APPLIED POWER CONVERSION Division of TECHNOLOGY DYNAMICS INC.

# TCPDC SERIES SINGLE OUTPUT DC TO DC CONVERTER 400-1000 Watts - 2.6" x 5.0" x 11.5" RUGGED HIGH POWER

## **APPLICATIONS**

The TCPDC family of power supplies was designed to satisfy a market for low cost, high reliability applications. The TCPDC is especially suitable for critical systems in remote locations, severe environment, redundant (N+1) or battery back-up uninterruptable operation.

This versatile design is loaded with options, making it particularly suitable to telecommunication applications.

### **STANDARD FEATURES**

- · Compact, Light Weight
- Tightly Regulated Output
- OV/OL/OT Protected
- ±5% Output Adjustment
- LED Indicator (Each Module):Output Power Good
- Remote Inhibit
- Input via D-Sub Connector
- MTBF > 150,000 Hours
- Internal Fan
- "Rugged" Construction

## **AVAILABLE OPTIONS**

- Redundant Operation (N+1)
- Forced Current Sharing
- Ruggedized For Severe Environment
- Hot Pluggable in a 3.5" High Rack
- Low Voltage Battery Disconnect. (LVBD) for Battery Back-Up Opperation
- Conformal Coating (High 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: 22-32 VDC (PREFIX P) 42-56VDC (PREFIX Q) Efficiency: 85% Typical DC Current: (22V/400W) 22A (22V/600W) 32A (42V/400W) 11A (42V/600W) 17A Inrush Current: 40A MAX ½ Cycle

#### OUTPUT SPECIFICATIONS

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

#### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -20°C to +50°C. Derate to 50% at +70°C Storage Temperature: -40°C to +85°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: 6.6 LBS Size: 11.5" x 5" x 2.62"



Design Excellence since 1976!

## **MODEL SELECTION**

400 WATTS			600 WATTS		1000 WATTS	
Model	Nominal Voltage (VDC)	Maximum Current (ADC)	Model	Maximum Current (ADC)	Model	Maximum Current (ADC)
TCPDC-5-60	3.3/5V	60A	TCPDC-5-80	80A	Consult Factory	
TCPDC-12-34	12V	34A	TCPDC-12-50	50A		
TCPDC-15-27	15V	27A	TCPDC-15-40	40A		
TCPDC-24-17	24V	17A	TCPDC-24-25	25A	TCPDC-24-41	41A
TCPDC-36-11	36V	11A	TCPDC-36-16	16A	Consult Factory	
TCPDC-48-8	48V	8A	TCPDC-48-12	12A	TCPDC-48-20	20A

NOTE: PREFIX "P" = 22-32 VDC INPUT

NOTE: PREFIX "Q" = 42-56 VDC INPUT

## **OPTION DESIGNATIONS**

-ORD	REDUNDANT OPERATION		
-FCS	FORCED CURRENT SHARING		
-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**



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SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

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