Jasper Electronics

Electrical Specifications

==========

Customer :

Customer P/N :

Model No. : VEG120C-240AA

SPEC No. : VEG120X-240-01

Revision : 1.0

Customer Signature

Approval	Check	Prepare

AC Adapter Specifications

Table of contents

1580 North Kellogg Drive, Anaheim, Ca. 92807
Tel : 714-917-0749
Fax : 714-917-0786
Web site : http://www.jasperelectronics.com
E-mail : sales@jasperelectronics.com

1. SCOPE :

The purpose of this document is to specify the functional requirements of a 120W continuous, universal input, constant voltage switching adapter.

2. INPUT CHARACTERISTICS :

2.1 Input Voltage :

Nominal Voltage : 100 – 240 Vac.
Variation Range : 90 – 264 Vac.

2.2 Input Frequency :

Nominal Frequency : 50 – 60 Hz.
Variation Range : 47 – 63 Hz.

2.3 Input Current :

3.16 Arms maximum at any input voltage & maximum load.

2.4 Inrush Current :

100A maximum at 264 Vac.

2.5 Efficiency :

84% Minimum at nominal input & full load.

2.6 Power Factor

The power factor is more 0.9 measured at nominal input voltage & maximum load.

3. OUTPUT CHARACTERISTICS:

3.1 Output Rating : (Constant Voltage Mode)

O/P Voltage	Regulation	Load Min	Load Max	Max Power	Ripple	Ripple+Noise
+24.0V	+/- 5%	0A	5A	120W	240mVp-p	320mVp-p

Note :

1. Measured at output power connector.

2. Ripple and Noise are measured at output terminal, add with a tantalum

1580 North Kellogg Drive, Anaheim, Ca. 92807
Tel : 714-917-0749
Fax : 714-917-0786
Web site : http://www.jasperelectronics.com
E-mail : sales@jasperelectronics.com

capacitor of 10uF and a ceramic capacitor of 0.1uF.

3.2 Dynamic Load Current :

Dynamic Load : 20% to 80% to 20% of the output load.
Frequency : 100Hz to 1kHz.
Duty cycle : 50%
Voltage deviation : < = 10%
Recovery Time : < = 1mS

3.3 Turn On Delay Time :

3 seconds maximum at nominal input voltage & maximum load.

3.4 Rise Time :

50mS Max. From 5% to 95% of output voltage, 50% max. load & nominal input voltage.

3.5 Overshoot :

Not exceed nominal output voltage 10% maximum.

3.6 Output Hold Up Time :

8 mS minimum at 115 Vac or 230 Vac input.

4. PROTECTION REQUIREMENTS :

4.1 Output Short Circuit Protection :

The power supply shall be operating any output in a short circuit condition .
The power supply will go into latch-off mode , AC input to restart the power supply.

4.2 Output Over Voltage Protection :

The power supply shall be shutdown when output voltage reaches to its over-voltage protection trigger point 27V maximum .
The power supply will go into latch-off mode , AC input to restart the power supply.

4.3 Output Overload Protection :

Output current 9A maximum.

1580 North Kellogg Drive, Anaheim, Ca. 92807
Tel : 714-917-0749
Fax : 714-917-0786
Web site : http://www.jasperelectronics.com
E-mail : sales@jasperelectronics.com

5. ENVIRONMENTAL REQUIREMENTS :

5.1 Operating temperature : 0 to 40 °C.

5.2 Storage temperature : -20 to 85 °C.

5.3 Operating relative humidity : 20% to 90%.

5.4 Storage relative humidity : 5% to 95%.

6. SAFETY REQUIREMENTS :

6.1 Dielectric Withstand Voltage :

Minimum dielectric withstand voltage: Input to output 1800 Vac for 1 minute.

6.2 Leakage Current :

Less then 3.5mA when 264Vac (60Hz) input.

6.3 Insulation Resistance

Minimum insulation resistance: Input to output 10Mohm.

6.4 Safety Standards

meet UL , cUL, GS, CB, CE

7. INTERNATIONAL STANDARDS :

7.1 EMI STANDARDS :

The power supply shall meet the radiated and conducted emission requirements for FCC part 15 CLASS B , EN55022 CLASS B .

7.2 EMS STANDARDS

The power supply shall meet the following EMS standards :

7.2.1 EN61000-4-2 Electrostatic Discharge (ESD)

Static – discharge test by contract or air should be conducted with static – discharge teeter , energy storage capacitance of 150pF , and discharge resistance of 330Ω 8KV air discharge , 4KV contact discharge .

1580 North Kellogg Drive, Anaheim, Ca. 92807
Tel : 714-917-0749
Fax : 714-917-0786
Web site : http://www.jasperelectronics.com
E-mail : sales@jasperelectronics.com

7.2.2 EN61000-4-3 RADIATED ELECTROMAGNETIC FIELDS(RS)
Radio – frequency electromagnetic field susceptibility test . RS, 80 – 1000MHz , 3Vm , 80% AM(1KHz),
Performance criterion A .

7.2.3 EN61000-4-4 ELECTRICAL FAST TRANSIENT / BURST (EFT)
Power Line to Line : 1KV
Performance criterion B.

7.2.4 EN61000-4-5 LIGHTNING SURGE ATTACHMENT
Lightning surge voltage of differential and common modes shall be applied across AC input line and across input and frame ground .
Power Line to Neutral : 2KV
Line to PE : 4KV
Neutral to PE:4KV
Performance criterion B .

7.2.5 EN61000-4-6 CONDUCTED RADIO FREQUENCY DISTURBANCES(CS)
Conducted Radio frequency disturbances test , CS, 0.15 – 80MHz, 3V/m, 80%AM, 1KHz,
Performance criterion A .

7.2.6 EN61000-4-8 POWER FREQUENCY MAGNETIC FIELD
Power frequency magnetic field test, 50Hz, 3A/
Performance criterion A

7.2.7 EN61000-4-11 VOLTAGE DIPS/SHORT INTERRUPTION / VARIAIONS
Voltage dips, 30% reduction – 10msec , Performance criterion B, 60% reduction – 100msec, Performance criterion C, Voltage interruptions > 95% reduction – 5,000msec, Performance criterion C .

7.2.8 EMI STANDARDS :
The power supply shall meet the radiated and conducted emission requirements for FCC part 15 CLASS B , EN55022 CLASS B .

8. MECHANICAL REQUIREMENTS :

8.1 INPUT AND OUTPUT CONNECTOR ASSIGNMENT :

The input and output connector assignment of the power supply , please see attached outline drawing .

1580 North Kellogg Drive, Anaheim, Ca. 92807
Tel : 714-917-0749
Fax : 714-917-0786
Web site : http://www.jasperelectronics.com
E-mail : sales@jasperelectronics.com

8.2 PHYSICAL DIMENSIONS :

The input and output connector assignment of the power supply , please see attached outline drawing .

1580 North Kellogg Drive, Anaheim, Ca. 92807
Tel : 714-917-0749
Fax : 714-917-0786
Web site : http://www.jasperelectronics.com
E-mail : sales@jasperelectronics.com