

# GNX-450

## LOW PROFILE - 450 WATTS

ONE TO FOUR OUTPUTS - POWER FACTOR CORRECTED 90-264 VAC

40 AMP CAPABILITY ON V2 - 50 AMPS ON V1



### FEATURES:

Low Profile 2.5" x 5" x 9.4" in Size

One to Four outputs

Meets EN55022 Level A / FCC Class A

No Additional Cooling Required up to 50 °C

Power Factor Corrected Input (90-264VAC)

Remote Sense On V1, V2 Outputs

Greater than 150,000 Hrs MTBF

Zero Wire Current Share on V1 & V2 Outputs



|    | OUTPUT<br>VOLTAGE (VDC) | OUTPUT<br>AMPERS (MAX) | OUTPUT<br>POWER (WATTS) |
|----|-------------------------|------------------------|-------------------------|
| V1 | 1.8 to 48               | 50                     | 450                     |
| V2 | 1.8 to 24               | 40                     | 200                     |
| V3 | 5 to 24                 | 12/20pk                | 150                     |
| V4 | 5 to 24                 | 4                      | 75                      |

# GNX-450 SERIES

## 450 WATT COMPACT SIZE

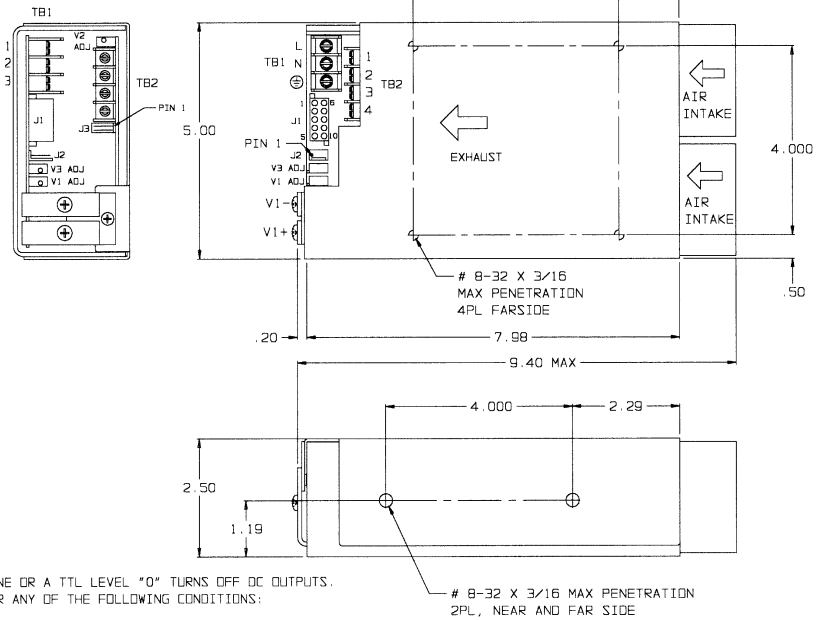
| AC INPUT (90-264 VAC CONTINUOUS RANGE) |               |               |               |
|--|---------------|---------------|---------------|
| FUNCTION                               | 115VAC        | 230 VAC       | CONNECTOR     |
| TB1-1                                  | LINE          | LINE 1        | BARRIER STRIP |
| TB1-2                                  | NEUTRAL       | LINE 2        | #6-32 SCREWS  |
| TB1-3                                  | SAFETY GROUND | SAFETY GROUND | 3/8" CENTERS  |

| DC OUTPUTS |                  |             |   |
|------------|------------------|-------------|---|
| FUNCTION   | DESCRIPTION      | LOCATION    | CONNECTOR   |
| V1         | +5V/50A          | MAIN OUTPUT | BUS BARS #10-32 SCREWS                                      |
| V2         | +3.3V/40A        | TB2-1, 2    | BARRIER STRIP #6-32 SCREWS ON 3/8" CENTERS                  |
| V3         | +3.3V RTN        | TB2-3, 4    | SCREWS ON 3/8" CENTERS                                      |
|            | +12V/12A-20A PK  | J1-4, 5, 10 | AMP #770743-1 MATES WITH CONN #770580-1 & SOCKETS #171638-1 |
|            | +12V RTN         | J1-3, 8, 9  |   |
|            | +12V/4A FLOATING | J1-2, 7     |   |
|            | -12V/4A FLOATING | J1-1, 6     |   |

| STATUS AND CONTROL |          |                     |                              |
|--------------------|----------|---------------------|------------------------------|
| FUNCTION           | LOCATION | NOTES               | CONNECTOR                    |
| REMOTE SENSE       | J2-1     | OUTPUT #1 SENSE     | MOLEX #22-04-1041            |
|                    | J2-2     | OUTPUT #1 SENSE RTN | MATES WITH                   |
| FAIL               | J2-3     | REFERENCE TO        | MOLEX #22-01-1044            |
| INHIBIT            | J2-4     | COMMON              |                              |
| REMOTE SENSE       | J3-1     | OUTPUT #2 SENSE     | MOLEX #22-04-1021            |
|                    | J3-2     | OUTPUT #2 SENSE RTN | MATES WITH MOLEX #22-01-1024 |

**NOTES:**

- INHIBIT IS OPEN TO RUN. CONTACT CLOSURE TO THE NEGATIVE SENSE LINE OR A TTL LEVEL "0" TURNS OFF DC OUTPUTS.
- FAIL SIGNAL IS A NORMAL LOGIC "1" TTL SIGNAL WHICH GOES LOW UNDER ANY OF THE FOLLOWING CONDITIONS:
  - WHENEVER THE +5V OR THE +3.3V OUTPUT FAILS.
  - WHENEVER THERE IS AN OVER TEMPERATURE CONDITION.
  - WHENEVER THERE IS AN OVER VOLTAGE SHUT DOWN.
  - WHENEVER THERE IS AN AC INPUT FAILURE (5msec WARNING BEFORE OUTPUTS GO OUT OF REGULATION).
- 90-264VAC INPUT POWER FACTOR CORRECTED.
- TOTAL OUTPUT POWER NOT TO EXCEED 450 WATTS.



\* IN PDF FORMAT, PRINT OR ZOOM TO SEE DRAWING

|  |   |
|--|---|
| <b>Nominal Input Voltage</b>           | 115-240 VAC, 6A max.  |
| <b>Frequency</b>                       | 47-63 Hz , 400Hz. available.  |
| <b>Operational Input Voltage Range</b> | 90-264 VAC<br>Power Factor 0.99 Typical at Full Load.<br>Meets EN 61000-3-2.  |
| <b>Inrush Current</b>                  | Less than 4 msec. 30 amperes @ 115 VAC<br>or 60 amperes @ 264 VAC.  |
| <b>Brownout Protection:</b>            | Holds Regulation to 85 Vac.   |
| <b>Fusing</b>                          | 10 Ampere, 250 VAC, Internal ceramic body fuse.   |
| <b>Hold up time</b>                    | 20msec minimum after loss of AC Input at full load and any input  |
| <b>Efficiency</b>                      | 70% typical   |
| <b>Turn on time</b>                    | 1 sec max. from power up. All output voltages come up within 10msec of each other.  |
| <b>Line and Load Regulation</b>        | ±2% over AC input range and 0 to 100% load change.  |
| <b>Minimum Load</b>                    | 10% minimum load required on V1 for V2 to regulate to full load. No minimum load required on V2-V4.   |
| <b>Ripple &amp; Noise</b>              | Through 20MHz 1% max. or 100mv whichever is greater for all outputs, peak to peak, with coaxial probe and 0.1uF/10uF capacitors at the connector. |
| <b>Transient Response</b>              | Output maximum excursion of ± 5% for 50% load step. Recovery less than 500 µsec.  |
| <b>Overshoot/Undershoot</b>            | No turn-on or turn-off overshoot.   |
| <b>Output Isolation</b>                | Isolated from chassis ground, 50Vdc.  |
| <b>Input/Output Isolation</b>          | 2200 VDC from input to both chassis/outputs. SELV construction.   |
| <b>Reverse Voltage</b>                 | Protected against reverse voltage to supply current rating.   |

|                                   |  |
|-----------------------------------|--|
| <b>Overvoltage Protection</b>     | Shutdown at 130% of nominal Vout V1, V2, V3. V4 failsafe design. Recycle input power to reset.   |
| <b>Overtemperature Protection</b> | Unit shuts down if overheated. Recycle AC to reset.  |
| <b>Leakage Current</b>            | 1.0mA max at 240Vac.   |
| <b>Current Limiting</b>           | All outputs short circuit protected with foldback protection. Automatic recovery upon removal of the short.  |
| <b>Paralleling</b>                | Two or more supplies can be operated in parallel and will share V1/V2 current to within 10% of each other.   |
| <b>Remote Sense</b>               | Compensates for up to 0.5V total distribution voltage drop on the V1 & V2 outputs.   |
| <b>INH</b>                        | Open to Run, Contact closure to return , turns off all outputs.  |
| <b>FAIL Signal</b>                | Normal logic '1' TTL signal which goes low whenever the V1 , V2 outputs fail, an overtemperature condition, an over voltage shut down, or an AC input failure (5msec warning before outputs go out of regulation). |
| <b>Cooling</b>                    | Integral fans provide 50cfm of air flow.   |
| <b>Operating Temperature</b>      | -40°C to 50°C operating temperature with full load.  |
| <b>Stability</b>                  | All outputs 0.1% for 8 hrs. after 30 minute warm-up.   |
| <b>Humidity</b>                   | Up to 95% non-condensing.  |
| <b>Storage Temperature</b>        | -40°C to 85°C.   |
| <b>Size</b>                       | 5" x 2.5" x 9.4" <span style="float: right;"><b>Weight:</b> 5 lbs.</span>  |
| <b>EMC</b>                        | Meets EN55022 Level A / FCC Class A conducted.   |
| <b>Safety</b>                     | UL 1950, CSA C22.2 No. 950, EN60950.   |

SERIES BREAKDOWN: GNX-450X1-P

where X1= S for Single output, D for Dual output, T for Triple output or Q for Quad output

REV: F