Murata Power Solutions

OBSOLETE PRODUCT
Contact Factory for Replacement Model

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

CE TÜV Rheinland c US

See “Safety” section on page 2 for more information

Technical enquiries - email: sales@murata-ps.com, **tel:** +1 508 339 3000

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 ± 0.5 VDC.
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 µsec 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.

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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 Adustment 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

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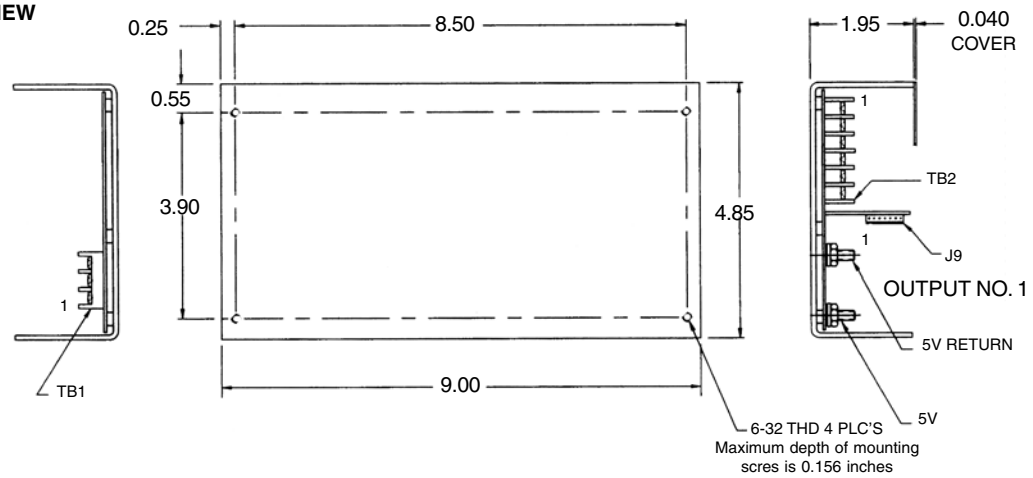
Mechanical

TOP VIEW



NOTES:
All measurements are in inches
FAN MOUNTED ON COVER ADDS 1.30".
COOLING: The DNX301 is designed to operate with 30 CM airflow.
SHOCK AND VIBRATION: The DNX301 meets the requirements of MIL STD-810D.
WEIGHT: Approximately 3 lbs.

Terminal Block 1	
POS	**FUNCTION**
1	DC +
2	DC -
3	Ground

Terminal Block 2	
POS	**FUNCTION**
1	-V2
2	+V2
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