

XPTCPDC SERIES
400-1000 WATT SINGLE OUTPUT
DC-DC CONVERTER
2.66" x 4.75" x 11.50"
RUGGED, HIGH POWER

APPLICATIONS

The XPTCPDC series 400-1000W DC-DC Converter provides highly regulated output power from 400-1000 watts. Rugged construction and superior quality make this DC-DC converter ideal for harsh environment applications. Available in standard, modified or fully custom configurations, for industrial, commercial, COTS, Ruggedized and Military applications.

STANDARD FEATURES

- Full Range Input
- Low Noise and Ripple
- Built In DC Fan For Cooling
- Current Share Function
- DC Good Signal
- Remote On/Off & Remote Sense Functions
- Rugged Construction
- High Reliability/Superior Quality

AVAILABLE OPTIONS

- Hot Swap
- Parallel Operation
- ORing Diode for Redundant Operation
- Rack / Panel Mount
- Ruggedized for shock & vibration
- Conformal Coating
- LVBD (Battery Back-Up)

SAFETY AND EMISSIONS

- Designed to meet UL/cUL60950-1
- Designed to meet TUV EN60950-1
- Designed to meet EN55022 (Class A)
- Designed to meet EN 55024
- Designed to meet EN61000-3-2-3



SPECIFICATIONS

INPUT SPECIFICATIONS:

Input: 125VDC (120-132VDC)
Efficiency: 85 typical (depending on output model)
Hold-up time: 16ms at full load (minimum)

OUTPUT SPECIFICATIONS

Adjustment Range: $\pm 10\%$ (minimum)
Minimum Load: none
Regulation: Line $\pm 0.5\%$ Load $\pm 0.5\%$ Typical
Ripple/Noise: 150mV peak to peak maximum (20 MHz)
Output voltage adj: $\pm 10\%$ minimum
Overcurrent Protection: 105-125% automatic recovery Constant Current
Overvoltage Protection: 115-140% of V1 nominal
Overtemperature Protection: Heatsink Temp. $90^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Auto Recovery

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: 0°C to $+50^{\circ}\text{C}$. Derate to 50% at $+70^{\circ}\text{C}$
Storage Temperature: -40°C to $+85^{\circ}\text{C}$ max 95% Relative Humidity
Cooling: Internal ball bearing DC fan
Humidity: 20-90% RH non condensing
Vibration: 10-500Hz, 2G 10min/1cycle for 60 min (3 axes)(Standard Unit)
Shock: 20G Peak Acceleration (Standard Unit)
Weight: Approx: 6.6 LBS
Size: 2.66" x 4.75" x 11.50"

MODEL SELECTION

400 WATTS		600 WATTS		800 WATTS		1000 WATTS	
Model	Output	Model	Output	Model	Output	Model	Output
XPTCPDC - 5 - 80	5V@80A	XPTCPDC-5-100	5V@100A	N/A	N/A	Consult Factory	
XPTCPDC - 12 - 34	12V@34A	XPTCPDC - 12 - 50	12V@50A	XPTCPDC - 12 - 66	12V@66A		
XPTCPDC - 15 - 27	15V@27A	XPTCPDC - 15 - 40	15V@40A	XPTCPDC - 15 - 53	15V@53A		
XPTCPDC - 24 - 17	24V@17A	XPTCPDC - 24 - 25	24V@25A	XPTCPDC - 24 - 33	24V@33A	XPTCPDC - 24 - 41	24V@41A
XPTCPDC - 28 - 14	28V@14A	XPTCPDC - 28 - 20	28V@20A	XPTCPDC - 28 - 28	28V@28A	XPTCPDC - 28 - 35	28V@35A
XPTCPDC - 36 - 11	36V@11A	XPTCPDC - 36 - 16	36V@16A	XPTCPDC - 36 - 22	36V@22A	XPTCPDC - 36 - 27	36V@27A
XPTCPDC - 48 - 8	48V@8A	XPTCPDC - 48 - 12	48V@12A	XPTCPDC - 48 - 16	48V@16A	XPTCPDC - 48 - 20	48V@20A

OPTION DESIGNATIONS

-HSP	HOT SWAP
-ORD	REDUNDANT OPERATION (ORING DIODE)
-RK	RACK MOUNT
-MIL	RUGGEDIZED/MILITARIZED
-CC	CONFORMAL COATING
-LVBD	BATTERY BACK-UP
-PAR	PARALLEL OPERATION
-PNL	PANEL MOUNT

Low Voltage Battery Disconnect

The LVBD module adds a new dimension to battery backup power supplies. The power supply simultaneously charges the battery and powers the load. If the AC power fails, the battery continues to support the load. However, when the battery voltage drops below a predetermined level, the LVBD module disconnects the battery from the load, thereby protecting the battery from the damaging effects of complete discharge.

MECHANICAL OUTLINE

