

GNX-251-DC

LOW PROFILE - 250 WATTS

28 VDC INPUT (18-50 VDC)

50 AMP CAPABILITY ON V1 - 40 AMPS ON V2



KEY FEATURES:

- Low Profile 2.50" X 5.00" X 9.40"
- Wide Range DC Input (18-50 VDC)
- One to Four Outputs
- Configurable with Standard PCI Voltages 5V, 3.3V, $\pm 12V$
- Remote Sense on V1 & V2 Outputs
- Zero Wire Current Sharing on V1 & V2 Outputs
- No Additional Cooling Required up to 50°C
- Meets EN55022 Level A / FCC Class A
- Rugged Mechanical Design
- One Year Warranty
- Greater than 150,000 Hrs MTBF
- Proudly Made in U.S.A.

	OUTPUT VOLTAGE (VDC)	OUTPUT AMPERS (MAX)	OUTPUT POWER (WATTS)
V1	1.8 to 48	50	250*
V2	1.8 to 24	40	200
V3	5 to 24	12/20pk	150
V4	5 to 24	4	75

*Total output power not to exceed 250 watts

GNX-251-DC SERIES

250 WATT COMPACT SIZE

DC INPUT (18-50 VDC CONTINUOUS RANGE)		
FUNCTION	28VDC	CONNECTOR
TB1-1	28VDC	BARRIER STRIP
TB1-2	28VDC RTN	#6-32 SCREWS
TB1-3	SAFETY GROUND	3/8" CENTERS

DC OUTPUTS			
FUNCTION	DESCRIPTION	LOCATION	CONNECTOR
V1	+5V/50A	MAIN OUTPUT	BUS BARS #10-32 SCREWS
	+5V RTN		
V2	+3.3V/40A	TB2-1,2	BARRIER STRIP #6-32 SCREWS ON 3/8" CENTERS
	+3.3V RTN	TB2-3,4	
V3	+12V/12A-20A PK	J1-4, 5, 10	AMP #770743-1 MATES WITH CONN #770580-1& SOCKETS #171639-1 (AWG #20 TO #16)
	+12V RTN	J1-3, 8, 9	
V4	+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 MOLEX #22-01-1044
FAIL	J2-3	REFERENCE TO COMMON	
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:

1. INHIBIT IS OPEN TO RUN. CONTACT CLOSURE TO THE NEGATIVE SENSE LINE OR A TTL LEVEL "0" TURNS OFF DC OUTPUTS.
2. FAIL SIGNAL IS A NORMAL LOGIC "1" TTL SIGNAL WHICH GOES LOW UNDER ANY OF THE FOLLOWING CONDITIONS:
 - a). WHENEVER THE +5V OR THE +3.3V OUTPUT FAILS.
 - b). WHENEVER THERE IS AN OVER TEMPERATURE CONDITION.
 - c). WHENEVER THERE IS AN OVER VOLTAGE SHUT DOWN.
3. 18-50VDC INPUT.
4. TOTAL OUTPUT POWER NOT TO EXCEED 250 WATTS.



Nominal Input Voltage	24/28VDC, 15A max.
Operational Input Voltage Range	18 - 50VDC, 250 Watts Output Designed to operate with input power per Mil-Std-704D, E & F
Inrush Current	Less than 5 msec. 30 amperes @ 28 VDC.
Fusing	25 Ampere, 125 VDC, internal ceramic body fuse.
Hold up time	1msec minimum after loss of DC Input at full load and nominal input.
Efficiency	70% typical
Turn on time	1 sec max. from power up. All output voltages come up within 10msec of each other.
Line and Load Regulation	±2% over DC input range and 0 to 100% load change.
Minimum Load	10% minimum load required on V1 for V2 to regulate to full load. No minimum load required on V2-V4.
Ripple & Noise	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.
Transient Response	Output maximum excursion of ±5% for 50% load step. Recovery less than 500 µsec.
Overshoot/Undershoot	No turn-on or turn-off overshoot.
Output Isolation	Isolated from chassis ground, 50Vdc.
Input/Output Isolation	1500 VDC from input to both chassis/outputs. SELV construction.
Reverse Voltage	Protected against reverse voltage to supply current rating.
Overvoltage Protection	Shutdown at 130% of nominal Vout V1, V2, V3. V4 failsafe design. Recycle input power to reset.
Overtemperature Protection	Unit shuts down if overheated. Recycle DC to reset.

Current Limiting	All outputs short circuit protected with Shutdown protection. Recycle DC to reset.
Peak Output Current	Peak current can be delivered for a maximum period of 30 seconds.
Paralleling	Two or more supplies can be operated in parallel and will share V1/V2 current to within 10% of each other.
Remote Sense	Compensates for up to 0.5V total distribution voltage drop on the V1 & V2 outputs.
INH	Open to Run, Contact closure to return, turns off all outputs.
FAIL Signal	Normal logic '1' TTL signal which goes low whenever the V1, V2 outputs fail, an overtemperature condition, an over voltage shut down.
Cooling	Integral fans provide 50cfm of air flow.
Operating Temperature	-40°C to 50°C operating temperature with full load.
Stability	All outputs 0.1% for 8 hrs. after 30 minute warm-up.
Humidity	Up to 95% non-condensing.
Storage Temperature	-40°C to 85°C.
Size	5.00" x 2.50" x 9.40" Weight: 5 lbs.
EMC	Meets EN55022 Level A / FCC Class A conducted.
Safety	Designed to meet: UL 60950, CSA C22.2 No. 60950 & EN60950.
Common Options	Conformal coating (Acrylic or Paylene), ruggedization, increased energy storage & special output configurations. Consult factory.

SERIES BREAKDOWN: **GNX-251X1-DC**
 where X1= S for Single output, D for Dual output, T for Triple output or Q for Quad output