

# Environmental & Packaging Specifications AN-122





Condor D.C. Power Supplies designs and manufactures power supplies for use in many types of electronic equipment. The environmental and mechanical specifications listed below represent the normal design standard and test parameters used for medical, communications, information technology and other similar applications. Equipment designed for more severe applications may require additional testing or modification—consult factory for assistance.

### THERMAL DESIGN CONSIDERATIONS

Power supplies generate waste heat which is assumed to be dissipated into the surroundings. Natural convection-cooled designs assume minimal restrictions in convection. If the local ambient temperature in close proximity to the power supply is more than 10°C above the stated operating temperature, derating or additional cooling may be required. Condor assumes the heatsinks will operate below 90°C on a continuous basis to provide long life and desired reliability. Condor can provide applications assistance if required.

Environmental Specification	Operating	Non-operating
Temperature (A)	See individual specs	-40 to +85°C
Humidity (A)	0 to 95% RH	0 to 95% RH
Shock (B)	20 g <sub>pk</sub>	40 g <sub>pk</sub>
Altitude	-500 to 10,000 ft	-500 to 40,000 ft
Vibration (C)	1.5 g <sub>rms</sub> , 0.003 g <sup>2</sup> /Hz	5 g <sub>rms</sub> , 0.026 g <sup>2</sup> /Hz

- A. Units should be allowed to warm up/operate under non-condensing conditions before application of power.
- B. Random vibration—10 to 2000Hz, 6dB/octave roll-off from 350 to 2000Hz, 3 orthogonal axes. Tested for 10 min./axis operating and 1 hr./axis non-operating.
- C. Shock testing—half-sinusoidal, 10 ± 3 ms duration, ± direction, 3 orthogonal axes, total 6 shocks.

Individual units packaged to provide protection during normal shipment. Shipping packaging tested for vibration and drop protection per ISTA Project 1A.



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