

DC Power Supply



Models: N-12V-10A, N-13V-10A, N-24V-10A
Input: 80 VAC to 135 VAC, 45-65 Hz
Outputs*: 12VDC, 13VDC, 24VDC @ 10Amps
***Contact Reno A&E for other output voltages**

Switch Mode Power Supply
High Efficiency - Power Factor Corrected

Specifications

General: The power supply incorporates an advanced switch mode design. Efficiency is 80% or greater, nominally 90% or greater at 120 VAC input. D.C. output is rated at 10 Amps for all voltages. Output load regulation is $\pm 2\%$

Environmental: Complies with NEMA TS-2 2003 Standards

Operating Ambient Temperature: -40°C to $+85^{\circ}\text{C}$

Power Factor: ≥ 0.95

Efficiency: $\geq 80\%$

Input power cord: AC Line voltage is supplied via a 10 foot long three conductor 18AWG power cord.

Power Switch: A rocker style front panel mounted switch controls the input AC line voltage.

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: 47 Hz to 63 Hz

Input Line Voltage: 80 VAC to 135 VAC

Line Regulation: $\pm 0.1\%$

Power Factor: ≥ 0.95

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

Output voltage connector: Regulated DC output voltage is accessed via a front-panel mounted three contact terminal strip.

Over current protection: The A.C. input and D.C. outputs are fused with front panel accessible 3AG slow blow fuses. If the D.C. load exceeds 10 Amps for longer than 100 milliseconds the D.C. output is shut down. Once the excessive load is removed the power supply recovers.

Output voltage indication: When the DC output voltage exceeds more than ± 1 VDC from the nominal output voltage the front panel LED changes from green to red. The LED remains red until output voltage returns to within ± 1 VDC of the nominal output voltage. If the power supply shuts down due to a fault, the front panel LED turns off.

DC Outputs: 12 VDC $\pm 2\%$, 13 VDC $\pm 2\%$, 24 VDC $\pm 2\%$ @ 10 Amps max. (Contact Reno A&E for different output voltages.)

Load Regulation: $\pm 2\%$

Output Ripple: Less than 100 mV Peak to Peak

Fuse Protection: The DC output is protected with a 10 Amp 3AG Fast blow fuse.

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

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

Self-checking: Self-monitoring features insure shutdown of the D.C. output in the event of a critical component failure or excessive load.

Emissions: Radiated and conductive emissions are in compliance with FCC part 15, Class A. An aluminum 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 power supply is shelf mounted. The enclosure provides attachment points on top, bottom, both sides, and back for rigid mounting.

Size: 3.4 inches wide x 6.0 inches high x 8.1 inches deep

Weight: 2.71 pounds.

AC Power Cord	
Wire Color	Function
Black	AC Line
White	AC Neutral
Green	Earth Ground

Front Panel Terminal	
Terminal	Function
Left	DC -
Middle	Earth Ground
Right	DC +