



SILVERSTONE

HELA Series

HELA 1000Rz / HELA 1200Rz Axis

**80 PLUS Platinum 1000W / 1200W ATX 3.1 & PCIe 5
Fully Modular ATX Power Supply**

- supports 12V-2x6 PCIe connector with ATX 3.1 and PCIe Gen 5 standard
 - High efficiency with 80 PLUS Platinum certification
- 100% modular cables with black embossed flat cable design
- 24/7 continuous power output with 40°C operating temperature
 - All Japanese electrolytic capacitors
- Silent running 135mm FDB fan with auto semi-fanless function
- Included 180° angled SATA connectors designed for stack mounted hard drives

SPECIFICATION

SilverStone HELA Series

HELA 1000Rz / HELA 1200Rz Axis

SST-HA1000R-PM / SST-HA1200R-PMA

ATX Switching Power Supply
Cybenetics Platinum efficiency certified.

1000W / 1200W

1.INPUT

1.1 VOLTAGE

MINIMUM	NOMINAL	MAXIMUM	UNITS
90	100-240	264	Vrms

1.2 FREQUENCY

47Hz ~ 63Hz

1.3 CURRENT

115Vac/14.0A max. 230Vac/7.0A max.

1.4 INRUSH CURRENT

150A max. when ac input 230Vac and 250C cold start.

1.5 POWER EFFICIENCY

Meet 80 Plus Platinum at 115Vac input

Loading	+12V	+5V	+3.3V	-12V	+5Vsb	Required minimum efficiency
20%	14.77A	2.35A	2.35A	0.05A	0.53A	90%
50%	36.92A	5.87A	5.87A	0.13A	1.33A	92%
100%	73.83A	11.75A	11.75A	0.27A	2.66A	89%

2% load efficiency>60%

1.6 LEAKAGE CURRENT

3.5mA max.

1.7 POWER FACTOR

PF > 0.95 at 50% load

1.8 ErP REQUIREMENT

Meet ASM and ErP Lot 3 2014

2.OUTPUT:

1000W

Voltage	+5V	+3.3V	+12V	-12V	+5Vsb
* 1 Max load	20.0A	20.0A	83.3A	0.3A	3.0A
Min load	0.0A	0.0A	0.0A	0.0A	0.0A
Peak load	--	--	--	--	--
* 1 Combined power	110W		--	--	--
* 3 Regulation	+3,-3%	+3,-3%	+3,-3%	+5,-5%	+3,-3%
* 2 Ripple & Noise	30mV	30mV	40mV	50mV	30mV

* 1 The continuous total output power is 1000W max.

• The combined power of +5V and +3.3V is 110W max.

• Peak currents may last up to 12 seconds with not more than one occurrence per minute.

* 2 Add 0.1uF and 10uF capacitors across output terminal during ripple & noise test.

* 3 LOAD REGULATION TEST TABLE:

	+5V	+12V	+3.3V	-12V	+5Vsb
LOAD1	0.0A	0.0A	0.0A	0.0A	0.0A
LOAD2	5.0A	0.0A	5.0A	0.1A	0.1A
LOAD3	10.0A	1.0A	10.0A	0.1A	0.5A
LOAD4	20.0A	4.0A	3.0A	0.2A	1.0A
LOAD5	8.8A	10.0A	20.0A	0.2A	3.0A
LOAD6	0.0A	83.3A	0.0A	0.0A	0.5A
LOAD7	11.75A	73.83A	11.75A	0.3A	0.0A

1200W

Voltage	+5V	+3.3V	+12V	-12V	+5Vsb
* 1 Max load	20.0A	20.0A	100A	0.3A	3.0A
Min load	0.0A	0.0A	0.0A	0.0A	0.0A
Peak load	--	--	--	--	--
* 1 Combined power	110W		--	--	--
* 3 Regulation	+3,-3%	+3,-3%	+3,-3%	+5,-5%	+3,-3%
* 2 Ripple & Noise	30mV	30mV	40mV	50mV	30mV

* 1 The continuous total output power is 1200W max.

• The combined power of +5V and +3.3V is 110W max.

• Peak currents may last up to 12 seconds with not more than one occurrence per minute.

* 2 Add 0.1uF and 10uF capacitors across output terminal during ripple & noise test.

* 3 LOAD REGULATION TEST TABLE:

	+5V	+12V	+3.3V	-12V	+5Vsb
LOAD1	0.0A	0.0A	0.0A	0.0A	0.0A
LOAD2	5.0A	0.0A	5.0A	0.1A	0.1A
LOAD3	10.0A	1.0A	10.0A	0.1A	0.5A
LOAD4	20.0A	4.0A	3.0A	0.2A	1.0A
LOAD5	8.8A	10.0A	20.0A	0.2A	3.0A
LOAD6	0.0A	100.0A	0.0A	0.0A	0.5A
LOAD7	11.97A	90.32A	11.97A	0.3A	0.0A

2.1 REMOTE ON/OFF

TTL High/PS-OFF; TTL Low/PS-ON

VIL=0.8Vmax, IIL=-1.6mAmax @Vin=0.4V

VIH=2.0Vmin @Iin=-200uA, VIH=5.25Vmax @open ckt.

2.2 HOLD-UP TIME

1.17msec (minimum) at 80% load 115Vac/230Vac input.

2.12msec (minimum) at 100% load 115Vac/230Vac input.

2.3 POWER GOOD DELAY

100-150 msec.

2.4 POWER FAIL DELAY

>1 msec.

2.5 TURN-ON DELAY TIME

2000 msec max. At nominal line full load.

2.6 TRANSIENT OVERSHOOT

DC output transient step sizes as below table:

Output voltage	+5V	+3.3V	+12V
Max. step size	30%	30%	60%

Load-changing repetition rate of 10m seconds.

Load slew rated 1.0A/uS and capacitive load as below :

+5V	+3.3V	+12V	-12V	+5Vsb
10000uF	10000uF	10000uF	470uF	3300uF

PCI-E CEM5 100% to 200% for power excursion

Power Excursion % of PSU	Time for Power Excursion (TE)	Time Constant (TC)	Duty Cycle
100%	Infinite	---	---
120%	100ms	300ms	25%
160%	10ms	70ms	12.5%
180%	1ms	11.5ms	8%
200%	100us	1900us	5%

+3.3V and +5V: 35% of full load

- Other loads remain constant within the rating.
- Load waveform

- Square wave.
- Slope of rise and fall at 5.0A/ μ S.
- Frequency from 50Hz to 10KHz.

- DC output voltage will stay within regulation of +5/- 8% during the step load changes(+12VCapacitive Load 6600uF)

2.7 RISE TIME

20ms max at full load.

3.PROTECTION:

When OVP ,OPP ,OCP,OTP or short protection is triggered, the main outputs will be latched off. The main outputs can be reset by cycling the DC remote on/off or AC power. +5Vsb output is auto recovery when fault condition removed.

3.1 OVER VOLTAGE PROTECTION

+3.3V output 4.5 Vmax.
 +5.0V output 7.0 Vmax.
 +12.0V output 15.6 Vmax.

3.2 SHORT PROTECTION

All output to GND.

3.3 OVER POWER PROTECTION

125%~160% full load

3.4 OVER CURRENT PROTECTION

+3.3V output : 24A-34A
 +5.0V output : 24A-34A.
 +12.0V output : 99.96A-116.62A

3.5 OVER TEMPERATURE PROTECTION

Protection temperature is 45°C to 55°C at 115V and full load

4.ENVIRONMENT:

4.1 OPERATING TEMP.	0°C to +40 °C
4.2 STORAGE TEMP.	-20 °C to +70 °C
4.3 OPERATING HUMIDITY	20% to 90%,non-condensing
4.4 STORAGE HUMIDITY	5% to 95%, non-condensing
4.5 OPERATING ALTITUDE	0 to 10,000 feet
4.6 STORAGE ALTITUDE	0 to 50,000 feet

5.HI-POT:

5.1 PRIMARY TO SECONDARY
1800Vac for 1 minute

6.SAFETY AND EMC REQUIREMENTS

- 6.1 CONDUCTED EMI
 - 1. MEET FCC:Class B
- 6.2 SAFETY STANDARDS
 - 1. MEET CE
 - 2. MEET TUV (EN60950/62368-1)
 - 3. MEET CB (IEC 950/62368-1)
- 6.3 HARMONIC
 - MEET IEC61000-3-2,Class D

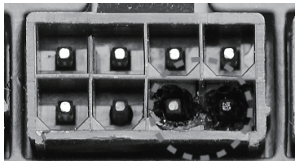
7.MTBF at 25°C(demonstrated)

100K hrs minimum

8.DIMENSIONS

150X86X140mm 135mm FAN x1 ON CASE TOP

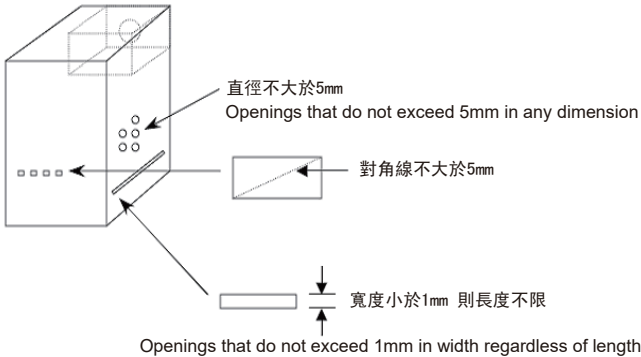
9. Power Supply Connector Overuse Definition



DLE	Definition einer Überlastung des Netzanschlusses	TH	ဓာတ်အားပေးကိရိယာအသုံးပြုမှုအားလျော်လွန်ခြင်း
FR	Définition de l'utilisation excessive du connecteur d'alimentation électrique	KR	전원 공급 커넥터 과용 정의
ES	Definición de uso excesivo del conector de la Fuente de alimentación	JP	電力供給コネクタの使用限度超過に関する説明
IT	Definizione di uso eccessivo del connettore di alimentazione	CN	电源供应器接头过度使用定义
RU	Определение чрезмерной нагрузки на коннектор блока питания	TW	電源供應器接頭過度使用定義



1. 為了保護使用者及防火的目的，安裝此交換式電源供應器時，必須安裝於符合下列各項要求的外殼中，並且安裝妥善後，才可接上電源。
- 1-1. 外殼材質須為防火外殼。外壳材质须为防火外壳。
- 1-2. 外殼的上方及側邊之圓形開孔，最大內徑不可大於5mm。
- 1-3. 外殼的上方及側邊之長條型開孔，對角線距離不可大於5mm；若寬度小於1mm，則長度不受限制。
- 1-4. 外殼底部不可有開孔。外壳底部不可有开孔。



2. 本產品輸出含有危險能量，為避免操作時發生危險，須於裝入系統機殼並將所有設備安裝妥當後才可開啟電源。
3. 本產品之電源輸出非屬電力限制型電源，請連接使用具防火外殼之周邊，以避免火災危險發生。

BSMI ROHS 資訊
<http://www.silverstonetek.com/downloads/PSU/RSD.pdf>

开关电源供应器 有毒有害物质/元素及其化学含量表						
部件名称	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
外壳	○	○	○	○	○	○
接头	○	○	○	○	○	○
风扇	○	○	○	○	○	○
电子卡	○	○	○	○	○	○
线材	○	○	○	○	○	○
螺丝	○	○	○	○	○	○
包材	○	○	○	○	○	○
本表格依据SJ/T 11364的规定编制 ○：表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572 规定的限量要求以下。 ×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572 规定的限量要求。						
 产品合格证 制造商: SST 生产日期: 2025.5.26						

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

SST-HA1000R-PM / SST-HA1200R-PMA

Model (safety certification):SST-AX1000MCPT-B
SST-AX1200MCPT-C

The equipment a Class | Switching Power Supply intended to use for information technology equipment or Audio and Video equipment.

※付属の電源コードは当該製品専用です。他の機器に使用しないでください。

Please refer to SilverStone website for latest specifications updates.

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