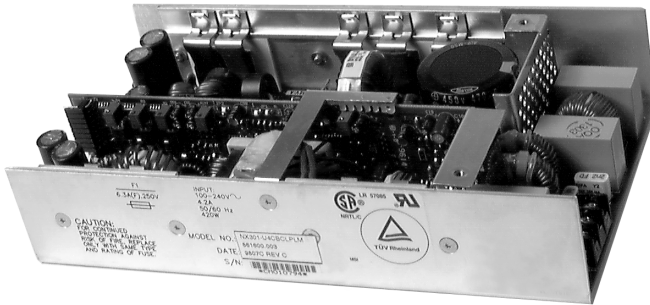


300 WATT DC/DC POWER SUPPLY

DNX301



FEATURES

- Fully Isolated Outputs
- Low Profile: 9" x 4.85" x 2.00"
- One, Two, Three and Four Output Models
- N+1 Current Sharing
- Optional Fan Mounted On Cover
- Active Inrush Current Limiting

DESCRIPTION

The DNX301 is a compact 300 watt, multiple output power supply. All outputs are fully isolated and regulated. Active current sharing circuitry on Output #1, together with control functions and alarm options, simplifies N+1 and redundant applications. Fan and disk drive applications are handled by the peak current ratings of the auxiliary outputs.

AGENCY APPROVALS



TÜV Rheinland

See "Safety" section on page 2 for more information

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Input Specifications

| Parameter | Conditions | Min | Typ | Max | Units |
|-------------------------|----------------------|-----|-----|-----|-------|
| Operating Range | DC | 36 | 48 | 72 | Vdc |
| Inrush Current Limiting | 36Vd | | | 25 | APK |
| | 72Vdc | | | 50 | APK |
| Efficiency | 48 VDC, at full load | | 70 | | % |

Remote Sense

Remote Sense is provided on Output #1 and will compensate for 0.7V of line drop. Remote Sense leads are protected against open, short and reversal.

Remote On/Off (Optional)

The power supply is turned on with a TTL logic '1' (or open) signal and turned off by a switch closure or TTL logic '0' referenced to (-) sense terminal. Consult the factory for other options.

Over Voltage Protection

Output #1: $6.5V \pm 0.5 V_{DC}$.

The power supply will latch off until AC power is cycled.

Over Current Protection

Individual current limit on all outputs. Automatic recovery upon fault removal.

Active Inrush Current Limiting

Inrush current is independent of ambient temperature.

Transient Response

The peak output voltage excursion will not exceed 2% and will recover within 1% in 200 μ sec for a 25% load step change.

Over Temperature Protection

Thermal switch turns off power supply if overheating occurs and automatically restarts.

Safety

Safety certified to UL/CUL to 1950, File Number E131694
TUV to EN60950/IEC950.

Cooling

The unit is designed to operate with 30 CFM of airflow.

Output Voltages and Maximum Rated Loads

| MODEL NUMBER | OUTPUT #1 | | OUTPUT #2 | | OUTPUT #3 | | OUTPUT #4 | |
|--------------|------------------|------------------|------------------|-----------------------------------|------------------|-----------------------------------|------------------|------------------|
| | V _{OUT} | I _{MAX} | V _{NOM} | I _{MAX} /I _{PK} | V _{NOM} | I _{MAX} /I _{PK} | V _{NOM} | I _{MAX} |
| DNX301-U3A | ±5V | 45A | ±12V | 8A/10A | ±12V | 8A/10A | - | - |
| DNX301-U3B | ±5V | 45A | ±15V | 8A/10A | ±15V | 8A/10A | - | - |
| DNX301-U4C | ±5V | 45A | ±12V | 8A/10A | ±12V | 8A/10A | ±5V | 3.0A |
| DNX301-U4D | ±5V | 45A | ±12V | 8A/10A | ±12V | 8A/10A | ±24V | 1.5A |
| DNX301-U4E | ±5V | 45A | ±12V | 8A/10A | ±12V | 8A/10A | ±12V | 3.0A |
| DNX301-U4F | ±5V | 45A | ±15V | 8A/10A | ±15V | 8A/10A | ±5V | 3.0A |
| DNX301-U4G | ±5V | 45A | ±15V | 8A/10A | ±15V | 8A/10A | ±24V | 1.5A |
| DNX301-U4H | ±5V | 45A | ±15V | 8A/10A | ±15V | 8A/10A | ±12V | 3.0A |

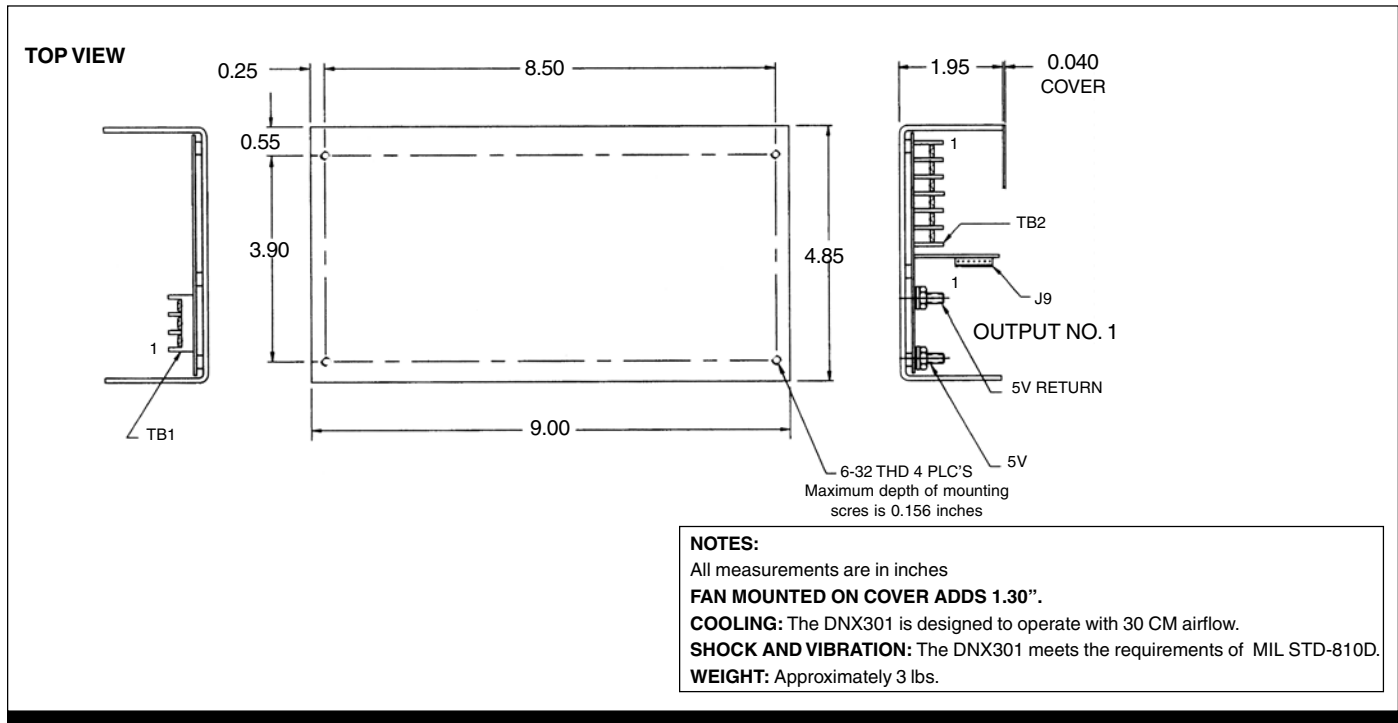
Note: Maximum current ratings are for 10sec maximum. Total power not to exceed 300 watts.

Output Specifications

| Parameter | Limits |
|-------------------|--------|
| Regulation | |
| Line | ±0.03% |
| Load | ±0.25% |
| Cross | ±0.05% |
| Minimum Load | |
| Output #1 | 3.0A |
| Auxiliary Outputs | 0.1A |

| Parameter | Conditions | Min | Typ | Max | Units |
|------------------------------|-------------------------|-----|-------|-----|-------|
| Voltage Adjustment Range | | | ±5 | | % |
| PARD | 20 MHz bandwidth | | | 1 | % P-P |
| Temperature | | | | | |
| Operating | | 0 | | 50 | °C |
| Storage | | -20 | | +85 | °C |
| Temperature Coefficient (Tc) | After half hour warm-up | | ±0.02 | | %/°C |

Mechanical



| Terminal Block 1 | | Terminal Block 2 | |
|------------------|----------|------------------|----------|
| POS | FUNCTION | POS | FUNCTION |
| 1 | DC + | 1 | -V2 |
| 2 | DC - | 2 | +V2 |
| 3 | Ground | 3 | -V3 |
| | | 4 | +V3 |
| | | 5 | -V4 |
| | | 6 | +V4 |

| J9 Connector Molex No. 22-28-1090 | |
|--------------------------------------|--------------------|
| PIN | FUNCTION |
| 1 | + Sense |
| 2 | - Sense |
| 3 | N/C |
| 4 | N/C |
| 5 | Start Up Sync. |
| 6 | N/C |
| 7 | Remote Inhibit |
| 8 | Current Share |
| 9 | Control Signal Rtn |