

PRODUCT SHEET & SPECIFICATIONS

i.Net POWER SUPPLY

MODELS G14-P320 / PS-24VDC-4A



NOTE: G14-P320 (48v) for use with the G525 OP
PS-24-VDC-4A (24v) not compatible with the G525 OP

FUNCTION

Lencore's i.Net system use a 48 Volt DC power supply unit to power the OP. The G14-P320 is connected to the system's sound source (OP) using a 2 conductor, plenum rated 16 gauge wire. To install the G14-P320, mount the unit to the wall with angle brackets and screws to fasten. Keep vents exposed. A 24 Volt DC power supply unit may be used to power accessory items such as strobes. The PS-24VDC-4A is connected to the accessory item using 2 conductor, plenum rated 16 gauge wire.

FEATURES

- + Universal AC input/full range
- + Built-in active PFC function, PF>0.95
- + Protections – short circuit/over load/over voltage/over temperature
- + Forced air cooling by built-in DC Fan
- + Built-in fan speed control
- + Fixed switching frequency at 100KHz

POWER SUPPLY 48V (for use with the G525 OP)

OUTPUT

- + DC Voltage – 48V
- + Rated Current – 6.7A
- + Current Range – 0 ~ 6.7A
- + Rated Power – 321.6W
- + Ripple & Noise (max.) – 240mVp-p (Note.2)
- + VoltageADJ. Range – 41 ~ 56V
- + Voltage Tolerance – ±1% (Note.3)
- + Line Regulation – ± 0.2%
- + Load Regulation – ± 0.5%
- + Setup, Rise Time – 800ms, 50ms/230VAC
2500ms, 50ms/115VAC at full load
- + Hold Up Time (Typ.) – 16ms/230VAC
16ms/115VAC at full load

INPUT

- + Voltage Range – 88 ~ 264VAC, 124 ~ 370VDC (Note.5)
- + Frequency Range – 47 ~ 63Hz
- + Power Factor (Typ.) – PF>0.95/230VAC, PF>0.98/115VAC at full load
- + Efficiency (Typ.) – 89%
- + AC Current (Typ.) 115VAC – 5A
- + AC Current (Typ.) 230VAC – 2.5A
- + Inrush Current (Typ.) – 20A/115VAC, 40A/230VAC

PROTECTION

- + Overload
105 ~ 135% rated output power
Protection type – Hiccup mode, recovers automatically after fault condition is removed
- + Over Voltage
57.6 ~ 67.2V
Protection type – Shut down o/p voltage, re-power on to recover
- + Over Temperature
80°C ± 5°C (70 °C ± 5°C 3.3V 5V only) (TSW1 – detect on heatsink of power transistor)
Protection type – Shut down o/p voltage, recovers automatically after temperature goes down

DIMENSIONS

- + Dimension – w 8.46" x h 4.53" x d 1.97"
- + Packing – 1.1Kg; 12pcs/14Kg/0.92CUFT

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POWER SUPPLY 48V (for use with the G525 OP)

SAFETY & EMC

- + Safety Standards – UL60950-1, TUV EN60950-1, CCC GB4943 approved
- + Withstand Voltage – I/P-O/P:3KVAC, I/P-FG:1.5KVAC, O/P-FG:0.5KVAC
- + Isolation Resistance – I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH
- + EMI Conduction & Radiation – Compliance to EN55022 (CISPR22) Class B
- + Harmonic Current – Compliance to EN 61000-3-2, -3
- + EMS Immunity – Compliance to EN 61000-4-2,3,4,5,6,8,11; ENV 50204, EN 55024, light industry level, criteria A

ENVIRONMENT

- + Working Temp. – -20 ~ +65°C (Refer to output load derating curve)
- + Working Humidity – 20 ~ 90% RH non-condensing
- + Storage Temp. Humidity – -40 ~ +85°C, 10 ~ 95% RH
- + Temp. Coefficient – 0.03%/°C (0 ~ 50°C)
- + Vibration – 10 ~ 500Hz, 2G 10min./1cycle, 60min each along X,Y, Z axes

NOTES

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Derating may be needed under low input voltages. Please check the derating curve for more details.

POWER SUPPLY 24V

(not compatible with the G525 OP)

OUTPUT

- + DC Voltage – 24dc
- + Output Current – 4.2A
- + Output Power - 100W
- + Adjustable Output Range - $\pm 10\%$
- + Ripple & Noise - 100mV
- + Load Regulation - $\pm 0.5\%$
- + Line Regulation – $\pm 0.5\%$
- + Efficiency – 84%
- + Temperature Drift- $<0.03\%/^{\circ}\text{C}$ (10-50°C)
- + Start-up Time- 300ms max @230VAC
- + Hold Up Time (Typ.) – 20ms min, 100% Load@230 Vac
- + Rise Up Time (Typ.) – 600ms min, 100% Load@230 Vac
- + Over Current Protection – at $105\% < \text{Load} < 145\%$ @I/P:115/230Vac. Reset by recycle AC On/OFF

POWER SUPPLY 24V

(not compatible with the G525 OP)

INPUT

- + Voltage Range – 88 ~ 264VAC
- + Frequency Range – 47 ~ 63Hz
- + Max. Input Current- 1.8A @ Vin (rated)
- + Max Inrush Current- 20A @110Vac, 40A @220 Vac cold start
- + Power Factor- >0.92
- + Leakage Current- $<3.5, A/240\text{Vac}$

DIMENSIONS

- + Dimension – w 7" x h 4" x d 2"
- + Weight- 1.3lbs.

PROTECTION

- + Overload
105 ~ 135% rated output power
Protection type – Hiccup mode, recovers automatically after fault condition is removed
- + Over Voltage
57.6 ~ 67.2V
Protection type – Shut down o/p voltage, re-power on to recover
- + Over Temperature
80°C \pm 5°C (70 °C \pm 5°C 3.3V 5V only) (TSW1 – detect on heatsink of power transistor)
Protection type – Shut down o/p voltage, recovers automatically after temperature goes down

SAFETY & EMC

- + EMC Emissions – Conforms to EN55022, VCCI, CISPR22 Class B (conducted & radiated); IEC- 61000-4-2, 61000-4-4, 61000-4-5, 61000-4-11 ESD Susceptibility- EN61000-4-2 (15kV/8kV)
- + Radiated Susceptibility- EN61000-4-3 (3Vm-1)
- + Fast Burst- EN61000-4-4 (2kV)
- + Surge- EN61000-4-5 (1kV/2kV)
- + Safety Approval- UL60950 (UL File No: E204980), TUV EN60950 (TUV:50058679)

ENVIRONMENT

- + Operating Temperature – -10° to 60°C
- + Operating Humidity – 20 to 90% RH non-condensing
- + Storage Temp. Humidity – -25 to 75°C, 10 to 95% RH, non-condensing
- + Vibration – 10 - 55Hz, 2G 1min./1cycle, 60min, each along X,Y, Z axes