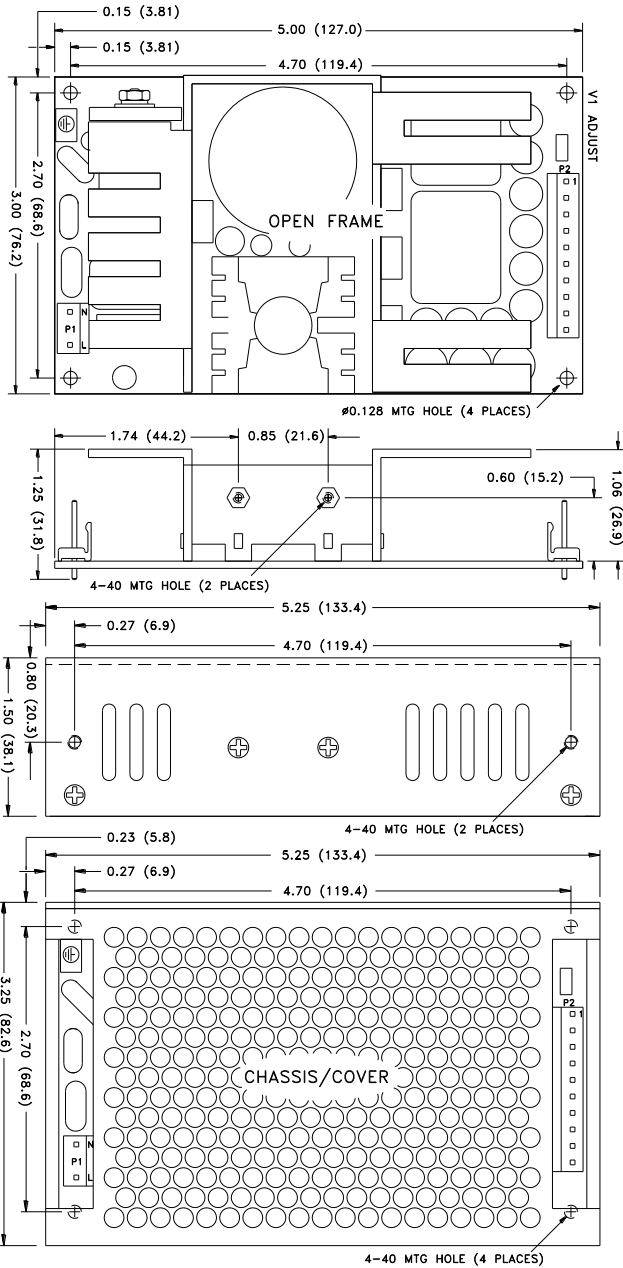




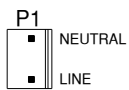
# GRN-110 MULTI MECHANICAL SPECIFICATIONS

# APPLICATIONS INFORMATION

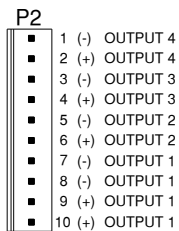


ALL DIMENSIONS IN INCHES (mm)

## CONNECTOR SPECIFICATIONS



**P1**  
 AC Input  
 0.156 friction lock header mates with Tyco 640250-3 or equivalent crimp terminal housing with Tyco 3-640706-1 or equivalent crimp terminal.



**P2**  
 DC Output  
 0.156 friction lock header mates with Tyco 1-770849-0 or equivalent crimp terminal housing with Tyco 3-640707-1 or equivalent crimp terminal.

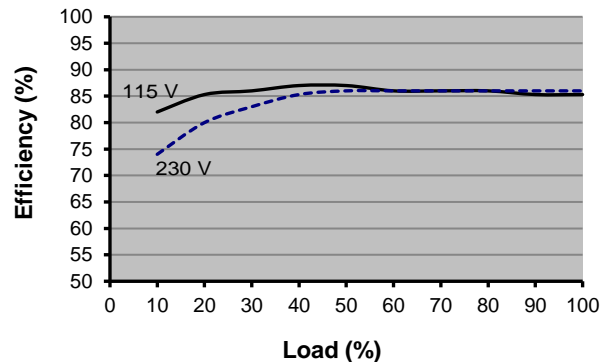


Ground 0.187 quick disconnect terminal

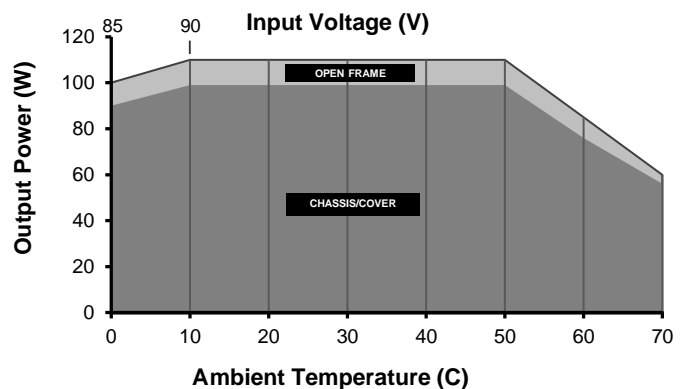
- Each output can deliver its rated current but Total Output Power must not exceed 110W.
- Generally, adequate cooling is provided when semiconductor case temperatures do not exceed 70°C rise and transformer temperature does not exceed 60°C rise at any specified ambient temperature.
- Sufficient area must be provided around power supply to allow natural movement of air to develop in convection-cooled applications.
- This product is intended for use as a professionally-installed component within information technology, industrial, and medical equipment and is not intended for stand-alone operation.
- Minimum load is not required for reliable operation; however, a 10% load may be required on Output 1 when loading Outputs 2, 3 or 4.
- This product includes only one fuse in the input circuit. In consideration of clause 8.11.5 of IEC 60601-1-1:2005, a second fuse may be required in neutral conductor of the end product.
- Peak-to-Peak Output Ripple and Noise is measured directly at the output terminals of the power supply, without the use of the probe ground lead or retractable tip (tip-and-barrel method), 20 MHz bandwidth.
- This product was type-tested and safety-certified using the dielectric strength test voltages listed in Table 6 of IEC60601-1:2005. In consideration of clause 8.8.3, care must be taken to insure that the voltage applied to a reinforced insulation does not overstress different types and levels of insulation. Primary and secondary-to-ground capacitors may need to be disconnected prior to performing a dielectric strength type test on the power supply or the end product. It is highly recommended that the DC test voltage listed in DVB.1, annex DVB of UL60601-1 1<sup>ST</sup> Edition are not exceeded during a production-line dielectric strength test of the assembled end product. Please consult factory for further information.
- This power supply has been safety-approved and final-tested using a DC dielectric strength test. Please consult factory before performing an AC dielectric strength test.
- Maximum screw penetration into bottom chassis mounting holes is 0.100 inches. Maximum screw penetration into side chassis mounting holes is 0.188 inches.
- To comply with emissions specifications, all four mounting hole pads must be electrically connected to a common metal chassis. Chassis/Cover option is recommended. Refer to Operating Instructions for additional information.
- Common RF shielding precautions may need to be taken to assure emissions compliance. Refer to Operating Instructions for additional information.
- Optional Output Configuration (consult factory).
  - V2 can be configured positive, negative or floating with respect to V1.
  - V3 can be configured positive or floating with respect to V1.
  - V4 can be configured positive, negative or floating with respect to V1.

## TYPICAL EFFICIENCY vs. LOAD

(Model GRN-110-3001 Efficiency shown)



## MAX P<sub>OUT</sub> vs. AMBIENT TEMPERATURE/INPUT VOLTAGE



**Derating requirements** - Derate from 100% load at 50°C to 50% load at 70°C.  
 - Derate from 100% load at 90V<sub>IN</sub> to 90% load at 85V<sub>IN</sub>.  
 - Derate 10% with Chassis/Cover option.