## TECHNOLOGY DYNAMICS INC.

# TD RSP-BX-3000 SERIES 3000 WATT RUGGED INDUSTRIAL SWITCHING POWER SUPPLIES

17.63" x 10" x 6.60" SHOCK ISOLATED, RUGGED PACKAGE

#### **APPLICATIONS**

The TD RSP-BX-3000 series of Rugged AC-DC power supplies provides output power to 3000 watts. Rugged construction and superior quality make this power supply ideal for harsh environment applications. Available in standard, modified or fully custom configurations, for industrial, mining, commercial, COTS, ruggedized and Military applications.

#### STANDARD FEATURES

- High Efficiency Up to 90%
- Active PFC for EN61000-3-2, -3 PF>0.95%
- Built In DC Fan for Cooling
- Current Share Function
- AC & DC Good Signals
- Remote ON/OFF & Remote Sense Functions
- 12V/100mA Auxiliary Output

### **AVAILABLE OPTIONS**

- Parallel Operation
- ORing Diode for Redundant Operation
- Ruggedized for Shock & Vibration
- 400Hz Operation
- Conformal Coating

#### **SAFETY AND EMISSIONS**

- Designed to meet UL/cUL60950-1
- Designed to meet TUV EN60950-1
- Designed to meet CB Report (IEC 60950-1)
- Designed to meet CE Mark (LVD)
- Designed to meet EN55022 Class B (CISPR 22 B)



#### **SPECIFICATIONS**

#### **INPUT SPECIFICATIONS:**

Input: AC Input Range 180-264VAC/254-370VDC

Input Frequency: 47-63Hz

Inrush Current: 60A at 230VAC (cold start)
Input Current: 20A/180VAC,16A/230VAC

Efficiency: 86-90% typical (depending on output model)

Hold-up time: 10ms at full load (minimum)

Leakage Current: <2.0 mA maximum @ 240 VAC

Harmonics: EN 61000-3-2, -3 Class D Compliant (0.99 PF Typical)

#### **OUTPUT SPECIFICATIONS**

Adjustment Range: ± 10% (minimum)

Minimum Load: none

Regulation: Line  $\pm 0.5\%$  Load  $\pm 0.5\%$ 

Ripple/Noise: 150 - 200 mV peak to peak maximum (20 MHz) Set Point Accuracy:  $\pm 1\%$  (except  $5\text{V} = \pm 2\%$ ) (maximum)

Output voltage adj: ±10% minimum

Overcurrent Protection: 100-112% of rated output power.

Overlvoltage Protection: 115 -150% of V1 nominal

Overtemperature Protection: Heatsink Temp 90°C ± 5°C Auto Recovery.

#### **ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature:  $-20^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ . Storage Temperature:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  max

Cooling: Internal ball bearing DC fan Humidity: 20-90% RH non condensing

Vibration: 10 - 500Hz, 2G 10 min / 1cycle for 60 min (3 axes)

Shock: 20 G Peak Acceleration Weight: Approx.: 22 LBS Size: 17.63" x 10" x 6.60"



## **MODEL SELECTION**

MODEL NUMBER	VOLTAGE	CURRENT
TD RSP-BX-3000-12	12V	200A
TD RSP-BX-3000-24	24V	125A
TD RSP-BX-3000-28	28V	107A
TD RSP-BX-3000-48	48V	62A

NOTE: OTHER VOLTAGES & CURRENTS AVAILABLE. CONSULT THE FACTORY.

# **OPTION DESIGNATIONS**

- ORD	Redundant Operation
- PAR	Parallel Operation
- CC	Conformal Coating
- MIL	Ruggedized/Militarized
- 400Hz	400Hz Operation

# **MECHANICAL OUTLINE**

