



Procurement Specifications for
Model CPS-TS2
TS-2 Cabinet Power Supply

General: The power supply incorporates an advanced switch mode design to achieve high efficiency, outstanding load and AC line regulation with excellent transient response even under very heavy capacitive loading. Both DC output voltages (12VDC and 24VDC) are super clean of electronic noise (exceeds class A of FCC sub part 15 standard) and able to source high amperage of up to 5 Amps and therefore very suitable for cabinets required to support video detection. It comes in a small compact rugged form (1/2 width form factor) preserving valuable shelf space. Active power factor correction provides lower operating cost and keeps the AC line clean of unwanted conductive emissions and transients. On loss of AC power, the CPS-TS2 power supply maintains far longer hold-times than NEMA standard even under heavy loading. The CPS-TS2 meets and exceeds the NEMA TS-2 2003 standards; thus, the CPS-TS2 makes it easy to save lives through its support of low or high power traffic cabinets.

Environmental: Complies with NEMA TS-2 2003 Standards

Operating Ambient Temperature: -40° C to +85° C

Power Factor: ≥ 0.98 at full load

Efficiency: $\geq 80\%$ at full load

Front Panel Connector: MS3106A-18-1SW

Front Panel Test Jacks: for all AC and DC outputs

Input voltage Indication: When AC Line voltage is present (≥ 70 VAC) the front panel LED illuminates green. The LED extinguishes when AC voltage is absent or low.

Input Line Frequency: 43 Hz to 65 Hz

Input Line Voltage: 80 VAC to 150 VAC

Line Regulation: $\pm 0.1\%$

Fuse Protection: The AC line is protected with a 4 Amp slow blow 3AG fuse (front panel).

Over current protection: if a DC output reaches to 5.5Amps, the CPS-TS2 enters into a constant current mode, delivering only 5.5Amps. If a short occurs on the DC output, that output shuts off until short is removed.

Output voltage indication: When either the 12 VDC or 24 VDC output voltage varies by more than ± 1 VDC, their respective front panel LED changes from green to red. If the power supply shuts down due to a fault, the front panel LED turns off.

DC Outputs: 12 VDC $\pm 2\%$ @ 5 Amps and 24 VDC $\pm 2\%$ @ 5 Amps

Output Ripple: Less than 100 mV Peak to Peak

Fuse Protection: DC outputs are protected with 5 Amp 3AG Fast blow fuses (front panel).



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Output - 12 VAC 60 Hz: The sine wave output is referenced to AC neutral and provides up to 250 mA_RMS. The output is protected with a 0.25 Amp 3AG front panel slow blow fuse.

Output - Line Freq. Ref.: The line frequency reference output is a 60 Hz square wave with amplitude of 24 VDC +/-2% referenced to DC common. The output can source or sink 100 mA. Transitions of the square wave occur well within +/-50 microseconds of the AC zero crossing.

Initial startup: A soft start feature is provided for starting up under heavy loads. Power draw from the AC line is ramped up over a 4 millisecond period.

In-rush current: In-rush current is limited to less than 3 Amps AC.

Self-checking: Self-monitoring feature shuts down the DC output in the event of a failure or excessive load.

Emissions: Radiated and conductive emissions are in compliance with FCC part 15, Class A. An aluminium enclosure and EMI filter minimize radiated and conductive emissions.

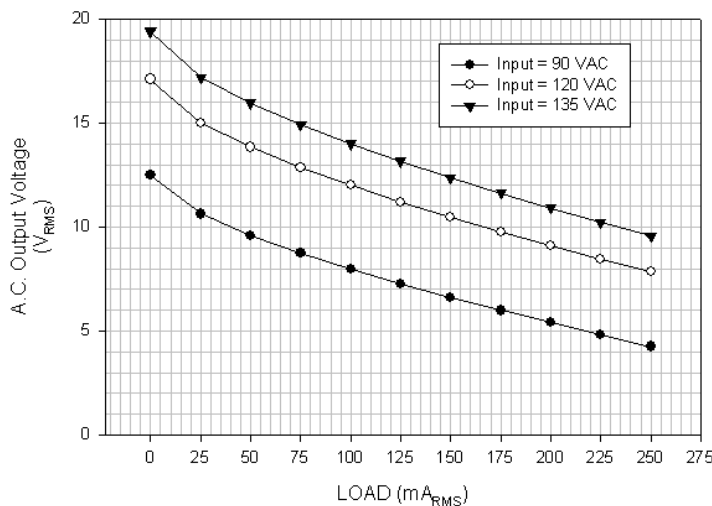
Circuit Board: The printed circuit board is 0.062 inch thick FR4 material with 2 Oz. Copper. All holes are plated through. Circuit boards and components are conformal coated with a polyurethane coating.

Enclosure: The enclosure is fabricated with powder coated aluminum. Attachment points are located on top and bottom for rigid mounting.

Size: 3.4 inches wide x 7.1 inches high x 7.4 inches deep (1/2 width form factor)

Weight: 2.71 pounds

12 VAC Unregulated Output:



Pin Assignment:

Pin	Function
A	AC Neutral
B	Line Freq. Ref.
C	AC Line
D	+12 VDC
E	+24 VDC
F	Not Used
G	Logic Ground
H	Earth Ground
I	12 VAC
J	Not Used

