

## **XTCPDC-RK SERIES SINGLE OUTPUT DC TO DC CONVERTER 400-1.000 Watts - RACK MOUNTED RUGGED HIGH POWER**

### **APPLICATIONS**

Technology Dynamics Inc. designs, develops and manufactures DC-DC Converters and is widely acknowledged as an industry leader in distributed power application and produces a wide range of DC-DC Converters. These DC-DC Converters are renowned for their outstanding performance, high reliability and cost effectiveness. Technology Dynamics Inc. DC-DC Converters are used extensively by OEMs and system integrators in a wide range of applications for the Commercial, Rugged Industrial and Military markets.

### **STANDARD FEATURES**

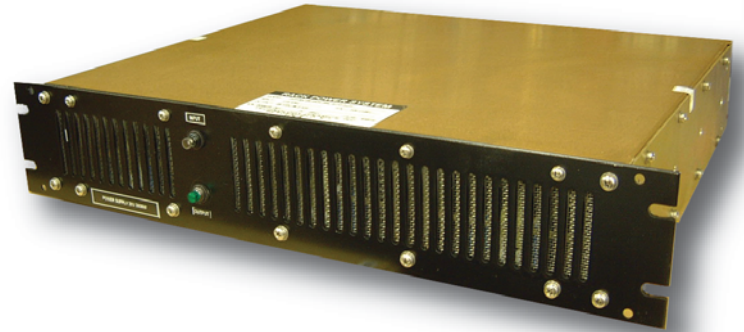
- Compact, Light Weight, Rack Mount
- Tightly Regulated Output
- OV/OL/OT Protected
- $\pm 5\%$  Output Adjustment
- LED Indicator
- Terminal Block Input/Output
- MTBF > 150,000 Hours
- Internal Fan
- "Rugged" Construction

### **AVAILABLE OPTIONS**

- Redundant Operation (N+1)
- Panel Mount
- Ruggedized For Severe Environment
- Hot Pluggable in a 3.5" High Rack
- Low Voltage Battery Disconnect. (LVBD) for Battery Back-Up Operation
- Conformal Coating (Rich Humidity)

### **SAFETY AND EMISSIONS**

- Meets FFC DOC. 20780 LEV. A
- Meets VDE 0871/6.78 LEV. A
- Designed to meet UL1950, CSA 22.2



### **SPECIFICATIONS**

#### **INPUT SPECIFICATIONS**

Input: 125 VDC  
Efficiency: 85% Typical  
Inrush Current: 40A MAX  $\frac{1}{2}$  Cycle

#### **OUTPUT SPECIFICATIONS**

Voltage Adjustment:  $\pm 5\%$   
Line Regulation:  $\pm .3\%$   
Load Regulation:  $\pm 2\%$   
Hold Up Time: 20 mS Min.  
Set Point Accuracy:  $\pm 1\%$  (except 5V= $\pm 2\%$ ) (maximum)  
Protections: Overcurrent, Overvoltage, Overtemperature

#### **ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature:  $-20^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ . Derate to 50% at  $+70^{\circ}\text{C}$   
Storage Temperature:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  max Relative Humidity  
Cooling: External Ball Bearing DC Fan  
Humidity: 20-90% RH Non Condensing  
Vibration: 10-500Hz, 2G 10min/1Cycle for 60 min (3 axes)  
Shock: 20G Peak Acceleration  
Weight: ~ 20 Lb. (1 module)  
Size: 19" x 3.5" x 14"



**NSF-ISR**

Registered  
to ISO 9001

## MODEL SELECTION

400 WATTS			600 WATTS		1000 WATTS	
Model	Maximum Current (ADC)	Nominal Voltage (VDC)	Model	Maximum Current (ADC)	Model	Maximum Current (ADC)
XTCPDC-RK-12-34	12V	34A	XTCPDC-RK-12-50	50A	Consult Factory	
XTCPDC-RK-24-17	24V	17A	XTCPDC-RK-24-25	25A	XTCPDC-RK-24-41	41A
XTCPDC-RK-48-8	48V	8A	XTCPDC-RK-48-12	12A	XTCPDC-RK-48-20	20A

## OPTION DESIGNATIONS

-ORD	REDUNDANT OPERATION
-PM	PANEL MOUNT
-MIL	RUGGEDIZED/MILITARIZED
-HSP	HOT SWAP
-LVBD	BATTERY BACK-UP
-CC	CONFORMAL COATING

### Low Voltage Battery Disconnect

The LVBD module adds a new dimension to battery back-up power supplies. The power supply simultaneously charges the battery and powers the load. If the input power fails, the battery continues to support the load, thereby protecting the battery from the damaging effects of complete discharge.

## MECHANICAL OUTLINE

