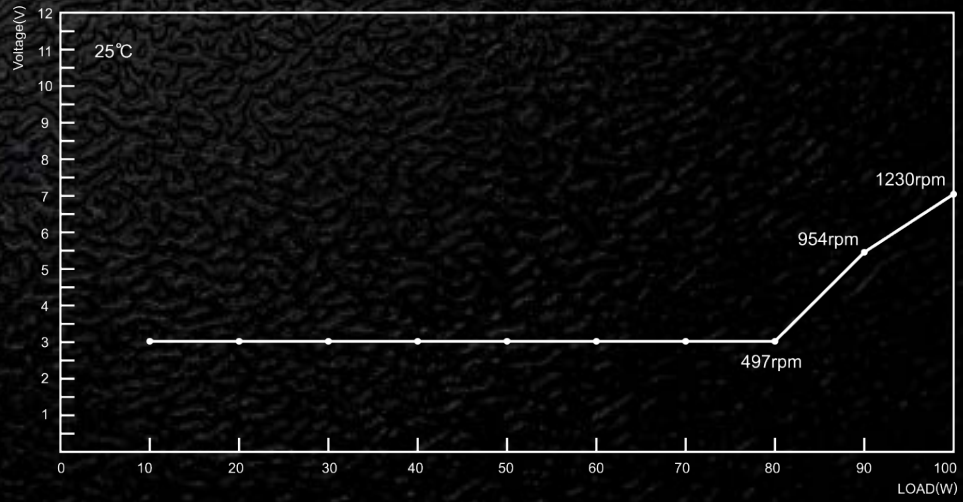
Intelligent Fan-Curve

Thanks to the use of an Intelligent Fan Control Curve the fan speed is intelligently controlled to minimize the noise levels while maintaining optimum temperatures. Whisper can operate at room temperature with minimum noise even at 60% load, meaning that the noise level is dead silent even carrying out intensive work loads

850W

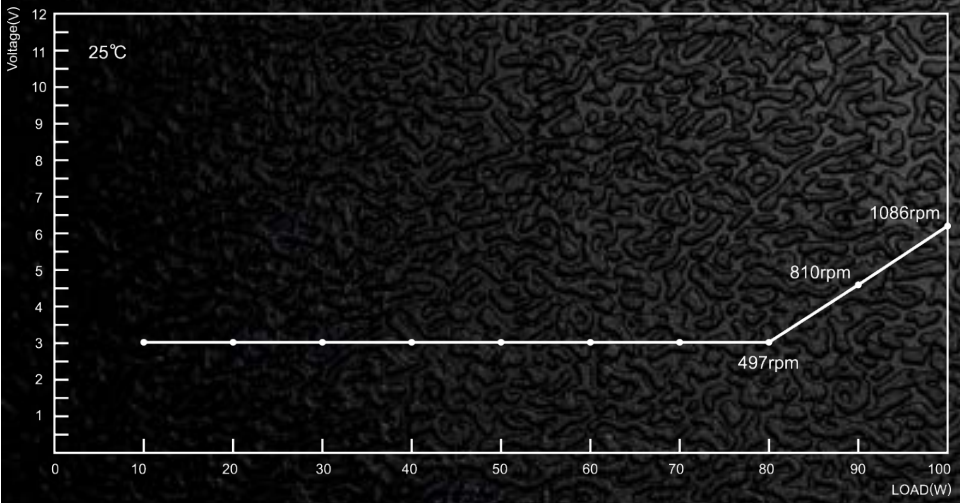


750W

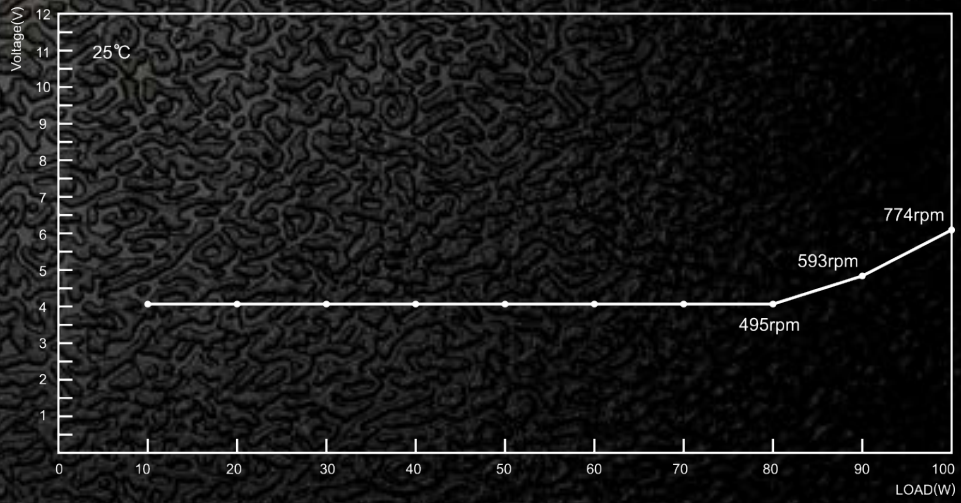


Intelligent Fan-Curve

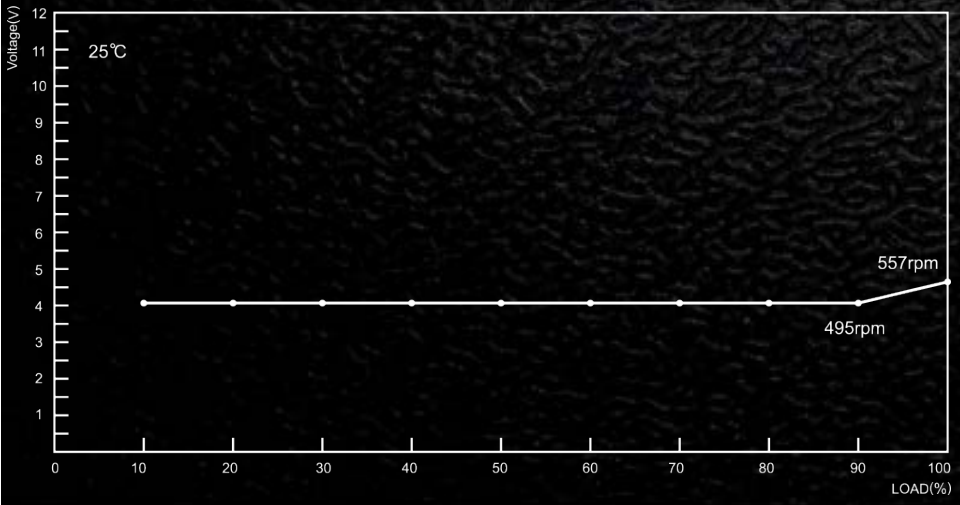
650W



550W



450W

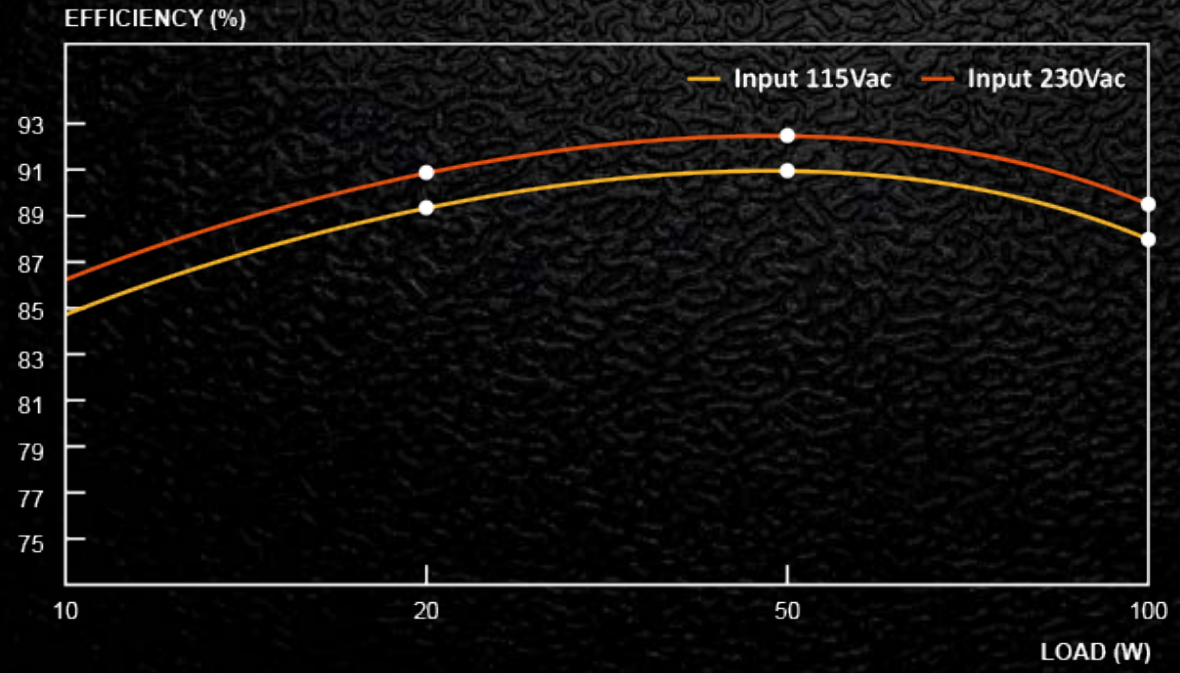


Industrial Quality Fan

Unlike regular PSUs, Whisper M comes with a 135mm FDB fan that starts working at a much lower voltage of 3.5v and the fan can start working at 500rpm ± 10%. Because of these unique features together with ultra-low bearing noise and high life expectancy of the fan, BitFenix Whisper can operate at noise levels lower than 18dBA and at 25°C(room temperature) while PSU load is lower than 60%.

Ultra Efficient

Whisper is rated at a Power Factor of 0.99, and is extremely efficient with an 80+ Gold efficiency certification. With 87+ (0% to 100% load)/ 90+ (40% to 70% load) high efficiency design, Whisper saves both energy and money for the user while providing extremely stable power output at a very low noise level.



Environmental Friendly

Generate up to 80% less heat and consume 30% less power than standard PSU's. BitFenix Whisper also fully supports Intel C6/C7 Sleep States which consumes very less energy when the system is at sleep. With LLC, Active PFC & DC-to-DC circuit with an 80+ gold certificate, BitFenix Whisper Power Supply saves energy and your environment while providing unmatched power quality for your computer hardware.

Dedicated Quad Rails

A dedicated quad rail design together with an advance voltage switching circuit from +12V to minor rail provides the best stability and output quality. The main quad +12V rails on all BitFenix Whisper models are dedicated as Motherboard + Peripherals, CPU, GPU 1 and GPU 2 (450W and 550W models only come with GPU1). All of these rails have dedicated Over Current Protection (OCP) circuits

Model		BWG850M										
AC Input Voltage & Temperature		115Vac @ 25°C										
Total Wattage		850W										
Combine Wattage		850W				120W		6W	12.5W			
Rail		+12V$_{MBPH}$	+12V$_{CPU}$	+12V$_{VGA1}$	+12V$_{VGA2}$	+3.3V	+5V	-12V	+5Vsb			
Max Current		25A	25A	40A	40A	22A	22A	0.5A	2.5A	DC Power In Total(W)	AC Power Reading(W)	Efficiency(%)
20% Loading	Current(A)	2.35	2.35	3.76	3.76	2.49	2.49	0.05	0.43	170.19	185.90	91.55
	Voltage(V)	12.110	12.115	12.120	12.113	3.348	5.045	11.850	5.060			
50% Loading	Current(A)	5.87	5.87	9.39	9.39	6.23	6.23	0.13	1.08	428.00	467.38	91.57
	Voltage(V)	12.080	12.102	12.113	12.102	3.330	5.028	12.190	5.043			
100% Loading	Current(A)	11.74	11.74	18.79	18.79	12.46	12.46	0.26	2.15	853.94	969.22	88.11
	Voltage(V)	12.047	12.083	12.095	12.080	3.300	4.997	12.930	5.012			

DC-to-DC Circuit

Due to the use of a separate DC-to-DC circuit to convert +12V to +5V and +3.3V, the output current from the Whisper is much more stable and smooth. This increase the system stability as well as the durability of components.

Maximum Power on 12V Rails

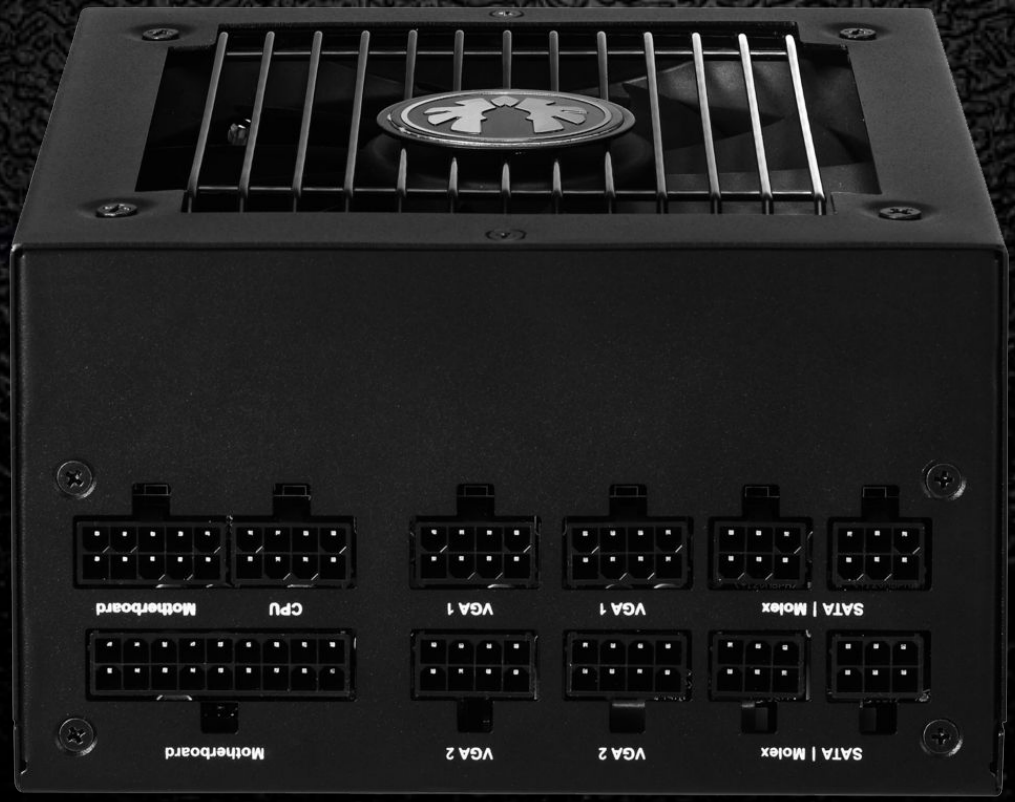
Whisper can deliver full power on +12V rails due to the use of practically set current load limits on different rails. Unlike on traditional Multi Rail PSUs, Whisper have a higher current capacity on GPU Rails and other rails to support even the most power hungry graphics cards and other components based on the actual demand with a dynamic power delivery .

User Friendly Design

To further ease the use of multi rail design, user can easily refer to the labeled power distribution table printed directly on the PSU to know how much power each rail supports. Connections are also individually labeled with the dedicated rails to connect the correct cable to provide sufficient power

Modular Cables

Performance is not the only focus of BitFenix Whisper, built to a simplistic yet elegant design BitFenix Whisper models are fully Modular with flat ribbon-style cables. These cables are 18AWG thick output DC cables and for CPU & PCI-E 2.0 they are 650mm long to fit in virtually any chassis.



High Performance Cables

The specially designed flat ribbon-style cables and connectors feature electronic components to stabilize the power delivered to the components increasing the durability as well as overclocking potential of the components. This further reduces the power drop caused by modular connections and makes sure the components get enough power to operate at optimum levels.

Alchemy 2.0 CSR Compatible

Combining with BitFenix Alchemy 2.0 CSR kit, BitFenix Whisper can be showcased with high quality single sleeved cables in any build

100% Industrial Japanese Capacitors

BitFenix Whisper power supplies uses 100% Japanese Industrial Capacitors ensuring tightest DC voltage regulation within ±2% and longest component life. Unlike standard Japanese Capacitors which are rated to work at a maximum temperature of 85°C, the Japanese Industrial Capacitors available in Whisper can function at a maximum temperature of 105°C.

BitFenix

Solid Capacitors

BitFenix Whisper use solid Capacitors to reduce up to 35% of ripple & noise to the motherboard that result in solid performance and high overclocking stability.

Support up to Industrial Servers

With availability of dual CPU 4+4pin cables on 750W and 850W, BitFenix Whisper not only supports mainstream systems, but also extreme over-clocking motherboards, dual CPU setups, Industrial servers and workstations.

LLC Resonant Topology

LLC resonant topology brings lower power losses and boosts higher efficiency during AC-DC voltage switching. This maintains the stability of the output while reducing the energy wasted, mainly as heat, thus reducing the overall temperature of the PSU.

Industrial Level Protection

BitFenix Whisper power supplies come with numerous protection mechanisms to protect both the power supply as well as components from poor power delivery.

- Over Current Protection (OCP),
- Over Voltage Protection (OVP),
- Under Voltage Protection (UVP),
- Over Power Protection (OPP)
- Short Circuit Protection (SCP),
- Over Temperature Protection (OTP)
- No Load Operation (NLO),
- Surge & Inrush Protection (SIP)

Ultra Long Warranty

BitFenix Whisper together with all the above premium features is covered by 7 years of warranty and BitFenix Online Support is available to answer any questions or concerns regarding all BitFenix Products.

Specification

BINFENIX® WHISPER

MODEL (型號	型号)	BWG850M							
AC INPUT (輸入	输入)	100-240VAC, 47-63Hz, 12.0A							
DC OUTPUT (輸出	输出)	+5V	+3.3V	+12V MBPH	+12V CPU	+12V VGA1	+12V VGA2	-12V	+5VSB
MAX LOAD (輸出電流	输出电流)	22A	22A	25A	25A	40A	40A	0.5A	2.5A
MAX OUTPUT POWER (輸出功率	输出功率)	120W		850W				6W	12.5W
TOTAL POWER (瓦數	瓦数)	850W							

- 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!

- WARNUNG! GEFAHRENZONE
  SICHERHEITSHINWEISE:
  VOR DEM ÖFFNEN DES GERÄTES NETZSTECKER ZIEHEN.
  KEINE SERVICERELEVANTEN BAUTEILE ENTHALTEN.
  SERVICEARBEITEN SOLLTEN NUR VON AUTORISIERTEM FACHPERSONAL DURCHGEFÜHRT WERDEN.

80 PLUS GOLD

CE CB FC R43016 RoHS

Switching Power Supply/ 電源供應器/ 电源供应器 MADE IN CHINA 中国制造

BINFENIX® WHISPER

MODEL (型號	型号)	BWG650M							
AC INPUT (輸入	输入)	100-240VAC, 47-63Hz, 10.0A							
DC OUTPUT (輸出	输出)	+5V	+3.3V	+12V MBPH	+12V CPU	+12V VGA1	+12V VGA2	-12V	+5VSB
MAX LOAD (輸出電流	输出电流)	20A	20A	25A	25A	30A	30A	0.3A	2.5A
MAX OUTPUT POWER (輸出功率	输出功率)	100W		650W				3.6W	12.5W
TOTAL POWER (瓦數	瓦数)	650W							

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80 PLUS GOLD

CE CB FC R43016 RoHS

Switching Power Supply/ 電源供應器/ 电源供应器 MADE IN CHINA 中国制造

BINFENIX® WHISPER

MODEL (型號	型号)	BWG750M							
AC INPUT (輸入	输入)	100-240VAC, 47-63Hz, 10.0A							
DC OUTPUT (輸出	输出)	+5V	+3.3V	+12V MBPH	+12V CPU	+12V VGA1	+12V VGA2	-12V	+5VSB
MAX LOAD (輸出電流	输出电流)	22A	22A	25A	25A	35A	35A	0.5A	2.5A
MAX OUTPUT POWER (輸出功率	输出功率)	120W		750W				6W	12.5W
TOTAL POWER (瓦數	瓦数)	750W							

- WARNING! HAZARDOUS AREA
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80 PLUS GOLD

CE CB FC R43016 RoHS

Switching Power Supply/ 電源供應器/ 电源供应器 MADE IN CHINA 中国制造

BINFENIX® WHISPER

MODEL (型號	型号)	BWG550M						
AC INPUT (輸入	输入)	100-240VAC, 47-63Hz, 8A						
DC OUTPUT (輸出	输出)	+5V	+3.3V	+12V MBPH	+12V CPU	+12V VGA	-12V	+5VSB
MAX LOAD (輸出電流	输出电流)	20A	20A	25A	25A	30A	0.3A	2.5A
MAX OUTPUT POWER (輸出功率	输出功率)	100W		550W			3.6W	12.5W
TOTAL POWER (瓦數	瓦数)	550W						

- WARNING! HAZARDOUS AREA
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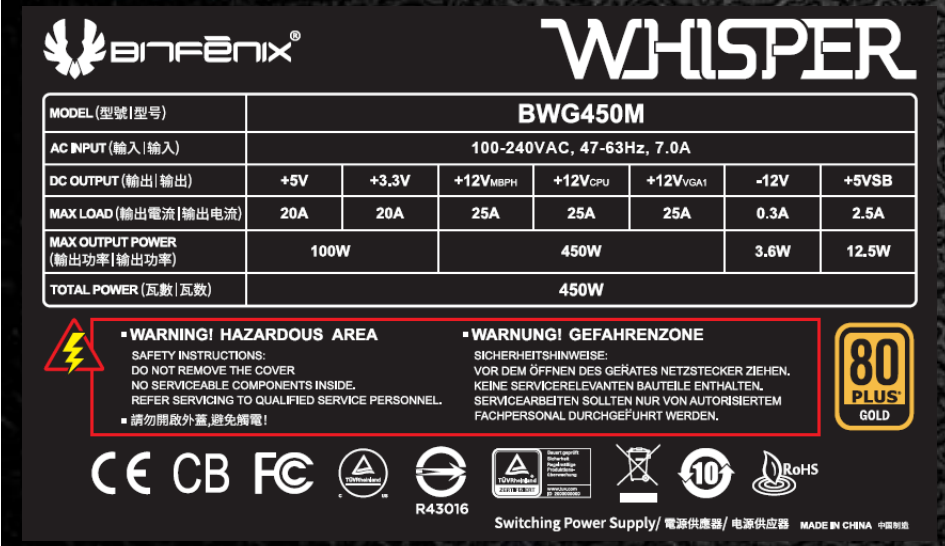
80 PLUS GOLD

CE CB FC R43016 RoHS

Switching Power Supply/ 電源供應器/ 电源供应器 MADE IN CHINA 中国制造

BINFENIX

Specification



BINFENIX®

WHISPER

MODEL (型號|型号)	BWG450M						
AC INPUT (輸入|输入)	100-240VAC, 47-63Hz, 7.0A						
DC OUTPUT (輸出|输出)	+5V	+3.3V	+12V$_{MBPH}$	+12V$_{CPU}$	+12V$_{VGA1}$	-12V	+5VSB
MAX LOAD (輸出電流|输出电流)	20A	20A	25A	25A	25A	0.3A	2.5A
MAX OUTPUT POWER (輸出功率|输出功率)	100W		450W			3.6W	12.5W
TOTAL POWER (瓦數|瓦数)	450W						

▪ WARNING! HAZARDOUS AREA

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80 PLUS GOLD

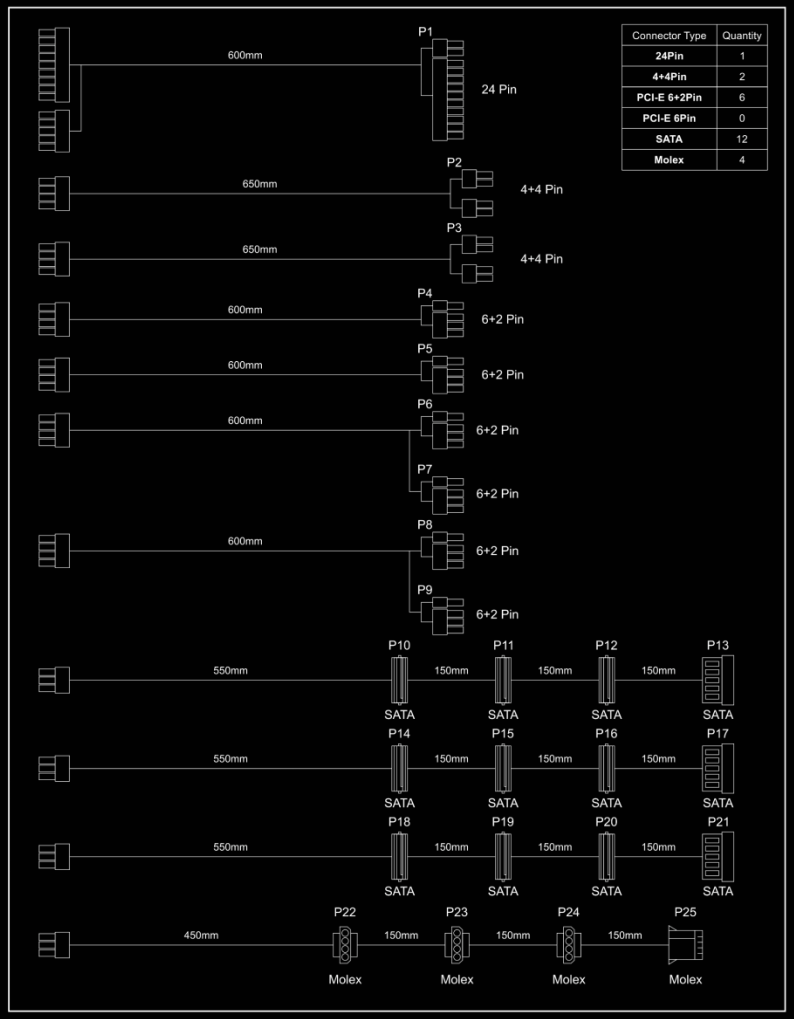
CE CB FC R43016 RoHS

Switching Power Supply/ 電源供應器/ 电源供应器 MADE IN CHINA 中国制造

BINFENIX

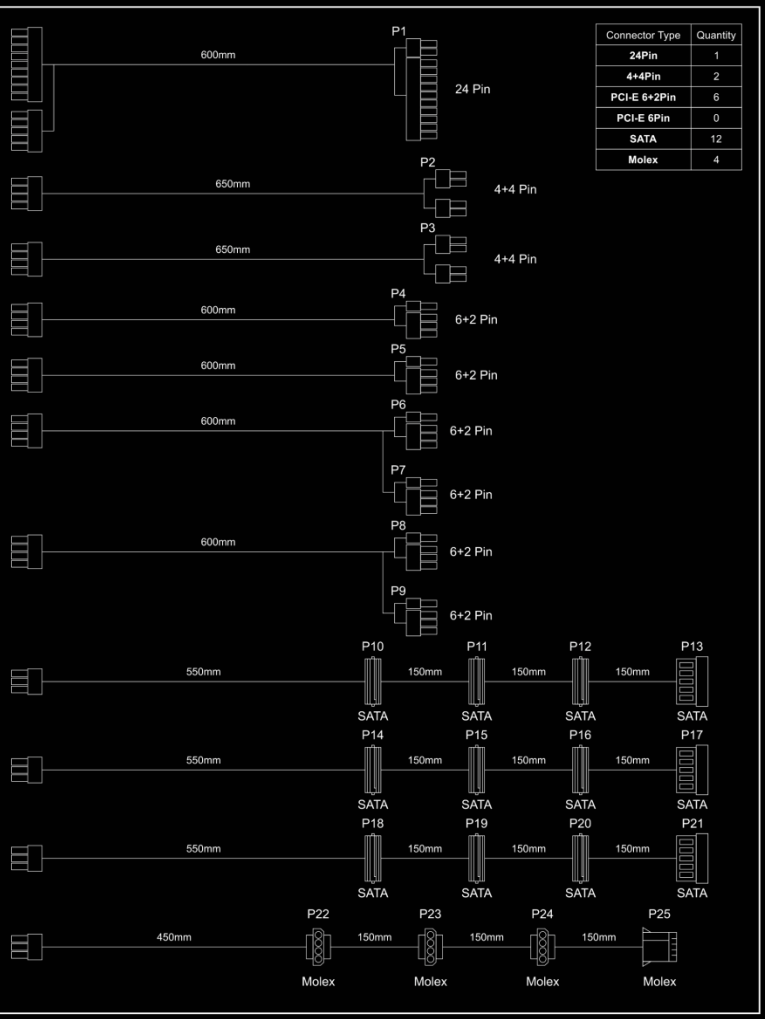
Cable Definition

850W



Connector Type	Quantity
24Pin	1
4+4Pin	2
PCI-E 6+2Pin	6
PCI-E 6Pin	0
SATA	12
Molex	4

750W

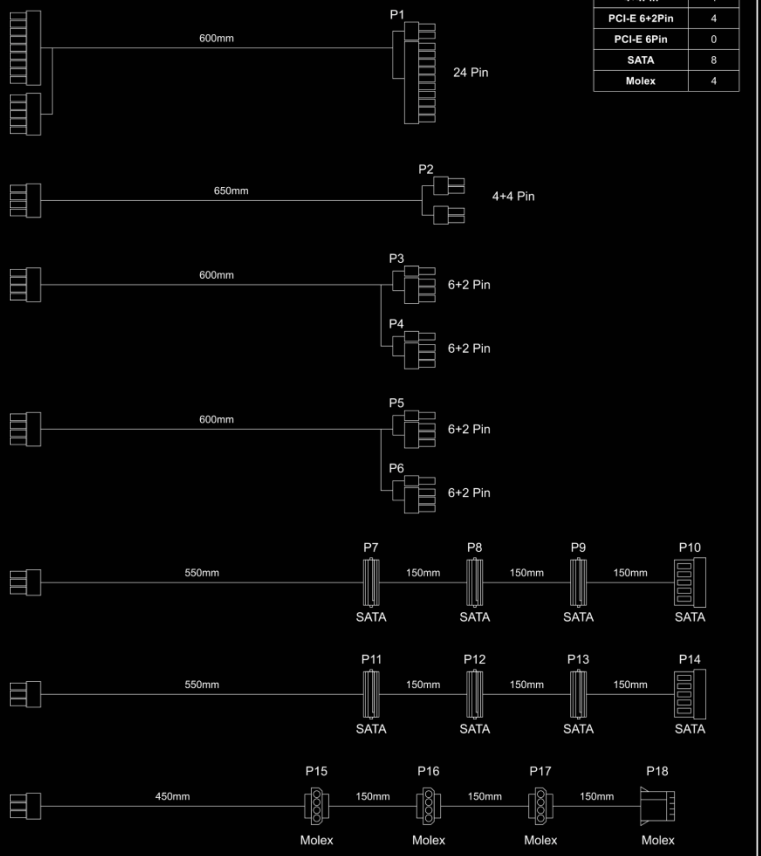


Connector Type	Quantity
24Pin	1
4+4Pin	2
PCI-E 6+2Pin	6
PCI-E 6Pin	0
SATA	12
Molex	4

Cable Definition

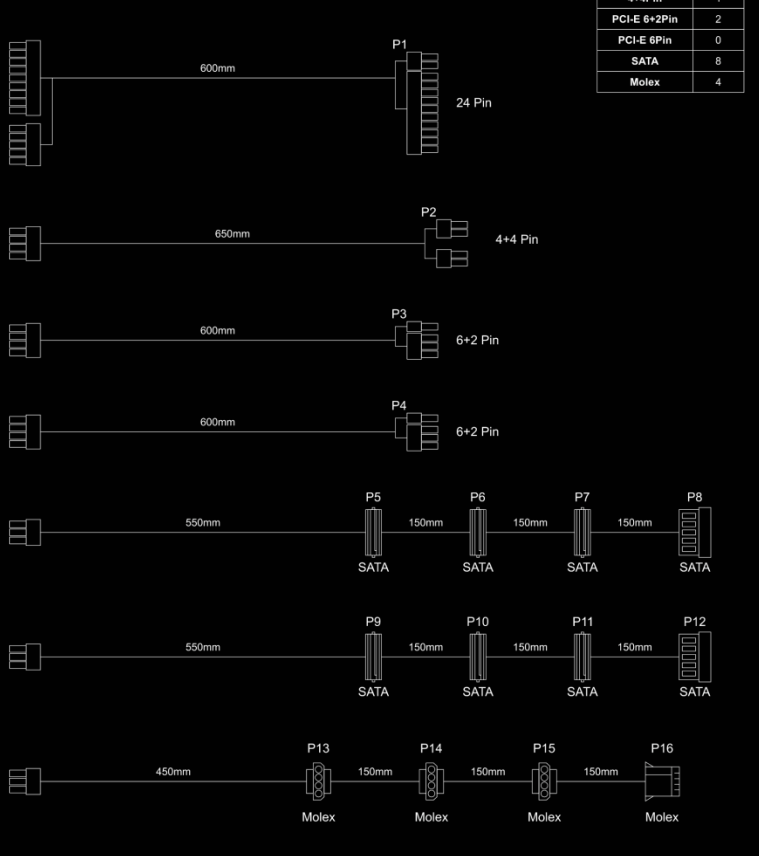
650W

Connector Type	Quantity
24Pin	1
4+4Pin	1
PCI-E 6+2Pin	4
PCI-E 6Pin	0
SATA	8
Molex	4



550W

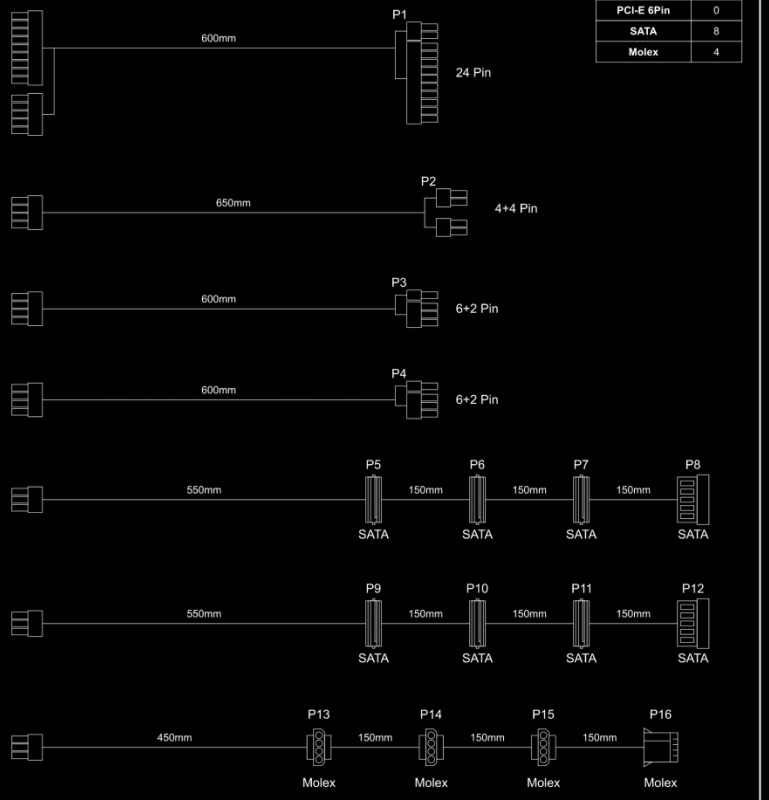
Connector Type	Quantity
24Pin	1
4+4Pin	1
PCI-E 6+2Pin	2
PCI-E 6Pin	0
SATA	8
Molex	4



Cable Definition

450W

Connector Type	Quantity
24Pin	1
4+4Pin	1
PCI-E 6+2Pin	2
PCI-E 6Pin	0
SATA	8
Molex	4



Specifications

Models	BWG450M	BWG550M	BWG650G	BWG750G	BWG850G
Intel Specification	ATX 12V V2.4	ATX 12V V2.4	ATX 12V V2.4	ATX 12V V2.4	ATX 12V V2.4
Dimension(DxWxH)	160mm(D) x 150mm(W) x 86mm(H)	160mm(D) x 150mm(W) x 86mm(H)	160mm(D) x 150mm(W) x 86mm(H)	160mm(D) x 150mm(W) x 86mm(H)	160mm(D) x 150mm(W) x 86mm(H)
AC Input	100-240Vac	100-240Vac	100-240Vac	100-240Vac	100-240Vac
Input Current	7A	8A	10A	10A	12A
Frequency	47-63Hz	47-63Hz	47-63Hz	47-63Hz	47-63Hz
APFC PF value	> 0.99	> 0.99	> 0.99	> 0.99	> 0.99
80Plus Certification	80Plus Gold, up to 92%	80Plus Gold, up to 92%	80Plus Gold, up to 92%	80Plus Gold, up to 92%	80Plus Gold, up to 92%
Operating Temp.	0-50°C	0-50°C	0-50°C	0-50°C	0-50°C
Fan Size	135mm	135mm	135mm	135mm	135mm
Protection	OPP/ OVP/ OCP/ UVP/ SCP/ NLO/ OTP/ SIP	OPP/ OVP/ OCP/ UVP/ SCP/ NLO/ OTP/ SIP	OPP/ OVP/ OCP/ UVP/ SCP/ NLO/ OTP/ SIP	OPP/ OVP/ OCP/ UVP/ SCP/ NLO/ OTP/ SIP	OPP/ OVP/ OCP/ UVP/ SCP/ NLO/ OTP/ SIP
Safety	cTUVus, TUV, CB, CE, FCC, BSMI	cTUVus, TUV, CB, CE, FCC, BSMI	cTUVus, TUV, CB, CE, FCC, BSMI	cTUVus, TUV, CB, CE, FCC, BSMI	cTUVus, TUV, CB, CE, FCC, BSMI
ErP regulation	ErP 2013 Lot 6	ErP 2013 Lot 6	ErP 2013 Lot 6	ErP 2013 Lot 6	ErP 2013 Lot 6
MTBF	> 100,000hrs	> 100,000hrs	> 100,000hrs	> 100,000hrs	> 100,000hrs
Output cable Type	Fully Modular	Fully Modular	Fully Modular	Fully Modular	Fully Modular
	Flat Cable	Flat Cable	Flat Cable	Flat Cable	Flat Cable
Connector Quantity	20+4Pin x 1	20+4Pin x 1	20+4Pin x 1	20+4Pin x 1	20+4Pin x 1
	4+4Pin CPU x 1	4+4Pin CPU x 1	4+4Pin CPU x 1	4+4Pin CPU x 2	4+4Pin CPU x 2
	6+2Pin VGA x 2	6+2Pin VGA x 2	6+2Pin VGA x 4	6+2Pin VGA x 6	6+2Pin VGA x 6
	SATA x 8	SATA x 8	SATA x 8	SATA x 12	SATA x 12
	Molex x 4	Molex x 4	Molex x 4	Molex x 4	Molex x 4