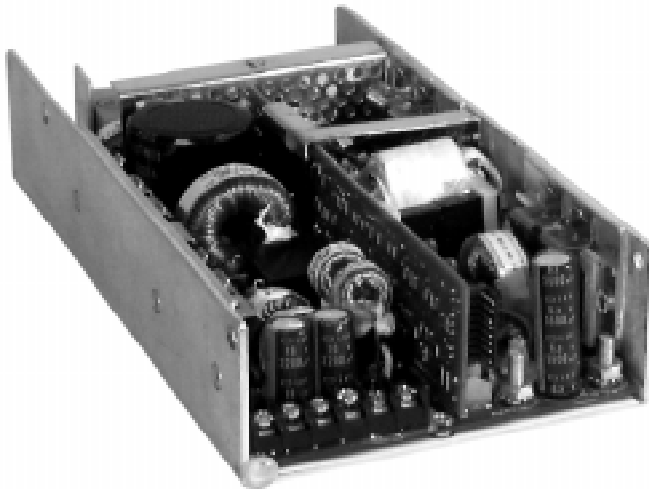


300 WATT AC/DC POWER SUPPLY

NT301



DESCRIPTION

The NT301 is a family of compact, fully featured, multiple-output, 300W power supplies with a 3.3V main output. These high current 3.3V output platforms will support requirements in which the logic has largely migrated from 5V to 3.3V. With active Power Factor Correction (PFC) to EN61000-3-2, wide-range input of 90-264VAC, EMI compliance to FCC and VDE Class B, and "CE" Marking, the NT301 series is ideal for systems targeting worldwide markets. The complement of standard features includes remote sense compensation, output voltage adjustment, active current sharing, remote inhibit, power fail warning, and thermal shutdown. All outputs are fully isolated and regulated. A complete array of output voltage configurations is available to handle a broad range of applications. An optional cover with fan is offered for environments in which system airflow is not provided.

FEATURES

- Active Power Factor Correction
- 3.3V Main Output
- Fully Isolated Outputs
- Low Profile: 9" x 4.85" x 2.00"
- One, Two, Three and Four Output Models
- N+1 Current Sharing
- FCC/VDE Class B EMI Filter Standard
- Optional Fan Mounted On Cover

AGENCY APPROVALS



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Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Operating Range	47-63Hz	90		264	VAC
Input Current	Nominal line, full load			6	A
Inrush Current	120VAC, 25°C, cold start 240VAC, 25°C, cold start			37 70	Apk Apk
Efficiency	Nominal line, full load		70		%
Holdup	Full load	35			msec
Power Factor ⁽¹⁾	Full load		0.99		

Notes: (1) Harmonic currents meet EN61000-3-2

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} /I _{PK}
NT301-U1A	± 3.3V	45A						
NT301-U2A	± 3.3V	45A	± 12V	8A/10A				
NT301-U2B	± 3.3V	45A	± 15V	8A/10A				
NT301-U3A	± 3.3V	45A	± 12V	8A/10A	± 12V	8A/10A	-	-
NT301-U3B	± 3.3V	45A	± 15V	8A/10A	± 15V	8A/10A	-	-
NT301-U4C	± 3.3V	45A	± 5V	8A/10A	± 12V	8A/10A	± 12V	3.0A
NT301-U4D	± 3.3V	45A	± 5V	8A/10A	± 12V	8A/10A	± 24V	1.5A
NT301-U4E	± 3.3V	45A	± 12V	8A/10A	± 12V	8A/10A	± 5V	3.0A
NT301-U4F	± 3.3V	45A	± 5V	8A/10A	± 15V	8A/10A	± 15V	3.0A
NT301-U4G	± 3.3V	45A	± 5V	8A/10A	± 15V	8A/10A	± 24V	1.5A
NT301-U4H	± 3.3V	45A	± 5V	8A/10A	± 15V	8A/10A	± 12V	3.0A
NT-301-U3N	± 3.3V	45A	± 5V	8A/10A	± 12V	8A/10A		

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

Output Specifications

Parameter	Conditions	Min	Typ	Max	Units
Output Power	All environmental and line conditions			300	Watts
Voltage Adjustment Range	Relative to nominal output voltage, all outputs		± 5		%
Output Regulation	Line			± 0.03	%
	Load			± 0.25	%
	Cross			± 0.05	%
Minimum Load	Output V1	3.0			A
	Auxiliaries	0.1			A
PARD	V1, at output terminals, 20MHz B/W			50	mVpk-pk
	Auxiliary Outputs			1	% pk-pk
Temperature Coefficient	0° to 50°C		± 0.02		%/°C

Environmental Specifications

Parameter	Conditions	Min	Typ	Max	Units
Ambient Temperature	Operating; Output de-rated linearly to 50% of rated capacity between 50°C and 70°C	0		+70	°C
	Non-operating	-20		+85	°C
Altitude	Operating			+10,000	Feet
	Non-operating			+50,000	Feet
Shock	Per MIL-STD-810D, Method 516.3, Procedure I				
Vibration	Per MIL-STD-810D, Method 514.3, Procedure I				
Cooling	The NT301 is designed to operate with 30CFM airflow.				

Product Features

Features	Characteristic
Remote Sense	500mV compensation, Output V1
Active Current Sharing	Single Wire; 1.5% of max rated load
Cover w/Integral Fan	Optional on all models
OVP	4.3V \pm 0.5V, Output V1, latching
Overcurrent Protection	All outputs individually current limited with automatic recovery
Thermal Shutdown	Automatic Restart
Output Isolation	All outputs are fully isolated
Power Fail Warning Signal (L)	Transition to Logic "0" at least 15msec before loss of output regulation
Remote Inhibit (L)	Logic "0" applied will inhibit output (referenced to Cntl Signal Rtn terminal)

Product Compliances

Approval	Characteristic
UL	UL1950 and UL1012, File No. 14675
CSA	C22.2 No. 234-M90, Level 6. File No. LR9070-154C
TUV	EN60950, License No. R9576031
FCC	Class B requirements for conducted emissions
CISPR 22	Class B requirements for conducted emissions
CE Mark	Low Voltage Directive

Ordering Information

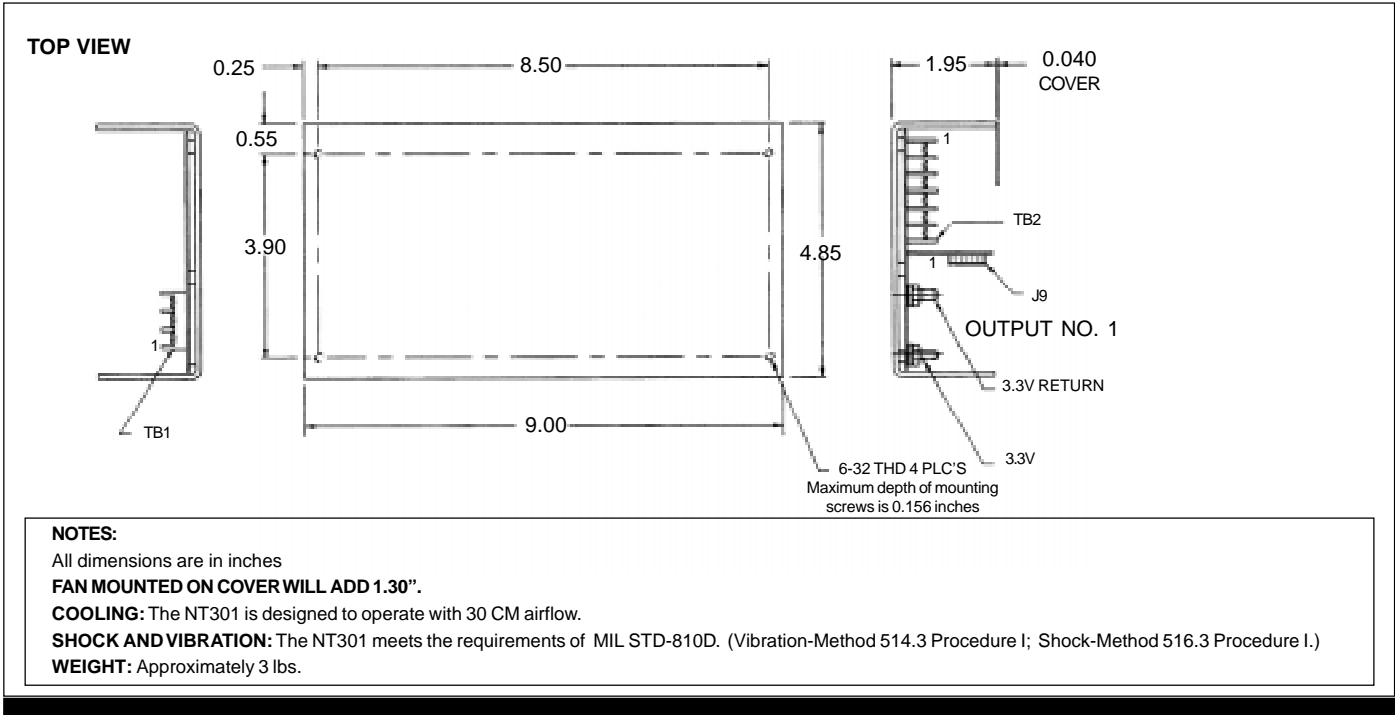
Model Designation ⁽¹⁾	
BASE MODEL	NT301
Chassis: "U" = unfinned, "M" = modified	
Number of Outputs (1,2,3 or 4)	
Output Voltage: See chart on facing page	
Input Filter: "B" designates Class B EMI filter(standard feature)	
Cover: "C" = plain cover, "F" = fan cover, "N" = no cover ⁽²⁾	
Remote Inhibit: "L" designates that Logic "0" applied inhibits output (standard configuration)	
Input: "P" designates Power Factor Corrected wide range (90-264VAC) input (standard feature)	
Power Fail Warning: "L" designates transition to Logic "0" upon loss of AC (standard configuration)	
Current Share: "M" designates active current sharing on output V1 (standard configuration)	

NOTES: (1) Standard configurations are shown; consult factory for other options

(2) Cover is required to meet EMI specifications

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Mechanical



Terminal Block 1		Terminal Block 2	
POS	FUNCTION	POS	FUNCTION
1	AC Line	1	-V2
2	AC Neutral	2	+V2
3	Ground	3	-V3
		4	+V3
		5	-V4
		6	+V4

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

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