SILENCE PERFROMANCE

80 PLUS GOLD

BINFENIX

WHISPER Product Kit

BWG850M BWG750M BWG650M BWG550M BWG450M

Date:2019/2/25

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:2019/2/25

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

140mm 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)

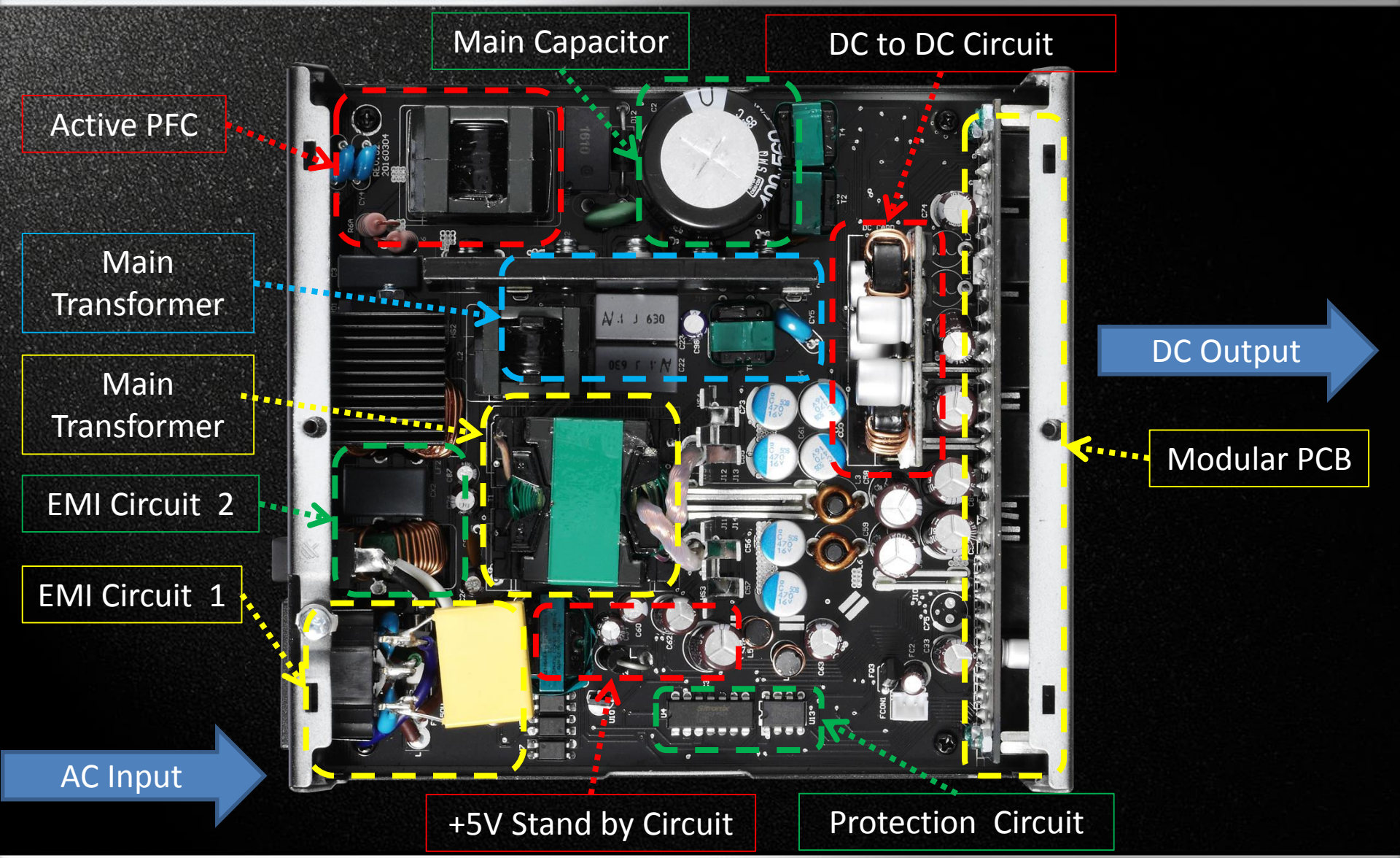
2 x 6+2pin PCI-E 2.0 connectors for multi-GPU Support (450W & 550W)
4 x 6+2pin PCI-E 2.0 connectors for multi-GPU Support (650W)
6 x 6+2pin PCI-E 2.0 connectors for multi-GPU Support (750W & 850W)

Complies with the latest European Environment Regulation

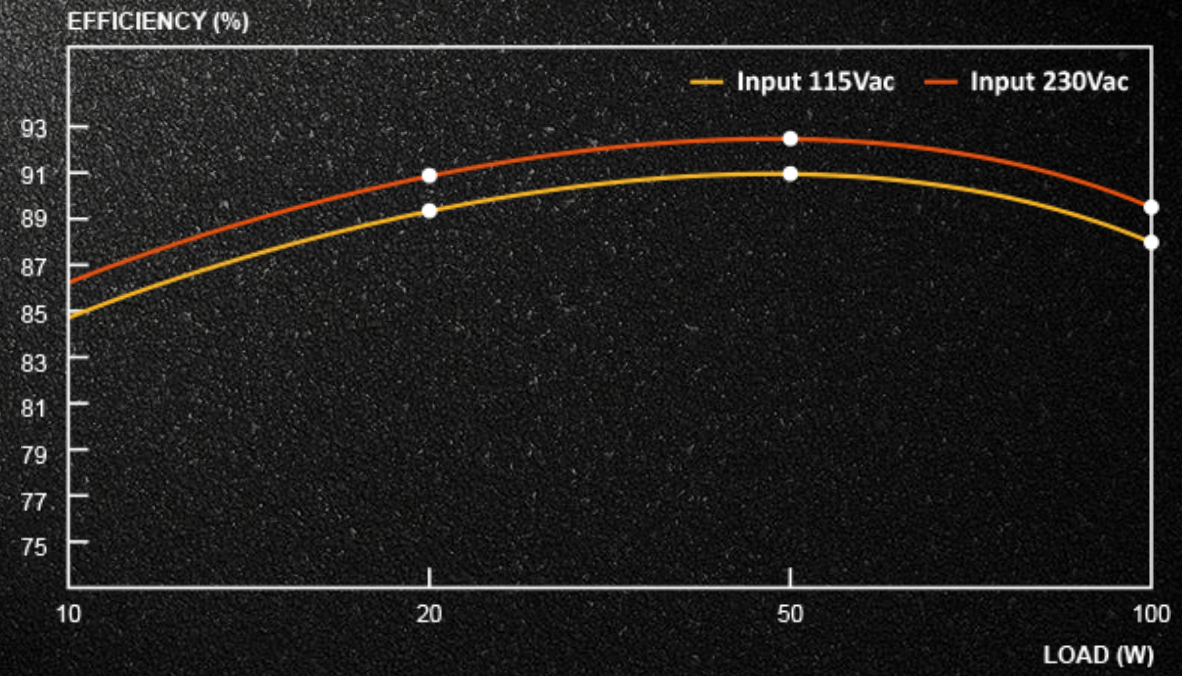
Features

BitFenix 24/7 customer service support and solid RMA service

Topology


Main Capacitor
DC to DC Circuit
Active PFC
Main Transformer
Main Transformer
EMI Circuit 2
EMI Circuit 1
DC Output
Modular PCB
AC Input
+5V Stand by Circuit
Protection Circuit

92%+ Efficiency at all time



HIGH EFFICIENCY

with 87+ (0% to 100% load)/ 90+ (40% to 70% load) high efficiency circuit, energy and money saving for end user, and generate less heat, more stable power output. Generate up to 80% less heat and consume 30% less power than standard PSU's.

100-240V (90V min to 264Vmax) Full range design for worldwide coverage, and with LLC & Active PFC & DC to DC Design circuit benefit planet Earth, for batter energy saving.

Efficiency

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			

Model		BWG750M										
AC Input Voltage & Temperature		115Vac @ 25°C										
Total Wattage		750W										
Combine Wattage		750W				120W		6W	12.5W			
Rail		+12V$_{MBPH}$	+12V$_{CPU}$	+12V$_{VGA1}$	+12V$_{VGA2}$	+3.3V	+5V	-12V	+5Vsb			
Max Current		25A	25A	35A	35A	22A	22A	0.5A	2.5A	DC Power In Total(W)	AC Power Reading(W)	Efficiency(%)
20% Loading	Current(A)	2.2	2.2	3.09	3.09	2.45	2.45	0.05	0.42	151.03	166.36	90.78
	Voltage(V)	12.177	12.198	12.198	12.182	3.325	5.050	11.903	5.082			
50% Loading	Current(A)	5.51	5.51	7.71	7.71	6.12	6.12	0.13	1.06	379.37	415.23	91.36
	Voltage(V)	12.155	12.195	12.200	12.175	3.310	5.035	12.148	5.065			
100% Loading	Current(A)	11.02	11.02	15.43	15.43	12.24	12.24	0.25	2.12	757.88	856.24	88.51
	Voltage(V)	12.123	12.193	12.193	12.172	3.280	5.005	12.780	5.035			

Efficiency

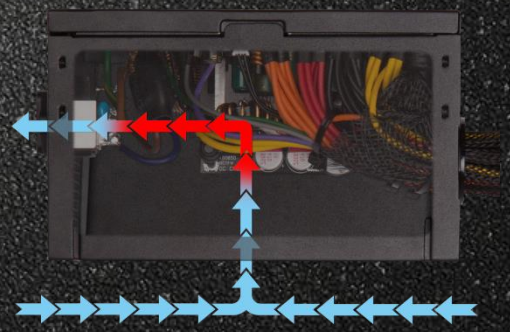
Model		BWG650M										
AC Input Voltage & Temperature		115Vac @ 25°C										
Total Wattage		650W										
Combine Wattage		650W				100W		3.6W	12.5W			
Rail		+12V$_{MBPH}$	+12V$_{CPU}$	+12V$_{VGA1}$	+12V$_{VGA2}$	+3.3V	+5V	-12V	+5Vsb			
Max Current		25A	25A	30A	30A	20A	20A	0.3A	2.5A	DC Power In Total(W)	AC Power Reading(W)	Efficiency(%)
20% Loading	Current(A)	2.09	2.09	2.51	2.51	2.04	2.04	0.05	0.42	131.11	145.19	90.30
	Voltage(V)	12.130	12.142	12.135	12.127	3.313	5.035	11.813	5.063			
50% Loading	Current(A)	5.22	5.22	6.27	6.27	5.11	5.11	0.13	1.06	326.97	359.29	91.00
	Voltage(V)	12.102	12.137	12.123	12.102	3.300	5.023	11.995	5.045			
100% Loading	Current(A)	10.44	10.44	12.53	12.53	10.22	10.22	0.25	2.12	652.76	740.76	88.12
	Voltage(V)	12.070	12.125	12.097	12.065	3.275	4.997	12.520	5.015			

Model		BWG550M									
AC Input Voltage & Temperature		115Vac @ 25°C									
Total Wattage		550W									
Combine Wattage		550W			100W		3.6W	12.5W			
Rail		+12V$_{MBPH}$	+12V$_{CPU}$	+12V$_{VGA}$	+3.3V	+5V	-12V	+5Vsb			
Max Current		25A	25A	30A	20A	20A	0.3A	2.5A	DC Power In Total(W)	AC Power Reading(W)	Efficiency(%)
20% Loading	Current(A)	1.72	1.72	4.12	1.99	1.99	0.05	0.41	109.77	121.82	90.11
	Voltage(V)	12.075	12.097	12.080	3.328	5.010	11.717	5.085			
50% Loading	Current(A)	4.3	4.3	10.32	4.97	4.97	0.12	1.03	275.04	301.91	91.10
	Voltage(V)	12.055	12.085	12.050	3.310	4.995	11.903	5.068			
100% Loading	Current(A)	8.6	8.6	20.64	9.95	9.95	0.25	2.06	550.61	621.72	88.56
	Voltage(V)	12.017	12.073	12.050	3.285	4.968	12.307	5.032			

Efficiency

Model		BWG450M									
AC Input Voltage & Temperature		115Vac @ 25°C									
Total Wattage		450W									
Combine Wattage		450W			100W		3.6W	12.5W			
Rail		+12V$_{MBPH}$	+12V$_{CPU}$	+12V$_{VGA}$	+3.3V	+5V	-12V	+5Vsb			
Max Current		25A	25A	25A	20A	20A	0.3A	2.5A	DC Power In Total(W)	AC Power Reading(W)	Efficiency(%)
20% Loading	Current(A)	1.49	1.49	2.98	1.92	1.92	0.05	0.4	90.15	100.77	89.46
	Voltage(V)	12.025	12.033	12.017	3.340	5.032	11.710	5.088			
50% Loading	Current(A)	3.73	3.73	7.46	4.79	4.79	0.12	0.99	224.44	247.08	90.84
	Voltage(V)	12.010	12.030	12.005	3.322	5.017	11.797	5.070			
100% Loading	Current(A)	7.45	7.45	14.9	9.58	9.58	0.24	1.99	448.71	508.26	88.28
	Voltage(V)	11.980	12.015	12.015	3.300	4.992	12.252	5.037			

PSU Thermal Solution

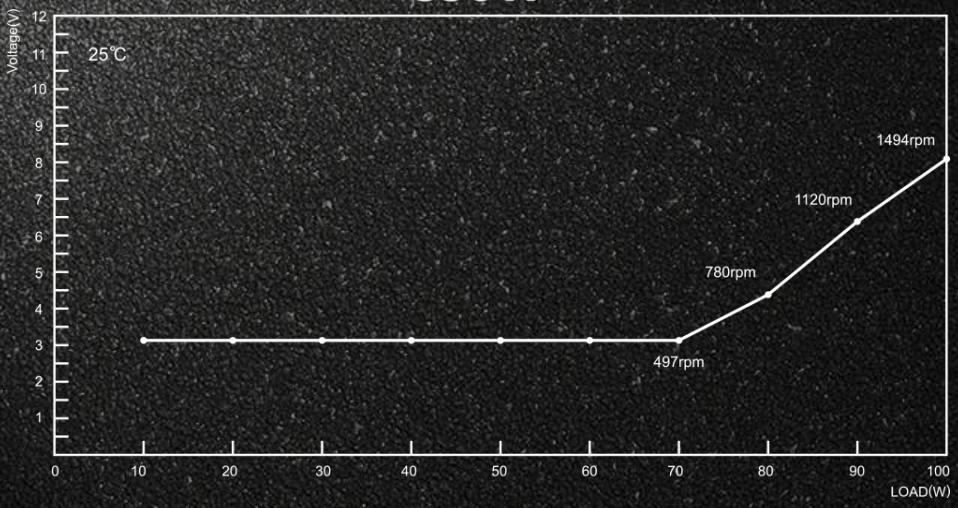


With the wind & Clean Design

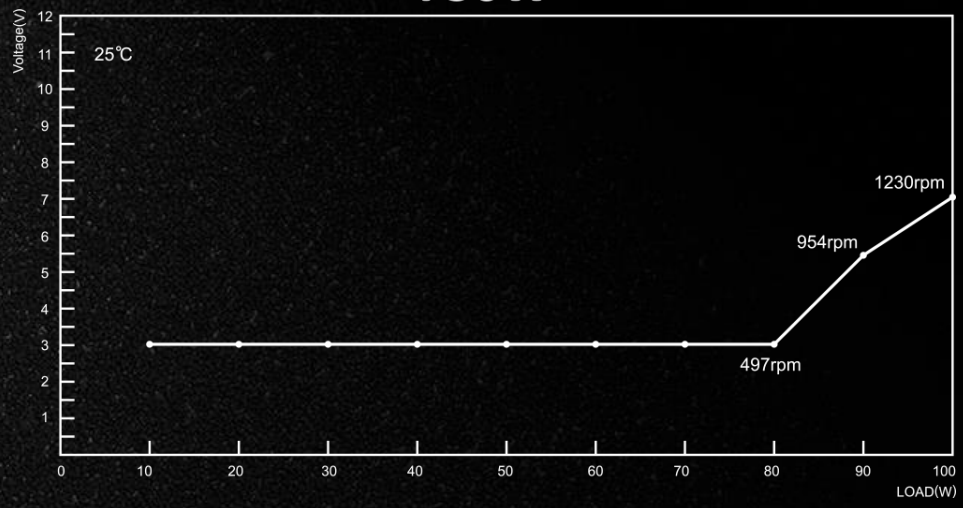
Intelligent Fan control circuit with 140mm Silent Fluid Dynamic Bearing Fan, Noise level lower than 18dBA while lower than 60% load at 25˚C.

PSU Low Acoustic Solution

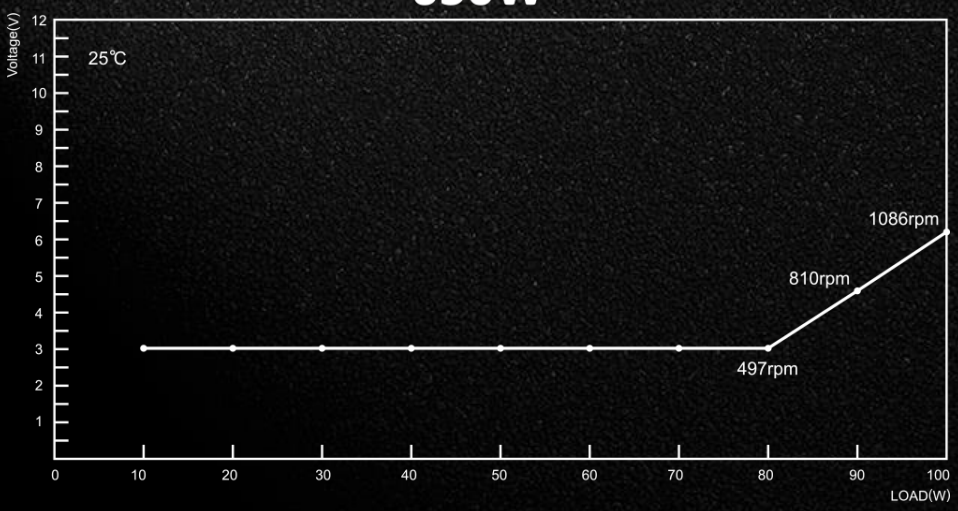
850W



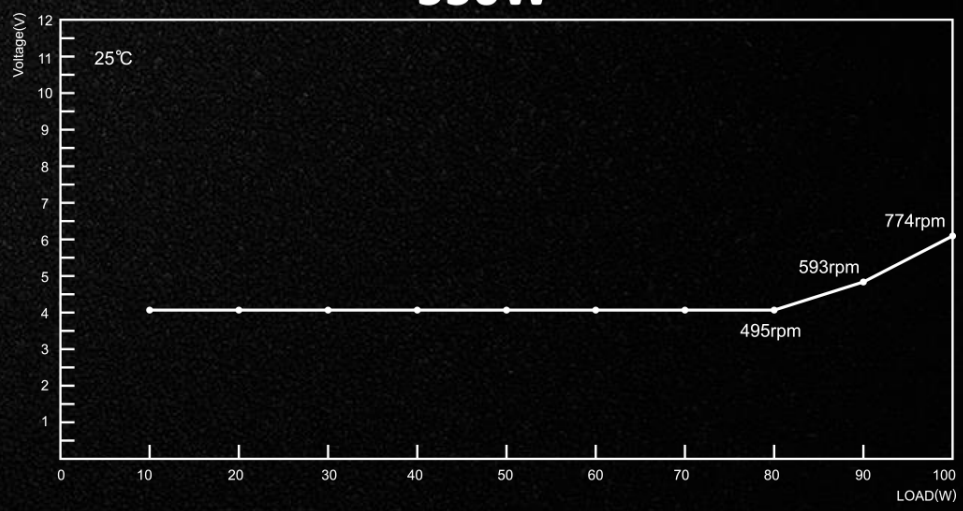
750W



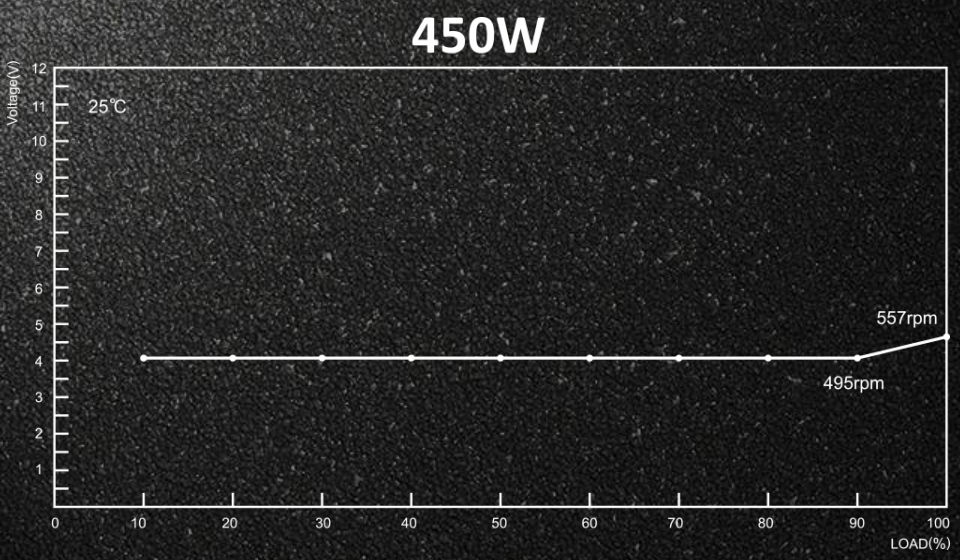
650W



550W

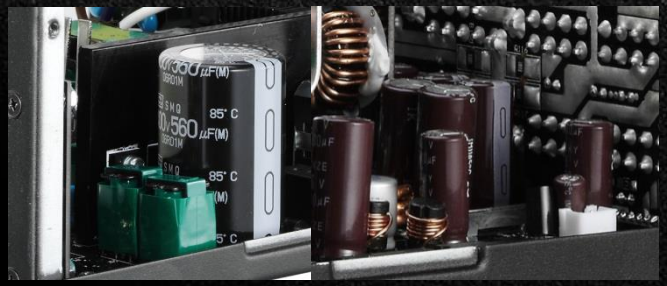


PSU Low Acoustic Solution



SLI & Selected Capacitor

Multi-GPU Ready



All Japanese Capacitor

Solid Capacitor

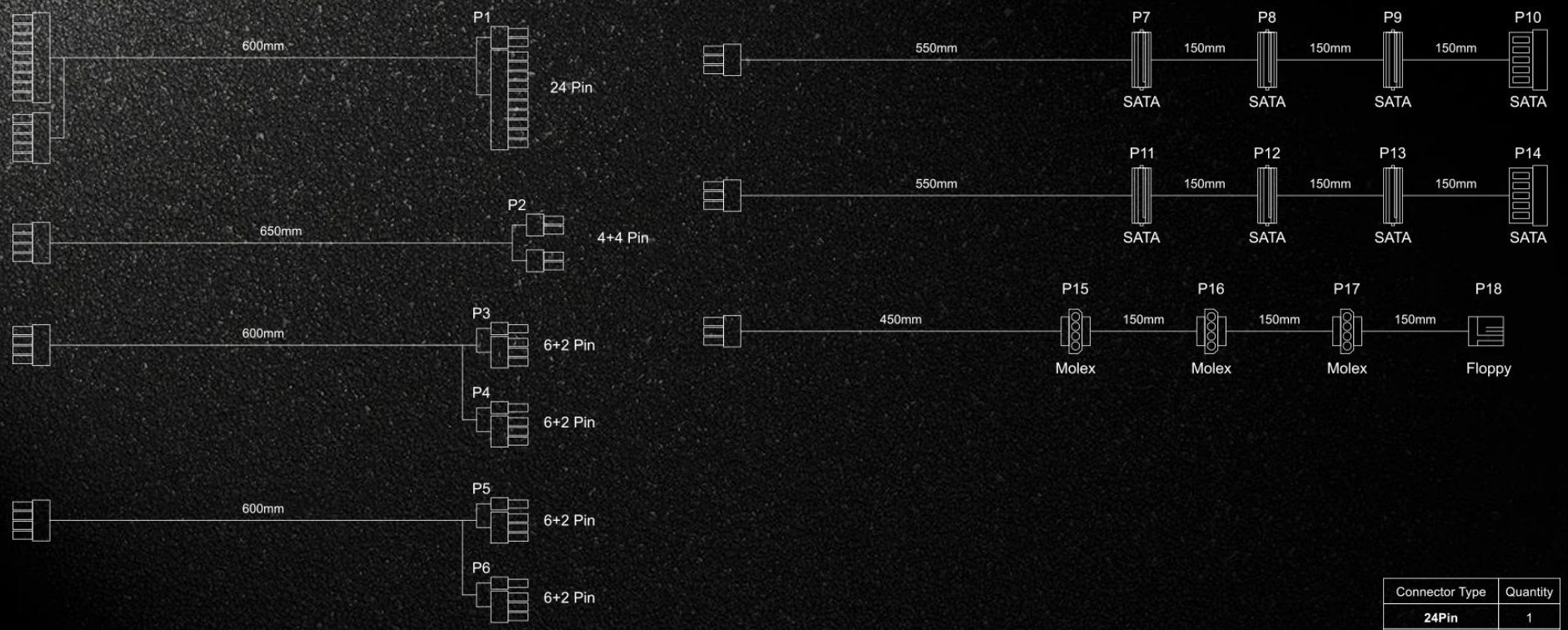
Ripple & Noise reduction design

Output Cable- 550W & 450W

Connector Type	Quantity
24Pin	1
4+4Pin	1
PCI-E 6+2Pin	2
PCI-E 6Pin	0
SATA	8
Molex	3
Floppy	1

Date:2019/2/25

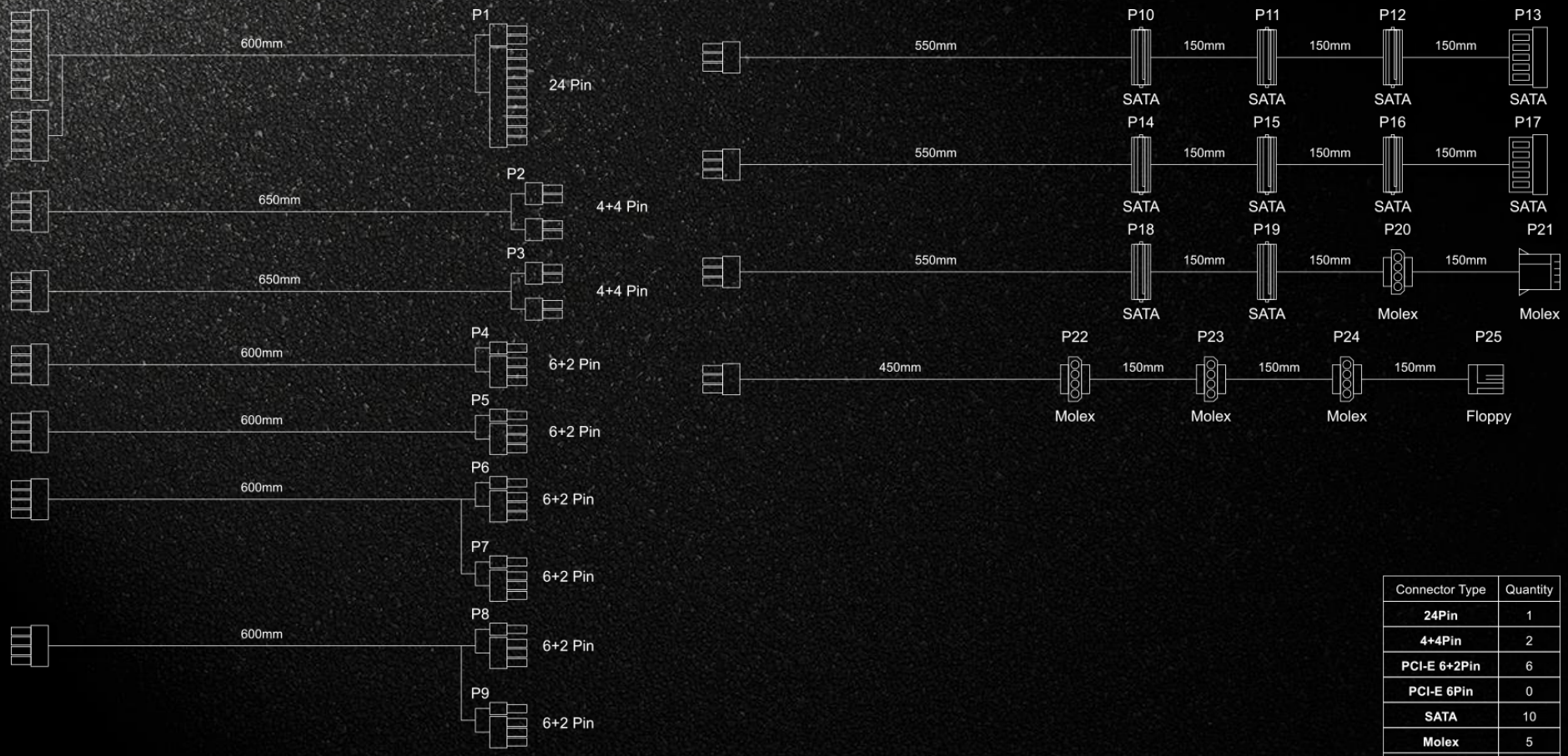
Output Cable- 650W



Connector Type	Quantity
24Pin	1
4+4Pin	1
PCI-E 6+2Pin	4
PCI-E 6Pin	0
SATA	8
Molex	3
Floppy	1

Date:2019/2/25

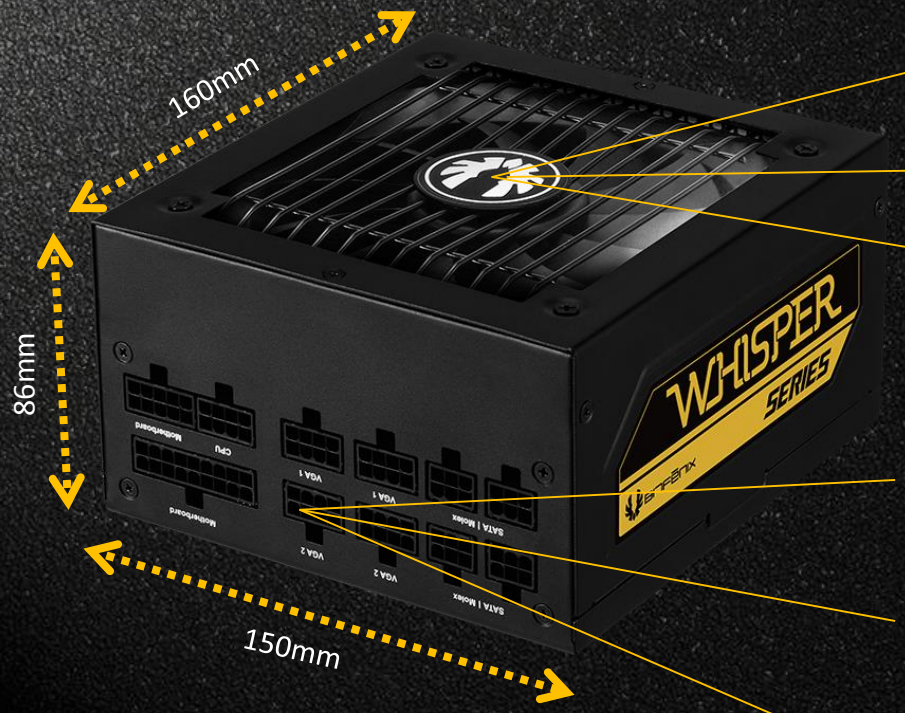
Output Cable- 850W & 750W



Connector Type	Quantity
24Pin	1
4+4Pin	2
PCI-E 6+2Pin	6
PCI-E 6Pin	0
SATA	10
Molex	5
Floppy	1

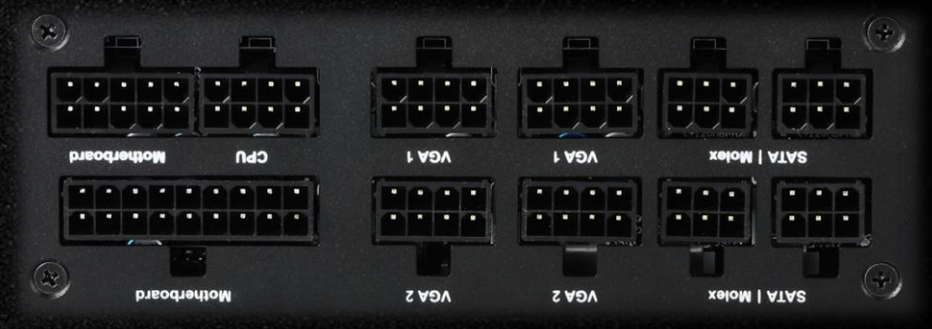
Date:2019/2/25

Housing



Compact Dimension

High Quality Aluminum BitFenix Logo



Modular design with +12V rails definition

Environment friendly,
Under RoHS &WEEE regulations

Spec Label

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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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							

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80 PLUS GOLD

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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						

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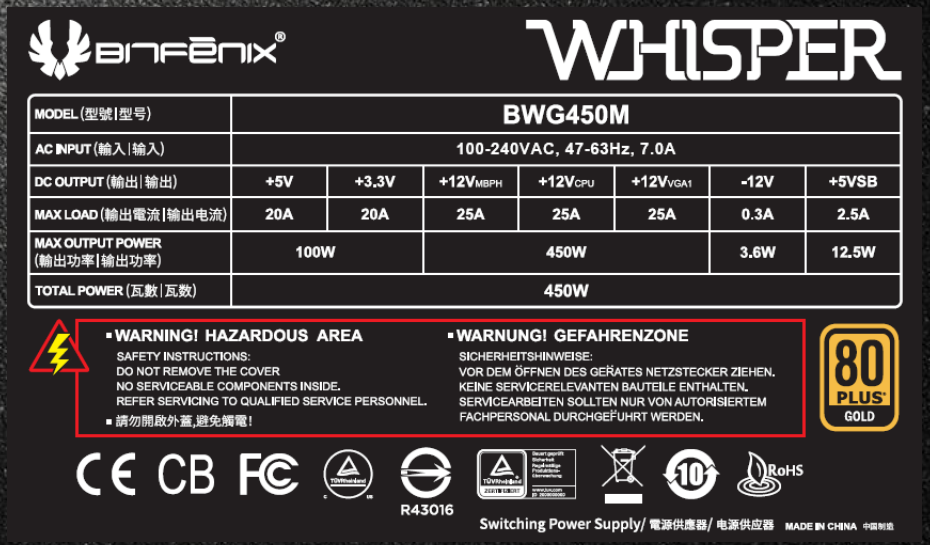

BINFENIX®

WHISPER

MODEL (型號\型号)	BWG450M						
AC INPUT (輸入\輸入)	100-240VAC, 47-63Hz, 7.0A						
DC OUTPUT (輸出\輸出)	+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\輸出功率)	100W		450W			3.6W	12.5W
TOTAL POWER (瓦數\瓦数)	450W						

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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

Date:2019/2/25

System Built

System Built

System Built

System Built

The End.