

## 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



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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°C, cold start |     |      | 80  | Apk   |
|                             | 240VAC, 25°C, cold start |     |      | 160 | Apk   |
| Efficiency                  | Nominal line, full load  | 70  | 75   | 80  | %     |
| Holdup                      | Full load                | 20  |      |     | msec  |
| Power Factor <sup>(1)</sup> | 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 <sup>(1)</sup>  | 12.0           | 84A            |
| TX10005CASLPLNH <sup>(1)</sup>  | 15.0           | 67A            |
| TX10005DASLPLNH <sup>(1)</sup>  | 18.0           | 56A            |
| TX10005EASLPLNH <sup>(1)</sup>  | 24.0           | 42A            |
| TX10005FASLPLNH <sup>(1)</sup>  | 28.0           | 36A            |
| TX10005GASLPLNH <sup>(1)</sup>  | 36.0           | 28A            |
| TX10005HASLPLNH <sup>(1)</sup>  | 48.0           | 21A            |
| TX10005JASLPLNH <sup>(1)</sup>  | 20.0           | 50A            |
| TXD10005KASLPLNH <sup>(1)</sup> | 3.3            | 182A           |
| TXD10005LASLPLNH <sup>(1)</sup> | 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    |     | ±5   |      | %       |
| Output Regulation        | Line and load (each)                  |     |      | +0.2 | %       |
| Minimum Load             |                                       | 0   |      |      | Amps    |
| PARD                     | Measured at output terminals, 20MHz   |     |      | 1    | % pk-pk |
| Temperature Coefficient  | 0° to 50°C                            |     | ±0.2 |      | %/°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    |
| Ambient Temperature             | Non-operating  | -50  |     | +85     | °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 ( $\pm 7.5\%$ )   |
| Thermal Shutdown          | Automatic Restart   |
| DC OK Signal              | Logic "1" when output is within $\pm 3\%$ 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, 3 <sup>rd</sup> Edition <sup>(1)</sup> |
| 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, 3<sup>rd</sup> Edition incorporates the requirements of CSA 1950.

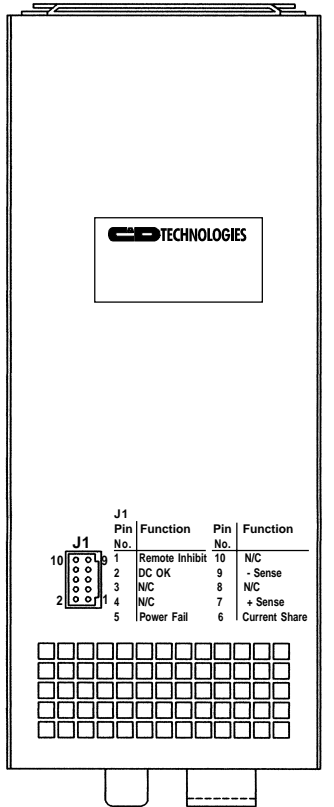
## Ordering Information

| Model Designation  |               |
|--|---------------|
| <b>BASE MODEL</b>  | <b>TX1000</b> |
| 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                               |               |

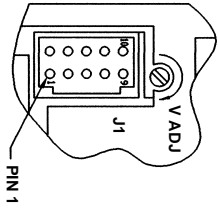
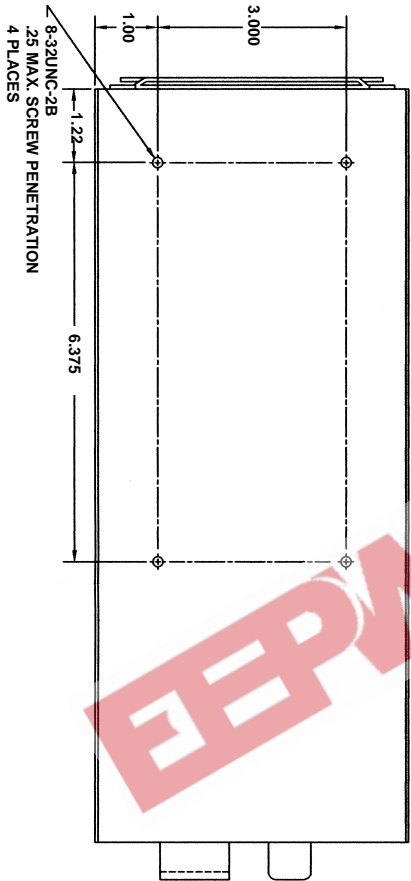
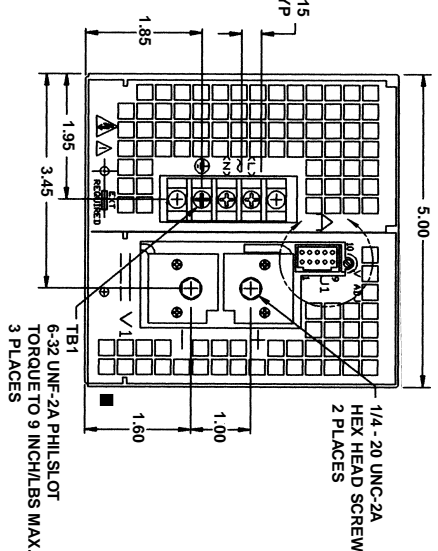
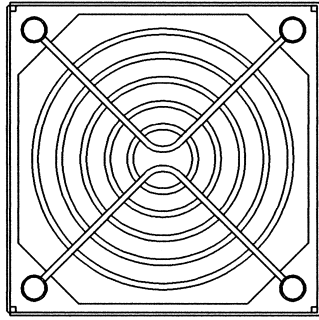
### OUTPUT VOLTAGES

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

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| J1 Pin No. | Function       | Pin No. | Function      |
|------------|----------------|---------|---------------|
| 1          | Remote Inhibit | 10      | N/C           |
| 2          | DC OK          | 9       | - Sense       |
| 3          | N/C            | 8       | N/C           |
| 4          | N/C            | 7       | + Sense       |
| 5          | Power Fail     | 6       | Current Share |



**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            |