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S H E N Z H E N H O N O R E L E C T R O N I C C O . , L T D

ASPOWER

Electrical Specification

Model Name

R2A-MV0700

Version

S0

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Electrical Specification

(With ATX output (SGCC) 1+1 Redundant)

Drawn: 王宝玲

Design (EE): 朱炳山

Design (ME): 林志辉

Design (FE): NA

Approve: 李秀梅



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1.0 SCOPE

This specification defines the key characteristics for the +700W power supply (include double modules and one PDB), which is intended for worldwide use in IT equipment such as server application. This unit contains +12V, +5V, +3.3V, -12V and +5Vsb output ports. All the specifications are applicable under all operating conditions when installed in the end used system unless other noted.

2.0 INPUT PARAMETER

2.1 Input Voltage/Input Current/Frequency

The power supply shall operate within input limited voltage range as defined as Table 1, which includes the limited value of input current, input voltage, working frequency. The power supply shall be capable of start up from min load to max load at line input as low as 90VAC.

Table1.

	Min	Rated	Max	Units
AC input voltage	90	100~127	264	VAC
		200~240		VAC
Input current	<10A@100~240VAC @full load			

2.2 Inrush Current

Cold start at normal input voltage at 25°C, when input power is applied to the power supply and any initial inrush current surge or spike longer than 1ms shall not exceed 120A peak @230Vac. Inrush current difference between line and neutral is under 0.1A per half cycle of input current and/or the phase difference between line and neutral is less than +/-20 degrees during each AC input voltage half-cycle.

The inrush shall be less than the ratings of the critical components. Any inrush current of the AC line shall not cause damage to the power supply. Surge current does not contain the current spike due to X-Cap and Y-Cap.

2.3 Efficiency

The power supply achieves the 80 plus level by testing at the 230Vac/50Hz, 18degC-27degC ambient temperature and the loading condition show in Table 2. Efficiency testing delay time should be 30min after running the PSU, and so that the PSU in under steady state. This efficiency test refers



to 80Plus Test Protocol “Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies Revision 6.7”.

Table2.

Load	+3.3V	+5V	+12V	-12V	+5Vsb	EFF
20%	3.7A	3.7A	8.8 A	0.2A	0.5A	>82%
50%	9.2A	9.2A	22A	0.4A	1.2A	>85%
100%	18.4A	18.4A	44A	0.8A	2.3A	>82%

2.4 Hold up Time

Hold up time is defined length of time from AC input drops to 0V to +12V dropping out of voltage regulation range at any phase of the AC input, the power supply should meet dynamic voltage range.

1. Hold up time +12Vout>=16ms@80% load (90~264VAC)

2.5 AC Line Dropout

AC line dropout is the condition when AC input voltage drops to 0V at any phase of the AC line for any length of time. During an AC dropout of 16ms or less than the power supply's hold up time shall meet voltage regulation in the rated load and half load at all AC input voltages.

An AC line dropout of 9ms or less at 80% load shall not cause malfunction of control signals or protection circuit trip. If the AC dropout lasts longer than 16ms the power supply shall recover and meet all turn on requirements.

Any dropout of the AC line shall not cause damage to the power supply.

2.6 Power Factor

The power supply must meet the power factor requirements stated in the Energy Star Program Requirement for Computer Servers V2.0. The power factor shall meet the requirement as below table at 230Vac/50Hz and 115Vac/60Hz input voltage condition.

Table3.

Load	10% Load	20% Load	50% Load	100% Load
PF	>0.65	> 0.80	> 0.90	> 0.95

2.7 Surge and Sag

The dynamic conditions of AC line are defined as sag and surge. Sag is mainly drop to below normal voltage, surge refers to the input voltage rising above the normal range, the PSU shall meet the requirements under the following AC line sag and surge conditions.

**Table4. Surge and Sag Test Condition**

Duration	Surge/Sag	Input Voltage	Frequency	Performance Criteria
500ms	10%	220/110VAC	50/60Hz	No loss of function or performance
0 to 1/2 AC cycle	30%	220/110VAC	50/60Hz	No loss of function or performance
=1/2 AC cycle	30%	220/110VAC	50/60Hz	No loss of function or performance
>1/2 AC cycle	>30%	220/110VAC	50/60Hz	Loss of function acceptable, power supply can turn on automatically

3.0 OUTPUT PARAMETER

3.1 Output Current

The following table defines the output current ratings. The combined output power of all outputs shall not exceed the rated output power (700W). The power supply shall meet both static, dynamic voltage regulation and timing requirements for all loading conditions defined in specification.

Table5.

Output Voltage	Min Current	Max current
+3.3V	0.3A	30A
+5V	0.3A	30A
+12V	0.3A	58A
-12V	0A	1A
+5Vsb	0A	3A

Note:

1. The continuous total output power is 700W max.
2. The combined power of +5V and +3.3V is 200W max.

3.2 Voltage Regulation

The power supply output voltages must stay within the following voltage limits shown in below table when operating at steady state, dynamic loading conditions. All outputs are measured with reference to the return remote sense (ReturnS) signal.

**Table6.**

Output Voltage	Min	Rated	Max	Tolerance
+3.3V	+3.135V	+3.3V	+3.465V	+/-5%
+5V	+4.75V	+5.0V	+5.25V	+/-5%
+12V	+11.4V	+12.0V	+12.6V	+/-5%
-12V	-10.8V	-12.0V	-13.2V	+/-10%
+5Vsb	+4.75V	+5.0V	+5.25V	+/-5%

Table7. Load Regulation Test Table

	+3.3V	+5V	+12V	-12V	+5Vsb
Load1	0.3A	0.3A	0.3A	0.0A	0.0A
Load2	3.7A	3.7A	8.8A	0.2A	0.5A
Load3	9.2A	9.2A	22A	0.4A	1.1A
Load4	18.4A	18.4A	44A	0.8A	2.2A
Load5	30.0A	20.0A	39.5A	1.0A	3.0A
Load6	15.0A	30.0A	39.5A	1.0A	3.0A
Load7	1.0A	1.0A	55.0A	1.0A	3.0A

3.3 Ripple & Noise

Table8.

Output voltage	Ripple & noise
+3.3V	<50mV
+5V	<50mV
+12V	<120mV
-12V	<120mV
+5Vsb	<50mV

Note:

1. The ripple & noise is measured over a bandwidth of 20MHz at the power supply output connectors. A 10μF Electrolytic capacitor in parallel with a 0.1μF ceramic capacitor is placed at the point of measurement.

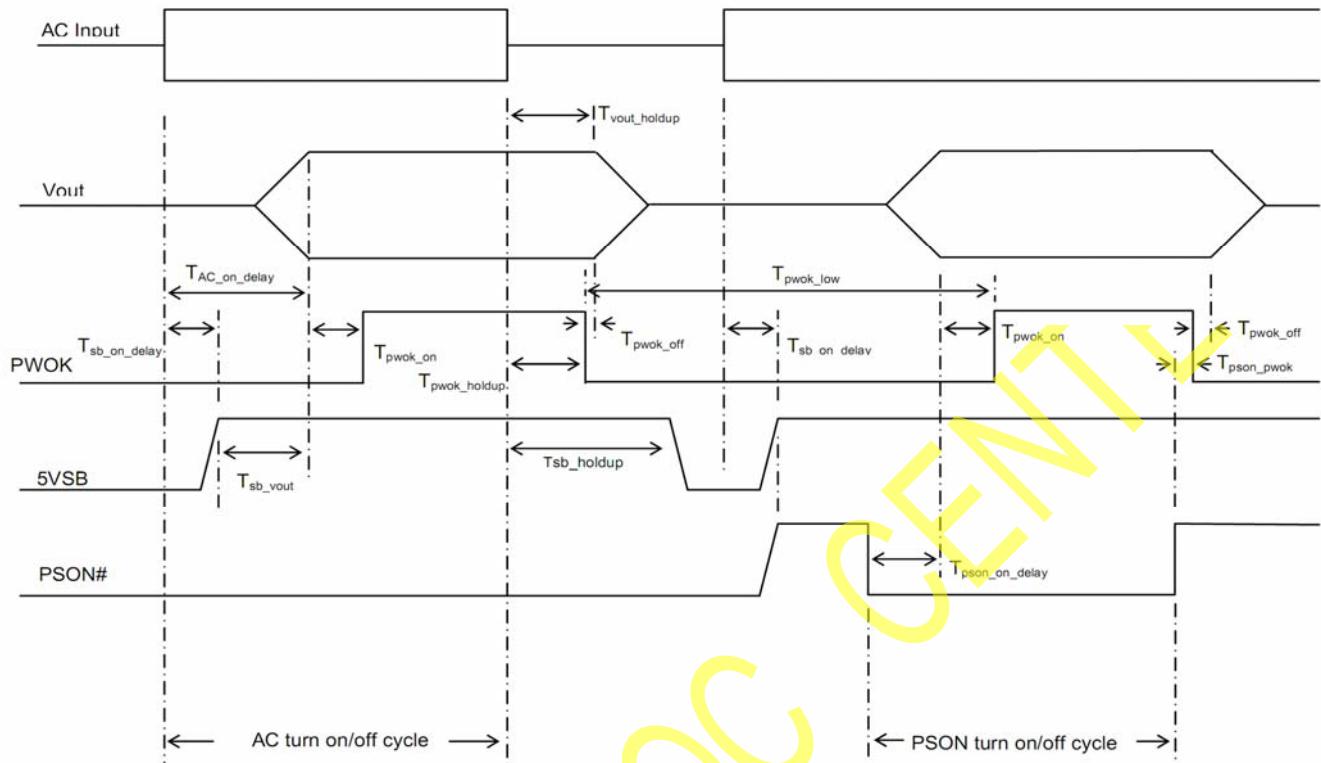


3.4 Timing

These timing requirements for power supply operation include alone module's output and multi modules' outputs. All outputs shall rise and fall monotonically. In addition, PSU timing must meet the requirement of mother board. The timing characteristics must be evaluated and verified when in design stage and system test stage.

Table9.

Item	Description	Min	Max	Units
Tvout_rise	Output voltage rise from 10% to 90% time.		25	ms
Tsb_on_delay	Delay from AC being applied to 5Vsb being within regulation.		2000	ms
Tac_on_delay	Delay from AC being applied to 12V being within regulation.		2000	ms
Tsb_vout	Delay from 5Vsb being in regulation to 12V being in regulation at AC turn on.	50	1000	ms
Tpson_on_delay	Delay from PSON active to output voltages being within regulation limits.	5	500	ms
Tpwok_on	Delay from output voltages within regulation limits to PWOK asserted at turn on.	100	500	ms
Tvout_holdup	All output stay within regulation after loss of AC.	16		ms
Tpwok_holdup	Delay from loss of AC to de-assertion of PWOK.	14		ms
Tpwok_off	Delay from PWOK de-asserted to output voltages dropping out of regulation limits.	1		ms



Note:

1. Rise Time (T_{vout_rise}): The output must rise from 10% to 90% within regulation limits should < 25ms.
All outputs must rise monotonically.
2. Tsb-on & Tac-on Delay Time: The Tsb-on delay time for 5Vsb should be $\leq 2s$ at 115Vac/230Vac when full load.
The Tac-on delay time for 12V should be $\leq 2s$ at 115Vac/230Vac when full load.
3. Main Output Delay Time (T_{sb_vout}): The main output being in regulation delay from 5Vsb being in regulation should be 50 to 1000ms when at AC turn on.
4. $T_{pson_on_delay}$: The output must be within regulation after PSON active for 5 to 500ms.
5. Power Work OK Delay (T_{pwok_on}): PWOK should delay from all output within regulation for 100 to 500ms.
6. Hold up Time (T_{vout_holdup}): The hold up time for all output should $> 16ms$, at 115Vac/230Vac input when 80% full load.
The hold up time for PWOK should $> 14ms$, at 115Vac/230Vac input when 80% full load.
7. Power Fail Delay Time (T_{pwok_off}): All output dropping out of regulation delay from PG should $\geq 1ms$ when power off at full load.



3.5 Overshoot

Output voltage overshoot is less than 10% with 30% load step and any input voltage, the output rising up waveform should be kept flat and smoothly.

Table10.

Output Voltage	Overshoot (Max)
+3.3V	3.63V
+5V	5.5V
+12V	13.2V

3.6 Dynamic

The output voltage shall remain within 10% specified for the step loading, slew rate, and capacitive loading in below table.

The load transient repetition rate shall be tested between 50Hz to 5KHz at 50% duty cycles. The test shall be at least in 50 Hz/1KHz/5KHz condition. The output current transient repetition rate is only a test specification.

Table11.

Output Voltage	Transient Step (A) Percent of Rated Current	Slew rate (A/us)	Frequency (Hz)	Cap (uF)
+3.3V	30%	0.5	50-5K	10000
+5V	30%	0.5	50-5K	10000
+12V	30%	0.5	50-5K	10000
-12V	30%	0.5	50-5K	330
+5Vsb	25%	0.5	50-5K	1000

3.7 Capacitive Loading

The power supply shall be stable and meet all requirements with the following capacitive loading range. The PSU is not damaged include normal turn on timing, running under all loading conditions.

Table12.

Output Voltage	+3.3V	+5V	+12V	-12V	+5Vsb
Capacitive loading (uF)	10000	10000	10000	330	10000



3.8 Current Sharing and Hot Plug

As this power supply has redundant function, the output current sharing should be within $\pm 10\%$ when half, full load and within $\pm 20\%$ at light load. The supplies must be able to load share in parallel and operate in a hot-swap/redundant configuration.

Table13. Load Regulation Test Table

	+3.3V	+5V	+12V	-12V	+5Vs _b	Spec
Load1	0.3A	0.3A	0.3A	0.0A	0.0A	REF
Load2	0.0A	0.0A	11.6A	0.0A	0.0A	$\pm 20\%$
Load3	0.0A	0.0A	29.0A	0.0A	0.0A	$\pm 10\%$
Load4	0.0A	0.0A	58.0A	0.0A	0.0A	$\pm 10\%$
Load5	6.0A	0.0A	0.0A	0.0A	0.0A	$\pm 20\%$
Load6	15.0A	0.0A	0.0A	0.0A	0.0A	$\pm 10\%$
Load7	30.0A	0.0A	0.0A	0.0A	0.0A	$\pm 10\%$
Load8	0.0A	6.0A	0.0A	0.0A	0.0A	$\pm 20\%$
Load9	0.0A	15.0A	0.0A	0.0A	0.0A	$\pm 10\%$
Load10	0.0A	30.0A	0.0A	0.0A	0.0A	$\pm 10\%$
Load11	18.4A	18.4A	44.0A	0.0A	0.0A	$\pm 10\%$

3.9 PWOK Signal

PWOK is a power OK signal and it will be pulled high, when the power supply indicates all outputs are within the regulation. When +12V, +5V, +3.3V, or -12V output have a fault, the PWOK will be de-asserted to a low state.

4.0 PROTECTION

To operate safely and reliably, inside circuit in the power supply should have necessary protection function for various abnormal situations, include OCP, OVP, OTP, OPP and short. The main output shall shut down and latch off under protection mode. The main outputs can be reset by cycling the remote on/off or input interrupt restart. +5Vs_b output is auto recovery when fault condition removed.



4.1 Over Voltage Protection (OVP)

The OVP range is shown in below table.

Table14.

Voltage	Min(V)	Max(V)
+3.3V	3.7	4.5
+5V	5.7	7.0
+12V	13.2	15.6

4.2 Over Power Protection (OPP)

110%~160% of full load

4.3 Over Temperature Protection (OTP)

The power supply will be protected against over temperature conditions caused by loss of fan cooling or excessive ambient temperature. In an OTP condition the PSU will shut down and latch-off. The ambient OTP is 58+/-7°C.

4.4 Short Circuit Protection (SCP)

The power supply shall shut down and output is under skip mode, when main output is under shorten mode (impedance less than 0.1ohm). The power supply should be under protection mode to keep component safe, whatever the output is shorten before turn on or shorten after turn on. The main output voltage shall shut down and latch off, and power supply must be able to turn on by cycling the remote on/off or input interrupt restart.

4.5 Over Current Protection (OCP)

Table15. OCP Limited Table

Output	Min	Max
+3.3V	35A	45A
+5V	35A	45A
+12V	62A	72A



4.6 Warning Type

Table16.

Status		Module LED	Backplane LED	Buzzle	TTL Level
Normal		green	green	quiet	high
Fault	Only +5Vsb	yellow	flash	alarm	low
	No +5Vsb	off	flash	alarm	low
Reset		Yellow/off	flash	quiet	low

Note:

1. Audio alarm is buzzer sounds and it can be eliminated by the reset button.
2. Unplug the abnormal modules and all signals will be back to normal.

4.7 No Load Operating

No damage or hazardous condition should occur with all the DC output connectors disconnected from the load. The power supply may latch into the shutdown state.

5.0 OPERATE ENVIRONMENT

5.1 Operate Temperature

Operate temperature: 0°C to +50°C.

5.2 Storage Temperature

Storage temperature: -20°C to +70°C.

5.3 Operate Humidity

Operate Humidity (non-condensing): 10% to 90%.

5.4 Storage Humidity

Storage Humidity (non-condensing): 5% to 95%.

5.5 Operate Altitude

Operate Altitude: 0 to 5000m.

5.6 Storage Altitude

Storage Altitude: 0 to 10000m.



6.0 SAFETY

6.1 Safety Certification

FCC

CCC

CE

6.2 Hi-pot

Primary to secondary, HI-POT Withstand voltage: 3000Vac, 60s, leakage current <10mA; 4242Vdc, 60s, leakage current <0.5mA.

Primary to GND, HI-POT Withstand voltage: 1500Vac, 60s, leakage current <10mA; 2121Vdc, 60s, leakage current <0.5mA.

6.3 Grounding Impedance Test

Grounding impedance test using grounding current 32A for 60s and the impedance is less than 100mohm.

6.4 Leakage Current

In order to ensure that the leakage current of the power supply case not cause leakage damage to the human body, after inserting the AC power, the leakage current of the power supply should meet the requirements of safety. Under 264Vac/60Hz conditions to be less than 3.5mA test with customer system.

6.5 Insulation Resistance

Primary to Secondary: 500Vdc for 60S, the isolation resistance shall not be less than 100Mohm.

6.6 Smokeless

Parts failure in the power supply shall not have smoke and flame. And it is necessary to put a fuse in the front of DC-DC conversion circuit or equivalent circuit to prevent smoke and diffusion. Parts failure will trigger the fuse open. All power components are not limited in safety components, but it should be required to verify in the smoke-less testing.

6.7 Warning

1. The PSU must have insulation protection.
2. To avoid electric shock and injury, the PSU must not be energized before finishing installation.
3. This PSU only allows professional maintenance.

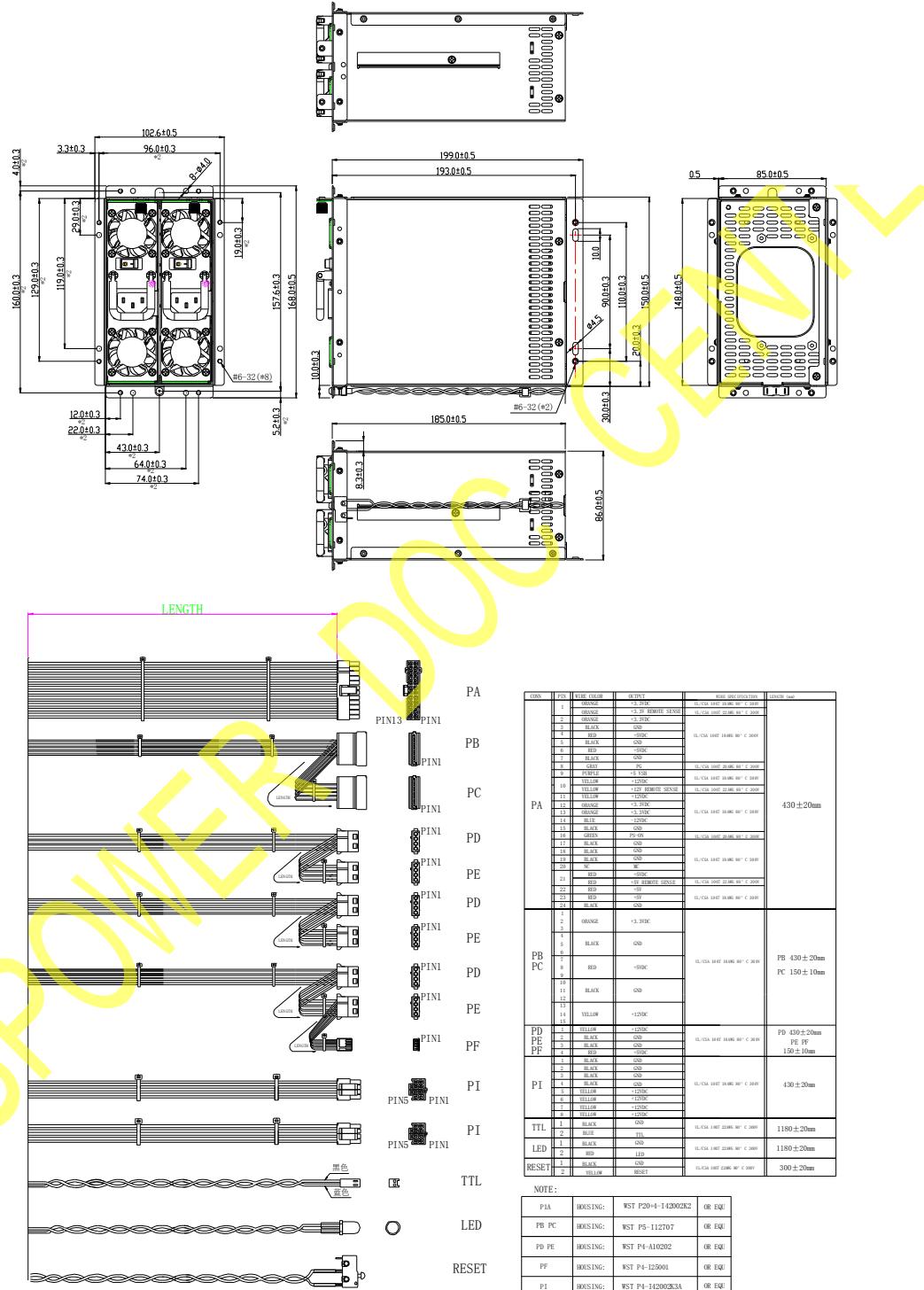


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7.0 OUTLINE STRUCTURE

Outline dimension: 185mm (L)*150mm (W)* 86mm (T)





8.0 ROHS

Power supply must meet be Rohs6 compliant including the component, PCB, soldering material, case, wire, and so on.

9.0 EMC

Table17. EMI (Electromagnetic Interference) Requirements Table

Item	Frequency Segment	Performance criterion	Reference Standard	Note
Conduction interference	150KHz~30MHz	A	EN 55022	115V/60Hz, 230Vac/50Hz
Radiation interference	30MHz~1GHz	A	EN 55022	115V/60Hz, 230Vac/50Hz

Table18.EMS (Electromagnetic Susceptibility) Requirements Table

Item	Description and Requirement	Performance criterion	Criterion
EFT	$\pm 1KV$	B	IEC61000-4-4
surge	Common: $\pm 2KV$ 12ohm Different: $\pm 1KV$ 2ohm	B	IEC61000-4-5
ESD	Touch: $\pm 4KV$ Air: $\pm 8KV$	B	IEC61000-4-2 ESD

10.0 PART CONTROL REQUIREMENTS

1. All current limiting devices shall have UL, TUV or VDE certification and shall be identified as applications in which the device complies with IEC60950.
2. All printed circuit board ratings shall meet UL94V - 0 and those from UL certified PCB manufacturers.
3. All joints shall pass UL certification and UL flame retardant rating UL94V-0.
4. All wiring harness shall be from UL certified wiring harness manufacturer. SELV (Safety Extra Low Voltage) cable is rated at minimum 80V, 130degC.
5. Product safety labels must be printed with UL certified labels and ribbons. In addition labels can be purchased from UL label manufacturers for approval.



6. The product must have the correct regulatory marks to support the certification specified in this document.

11.0 MECHANICAL PERFORMANCE

Mechanical vibration experiment is mainly to simulate the product vibration experiment in the work and transport process, the purpose is to test whether the product can meet certain specifications of vibration intensity, the main test items include:

1. Work random vibration.
2. Work shock.
3. Packaging random vibration.

Table19.

NO	Experiment Item	Sample	Standard	Parameter	Criterion
1	work random vibration	≥ 3	IPC9592A-2010 IEC60068-2-64	ASD: 20~1000Hz: 0.04g ² /Hz; 1000~2000Hz: 6db/oct; 2000Hz: 0.01g ² /Hz. About 8Grms. 3 axial, each axial at least 10min. Test process sample power on, normal input voltage, no load. During the test, each power output and signal output should be monitored continuously. The monitoring period should be less than 1ms.	Power supply voltage is Within the specification limits during the test.



2	work shock	≥ 3	IPC9592A-2010 IEC60068-2-27	Half sine wave, 16ms, at least 30g. 3 axial, each axial 3 times. During the test, each power output and signal output should be monitored continuously. The monitoring period should be less than 1ms.	Power supply voltage is within the specification limits during the test.
3	packaging random vibration	≥ 3	IPC9592A-2010 IEC60068-2-64	ASD: 5~1000Hz: 0.05g ² /Hz; 1000~2000Hz: 6db/oct; 2000Hz: 0.0125g ² /Hz. About 9Grms, 3 axial, each axial at least 10min. Each PSU should have independent packaging follow normal delivery.	After the test, product should be inspected. Allows minor damage without affecting appearance, installation, or function. Connector pins are not allowed to bend, switch damage, handle damage. Label readability is poor, metal deformation or bending. All equipment through functional testing. Test shipment packaging damage degree does not make judgment requirements.



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12.0 MTBF

Quantitative reliability (Quantitative) performance requirements: MTBF (MTBF Mean Time Between Critical Failure), according to the Bellcore standard : Telcordia Technologies SR-332 (Method I Case 3), the PSU operates continuously under 25degC condition, 230V/50HZ under max load, and MTBF is more than 100000 hours, the testing process should not be interrupted.

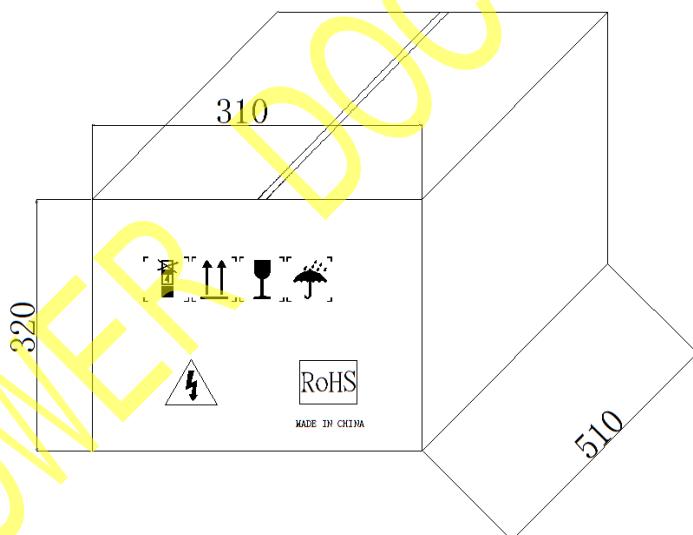
Life time ≥ 5 years at 25°C ambient @100% load under 230Vac/50Hz.

Table20.

Input Voltage	Load	MTBF
230VAC/50Hz	+3.3V/18.4A,+5V/18.4A,+12V/44.0A,-12V/0.8A,+5VSB/2.3A	100000hours

13.0 PACKAGE

13.1 Outline Diagram of Carton



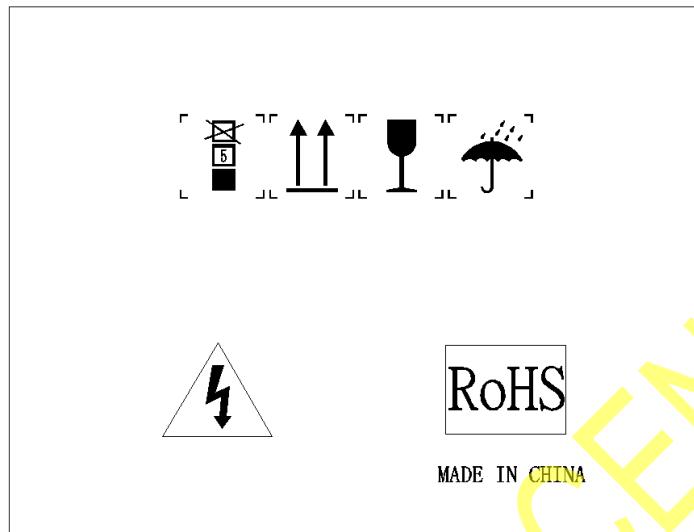
Note:

1. Material: outside the box: K=K, five layers of corrugated paper, the thickness: 5.0mm min, Bursting strength: 11KG min.
2. Outline: bright and clean, no stain, yellow white and no color difference, no gap junction.
3. Dimension: above dimensions for carton size, tolerance +/-3mm.

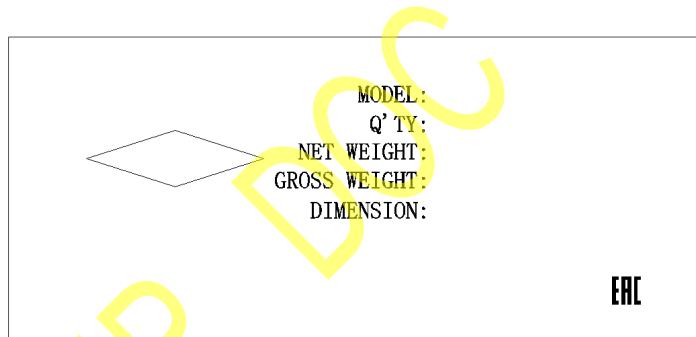


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13.2 Side Label



13.3 Front Label



14.0 STRESS/COMPONENT DE-RATING

The following component de-rating requirements shall be followed:

1. The semiconductor junction temperature at all loads condition, all input voltage range, and ambient of 50°C shall not exceed 90% rated specification.
2. Capacitor: ripple current: 90% of rated specification at frequency and temperature.
Voltage: 90% of the rated specification. Bulk cap voltage de-rating <=90% of the rated specification, if not meet this limited, Manufacturers need to provide guarantee letter.
3. Resistor: The power of resistor's de-rating <=65% of the rated specification whatever is ambient or high 50°C condition and all of input voltage range.
4. Static voltage/power/current de-rating of all components <=90% of the rated specification. The OCP current must be considered the output component de-rating. Vr/Ipeak/If of diode shall meet 90% of spec rating. The voltage and current rating for Dynamic/output short/input on off of all



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component \leq 100% of the rated specification. Main switch MOSFET voltage de-rating \leq 90% of the rated specification at steady status, and \leq 100% of the rated specification at transient status.

5. Transformer and Inductor:

Transformer and Inductor core and coil temperature shall not exceed 110°C and 80% of rated temperature ambient of 50°C.

The core/junction temperature of all other components at all load condition, all input voltage range, and ambient of 55°C shall not exceed 110°C(130°C max) and 150°C(175°C max), and the thermal rating must be less than 80% rated specification.

The component thermal shall not reach its max specification rating while the power supply OTP/OCP trips due to the excessive heat in the all load/input voltage condition.

6. Component select requirements:

For PFC booster: Vds \geq 600V.

For main switching MOSFET Vds \geq 600V; (full/half bridge or double forward topology).

For auxiliary switching MOSFET Vds \geq 800V for single forward or Flyback topology, and the MOSFET must be separated from switching controller, so the TOP switch or Tiny switch shall be prohibited.

Bulk cap: The max voltage of \geq 450V. Temperature is 105°C.

To meet 5 years life time, the Basic life Lo of bulk capacitor must be higher than 3000Hrs. And it is acceptable that the supplier must provide the evidence to ensure the life time meet 5 years by the calculating formula if the Basic life Lo is less than 3000Hrs.

7. MOV / Spark gap:

MOV/spark gap voltage must be up to 300Vrms if the MOV or spark gap is used. The voltage of other primary side components must also suffer up to 300Vrms.

8. The board material (PWB) shall be rated 130°C minimum. And the surface temperature shall not exceed 100°C.

15.0 SAFETY CERTIFICATION

CCC certification

CE certification

FCC certification



深圳欧陆通电子股份有限公司



中国国家强制性产品认证证书

证书编号: 2014010907728009

委托人名称、地址

深圳欧陆通电子有限公司
深圳福田深南路会展中心6007号1603室

生产者(制造商)名称、地址

深圳欧陆通电子有限公司
深圳福田深南路会展中心6007号1603室

生产企业名称、地址

深圳欧陆通电子有限公司
深圳市宝安区西乡镇九围路111号富源工业城C7、C8栋

产品名称和系列、规格、型号

交换式电源供应器

见附件(不带电线组件销售, 仅适用于海拔5000米及以下)

产品标准和技术要求

GB4943.1-2011; GB17625.1-2012; GB9254-2008 (A级)

上述产品符合强制性产品认证实施规则
CNCA-01C-020: 2010的要求, 特发此证。

发证日期: 2014年10月29日

有效期至: 2019年10月29日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。

本证书的相关信息可通过国家认监委网站www.cnca.gov.cn查询



主任:

中国质量认证中心

中国·北京·南四环西路188号9区 100070

<http://www.cqc.com.cn>

Q 0979913





深圳欧陆通电子股份有限公司



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

No. : 2014010907728009

NAME AND ADDRESS OF THE APPLICANT

SHENZHEN HONOR ELECTRONIC CO., LTD
Room 1603, chuangzhan center , No. 6007 shennan Road, Futian , shenzhen , China

NAME AND ADDRESS OF THE MANUFACTURER

SHENZHEN HONOR ELECTRONIC CO., LTD
Room 1603, chuangzhan center , No. 6007 shennan Road, Futian , shenzhen , China

NAME AND ADDRESS OF THE FACTORY

Shenzhen Honor Electronic Co., Ltd.
No. C7-C8, Fuyuan Industry Park, No. 111 Jiwei Road, Xixiang Town, Bao'an,
Shenzhen, China

NAME, MODEL AND SPECIFICATION

Swtiching POWER

See Appendix (Sale without cord set,Altitude up to 5000m)

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

GB4943.1-2011;GB17625.1-2012;GB9254-2008(Class A)

This is to certify that the above mentioned products have met the requirements of implementation rules for compulsory certification(REF NO. CNCA-01C-020:2010).

Date of issue: Oct. 29, 2014 Date of expiry: Oct. 29, 2019

Validity of this certificate is subject to positive result of the regular follow up inspection by issuing certification body until the expiry date.

This certificate can be verified through CNCA's website: www.cnca.gov.cn



President:

Wang Kejiao

CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan Xilu, Beijing 100070 P.R.China

<http://www.cqc.com.cn>



Q 0979913



深圳欧陆通电子股份有限公司



中国国家强制性产品认证证书

附录:

第 1 页 共 1 页

证书编号: 2014010907728009

纸号: 979913

交流输入电压 100~240Vac, 50/60Hz,

序号	型号	输入电流	直流输出								
			3.3V	5V	12V	-12	-5V	5VSB	总功率	3.3V&5V	
1	R2A-MV0700	10.0 A max	30.0 A	30.0 A	58.0A	1.0A	0.5A	3.0A	700.0W	200.0W	
2	R2A-MV0650	10.0 A max	30.0 A	30.0 A	54.0A	1.0A	0.5A	3.0A	650.0W	200.0W	
3	R2A-MV0600	8.0A max	30.0 A	30.0 A	50.0A	1.0A	0.5A	3.0A	600.0W	180.0W	
4	R2A-MV0550	8.0A max	30.0 A	30.0 A	46.0A	1.0A	0.5A	3.0A	550.0W	180.0W	
5	R2A-MV0500	8.0A max	30.0 A	30.0 A	42.0A	1.0A	0.5A	3.0A	500.0W	160.0W	
6	R2A-MV0450	6.3A max	30.0 A	30.0 A	38.0A	1.0A	0.5A	3.0A	450.0W	160.0W	
7	R2A-MV0400	6.3A max	30.0 A	30.0 A	33.0A	1.0A	0.5A	3.0A	400.0W	160.0W	
8	R2A-MV0355	6.3A max	30.0 A	30.0 A	29.0A	1.0A	0.5A	3.0A	355.0W	160.0W	

注: -5V 可选

注: 此附录与证书同时使用时有效。



主任:

中国质量认证中心

中国·北京·南四环西路 188 号 9 区 100070

<http://www.cqc.com.cn>





深圳欧陆通电子股份有限公司



Shenzhen Academy of Metrology & Quality Inspection



National Digital Electronic Product Testing Center

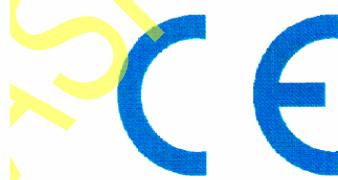
Certificate Of Compliance

Certification No.	WT148001635
Applicant	SHENZHEN HONOR ELECTRONIC CO., LTD. Room 1603 Chuangzhan center, No.6007 Shennan Road, Futian, Shenzhen City, GuangDong, China
Manufacturer	SHENZHEN HONOR ELECTRONIC CO., LTD. Room 1603 Chuangzhan center, No.6007 Shennan Road, Futian, Shenzhen City, GuangDong, China
Product	Switching Power Supply
Model	R2A-MV0700, R2A-MV0650, R2A-MV0600, R2A-MV0550, R2A-MV0500, R2A-MV0450, R2A-MV0400, R2A-MV0355
Trade mark	ASPOWER

Applicable Standard(s)

EN 55022:2010+AC:2011 (Class A)
EN 55024:2010
EN 61000-3-2:2006+A1:2009+A2:2009
EN 61000-3-3:2013

The certificate of compliance shows that the tested sample technically complies with essential requirements as given in Annex I Article 1(a), (b) of EC Directive 2004/108/EC. The certificate applies to the tested sample above mentioned only and shall not imply an assessment of the whole production.



Authorized Signer:

Issued Date: Oct. 10, 2014





深圳欧陆通电子股份有限公司



Shenzhen Academy of Metrology & Quality Inspection



National Digital Electronic Product Testing Center

Certificate Of Compliance

Certification No.	WT148001634
Applicant	SHENZHEN HONOR ELECTRONIC CO., LTD. Room 1603 Chuangzhan center, No.6007 Shennan Road, Futian, Shenzhen City, GuangDong, China
Manufacturer	SHENZHEN HONOR ELECTRONIC CO., LTD. Room 1603 Chuangzhan center, No.6007 Shennan Road, Futian, Shenzhen City, GuangDong, China
Product	Switching Power Supply
Model	R2A-MV0700, R2A-MV0650, R2A-MV0600, R2A-MV0550, R2A-MV0500, R2A-MV0450, R2A-MV0400, R2A-MV0355
Trade mark	ASPOWER

Applicable Standard(s)

FCC Part 15:Subpart B (Class A)

The certificate of compliance shows that the tested sample technically complies with the standards listed above. The certificate applies to the tested sample above mentioned only and shall not imply an assessment of the whole production.



Authorized Signer:

Issued Date:



Oct. 10, 2014



深圳欧陆通电子股份有限公司

16.0 Label

