C&D TECHNOLOGIES

Product Data Sheet

1000 WATT AC/DC POWER SUPPLY

TX1000

DESCRIPTION

The TX1000 Series of single-output, 1kW power supplies are fully featured for usage worldwide. With active Power Factor Correction (PFC) to EN61000-3-2, wide-range input of 90-264VAC, EMI compliance to FCC and CISPR 22, "CE" Mark, and immunity to EN61000-4, the TX1000 series is ready for global deployment. Standard features include remote sense compensation, output voltage adjustment, active current sharing, remote inhibit, power fail warning, DC OK signal, and thermal shutdown. A complete array of output voltages from 2.5 to 48VDC is available. The self-cooled 5" x 4.88" x 12" chassis provides industry-standard modularity that permits optimum flexibility in installation. An optional ORing diode is offered on all models greater than 5VDC models.

FEATURES

- **Harmonic Correction to EN61000-3-2**
- **Wide Range Input of 90-264VAC**
- **FCC / CISPR 22 Class A EMI Filtering**
- **Typical Power Factor of 0.99**
- **Active Current Sharing**
- **Self-Cooled 5"x 4.88"x 12" Chassis**
- **70-80% Efficiency**
- **Optional ORing Diode**
- **UL, CSA, and VDE compliant**
- **CE Marked**
- **EN61000-4 Immunity**

AGENCY APPROVALS

c UL us   CE   VDE

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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			12	A
Inrush Current	120VAC, 25^{0}C, cold start			80	Apk
	240VAC, 25^{0}C, cold start			160	Apk
Efficiency	Nominal line, full load	70	75	80	%
Holdup	Full load	20			msec
Power Factor (1)	Full load		0.99		

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

Output Voltages and Maximum Rated Loads

Model	Output Voltage	Output Current
TX10005AASLPLNH	5.0	200A
TX10005BASLPLNH(1)	12.0	84A
TX10005CASLPLNH(1)	15.0	67A
TX10005DASLPLNH(1)	18.0	56A
TX10005EASLPLNH(1)	24.0	42A
TX10005FASLPLNH(1)	28.0	36A
TX10005GASLPLNH(1)	36.0	28A
TX10005HASLPLNH(1)	48.0	21A
TX10005JASLPLNH(1)	20.0	50A
TXD10005KASLPLNH(1)	3.3	182A
TXD10005LASLPLNH(1)	2.5	200A

Notes: (1) Model specified without optional ORing diode; to specify the diode option, replace the letter "N" with the letter "D", no O-Ring diode on 5V models.

Output Specifications

Parameter	Conditions	Min	Typ	Max	Units
Output Power	All environmental and line conditions			1000	Watts
Voltage Adjustment Range	Relative to nominal output voltage		$\pm$5		%
Output Regulation	Line and load (each)			$\pm$0.2	%
Minimum Load		0			Amps
PARD	Measured at output terminals, 20MHz			1	% pk-pk
Temperature Coefficient	0^0 to 50^{0}C		$\pm$0.2		%/^{0}C

Environmental Specifications

Parameter	Conditions	Min	Typ	Max	Units
Ambient Temperature (Operating)	Output de-rated linearly to 50% of rated capacity between 50^{0}C and 70^{0}C	0		+70	^{0}C
Ambient Temperature	Non-operating	-50		+85	^{0}C
Altitude (Operating)		-200		+10,000	Feet
Altitude (Non-operating)		-200		+50,000	Feet
Shock	Per MIL-STD-810D, Method 516.3, Procedure II, in each axis, including NTSA drop test				
Vibration	Per MIL-STD-810D, Method 514.3, Procedure II, in each axis, including NTSA drop test				
Cooling	The TX1000 is provided with an internal cooling fan.				

Product Features

Features	Characteristic
Remote Sense	500mV compensation
Active Current Sharing	Single Wire; 5% tolerance if outputs are over 25% of rated load
ORing Diode	Optional on all models (not available on 5V model)
OVP	125% of nominal (±7.5%)
Thermal Shutdown	Automatic Restart
DC OK Signal	Logic “1” when output is within ±3% of nominal
Power Fail Warning Signal	Transition to Logic “0” at least 5msec before loss of output regulation
Remote Inhibit	Logic “0” applied will inhibit output (referenced to –Sense terminal)

Product Compliances

Approval	Characteristic
UL and cUL	UL1950, 3rd Edition (1)
VDE	EN60950
FCC	Class A requirements for conducted emissions
CISPR 22	Class A requirements for conducted emissions
EN61000-4-2	Electrostatic Discharge, Level 4
EN61000-4-4	Electrical Fast Transients, Level 3
EN61000-4-5	Input Surge Immunity, Level 3
EN61000-3-2	Harmonic Currents, Class A
CE Mark	Low Voltage Directive

Notes: (1) UL1950, 3rd Edition incorporates the requirements of CSA 1950.

Ordering Information

Model Designation

BASE MODEL **TX1000** _ _ _ _ _ _ _ _ _

Chassis: “5” = 5” x 4.88” x 12”; “M” = modified

Output Voltage: See Chart below

Input Filter: “A” designates Class A EMI filter

Fan: “S” designates Standard Fan

Remote Inhibit: “L” designates that Logic “0” applied inhibits output

“P” designates Active Input Power Factor Correction with widerange input voltage of 90-264 VAC

Power Fail Warning: “L” designates transition to Logic “0” upon loss of AC

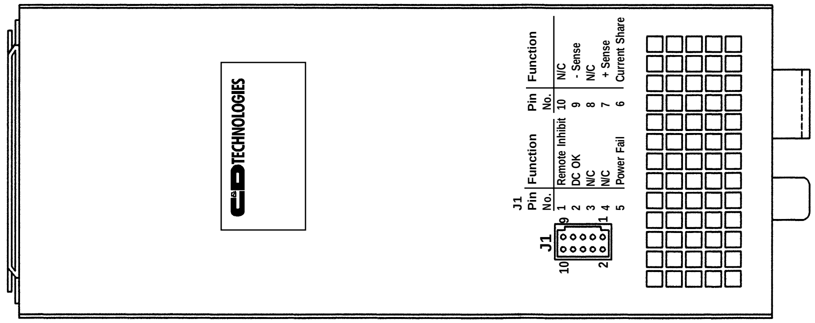
Output ORing diode: “N” = None; “D” = Diode Option

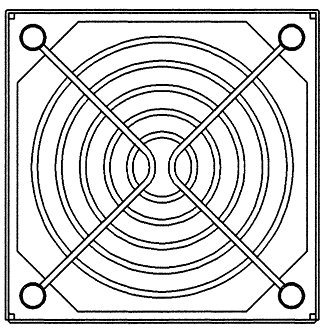
DC OK: “H” designates that Logic “1” indicates a DC OK condition

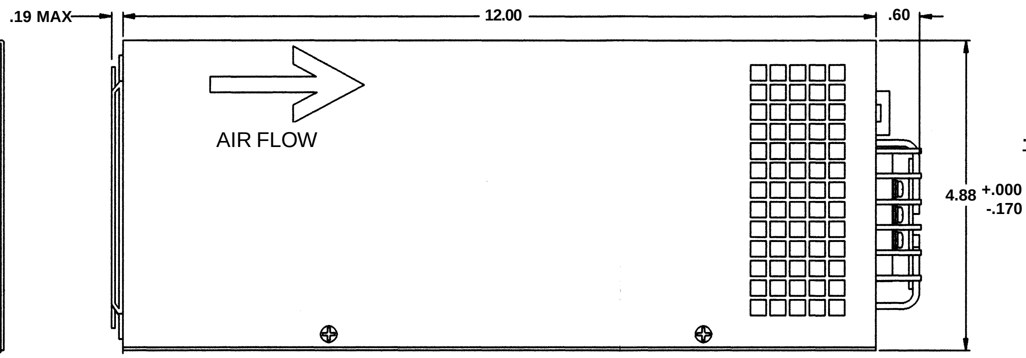
OUTPUT VOLTAGES

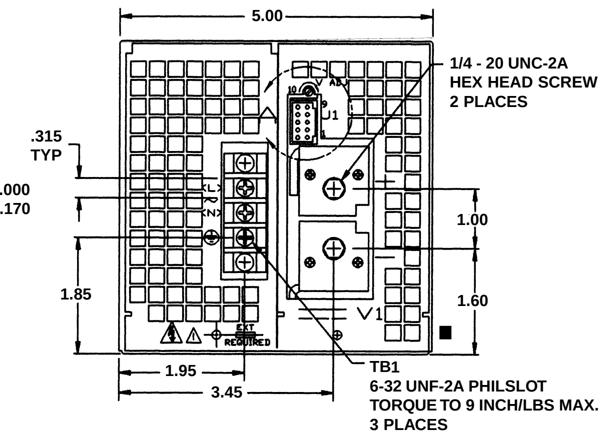
A = 5V	G = 36V
B = 12V	H = 48V
C = 15V	J = 20V
D = 18V	K = 3.3V
E = 24V	L = 2.5V
F = 28V	

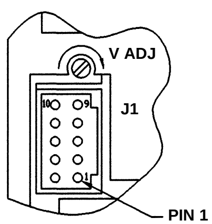
MECHANICAL

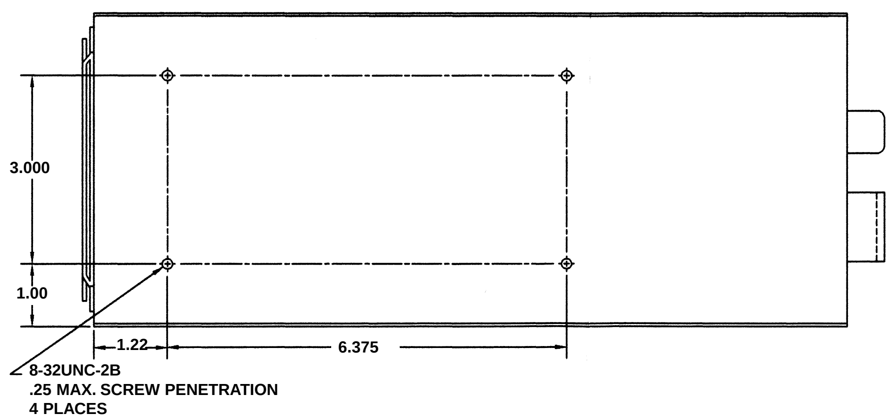












J1 CONNECTOR

AMP NO. 87579-2 OR EQUIVALENT

PIN NO.	FUNCTION
1	REMOTE INHIBIT
2	DC OK
3	N/C
4	N/C
5	POWER FAIL
6	CURRENT SHARE
7	+ SENSE
8	N/C
9	– SENSE
10	N/C