

## TSD-1000 SERIES 1000 WATT SINGLE OUTPUT DC-DC CONVERTER 11.61" x 5" x 1.61"

### APPLICATIONS

The TSD -1000 series of DC-DC converter provides highly regulated output power to 1000 watts. Rugged construction and superior quality make this DC-DC Converter ideal for harsh environment application. Available in standard, modified or fully custom configuration, for Industrial, Commercial, COTS, Ruggedized and Military application.

### STANDARD FEATURES

- Low Profile 1U
- High Power Density
- 2000 VAC I/O Isolation
- Remote ON/OFF Control
- Forced Air Cooling, Internal Fan
- 12V, 25A Aux Output
- OV, OL, OT Protection
- Remote Sense

### AVAILABLE OPTIONS

- Hot Swap
- Parallel Operation
- ORing Diode for Redundant Operation
- Rack/Panel Mount
- Ruggedized For Shock & Vibration
- Conformal Coating

### SAFETY AND EMISSIONS

- IEC 60950-1
- EN 55022 (CISPR22) Compliance
- EN 61000-4-2, 61000-4-3, 61000-4-4  
61000-4-6, 61000-4-8 ENV 50204  
Light Industrial Level, Criteria A  
CB CE



### SPECIFICATIONS

#### INPUT SPECIFICATIONS:

Input: 19-72 VDC/ 72-144 VDC Depending On Model  
Rise Time: 500 ms, 50 ms At Full Load  
DC Current: 23.5 A/ 48 VDC 11.6A/96 VDC  
Efficiency: 89-92% Typical (Depending On Output Model)  
Hold-Up Time: 16 ms At Full Load (Minimum)

#### OUTPUT SPECIFICATIONS

Output Adjustment Range: -5% To +25%  
Minimum Load: none  
Regulation: Line  $\pm$  0.5% Load  $\pm$  0.5%  
Ripple/Noise: 150mV peak to peak maximum (20 MHz)  
Overcurrent Protection: 105-125% automatic recovery Constant Current  
Overvoltage Protection: 115-140% of V1 nominal  
Overtemperature Protection: Heatsink Temp. 85°C  $\pm$  5°C Auto Recovery

#### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -20°C to +50°C. Derate to 50% at +70°C  
Storage Temperature: -40°C to +85°C max. 95% Relative Humidity  
Cooling: Internal Ball Bearing DC Fan  
Humidity: 20-90% RH Non Condensing  
Vibration: 10-500Hz, 2G 10 min./1 Cycle for 60 min. (3 axes)  
Shock: 20G Peak Acceleration  
Weight: Approx. 4 lbs.  
Size: 11.61" x 5" x 1.61"



**NSF-ISR**

Registered  
to ISO 9001

# MODEL SELECTION

## 19-72 VDC INPUT

MODEL NUMBER	VOLTAGE	CURRENT
TSD-1000L-12	12V	60A
TSD-1000L-24	24V	40A
TSD-1000L-28	28V	37A
TSD-1000L-48	48V	21A

## 72-144 VDC INPUT

MODEL NUMBER	VOLTAGE	CURRENT
TSD-1000H-12	12V	60A
TSD-1000H-24	24V	40A
TSD-1000H-28	28V	37A
TSD-1000H-48	48V	21A

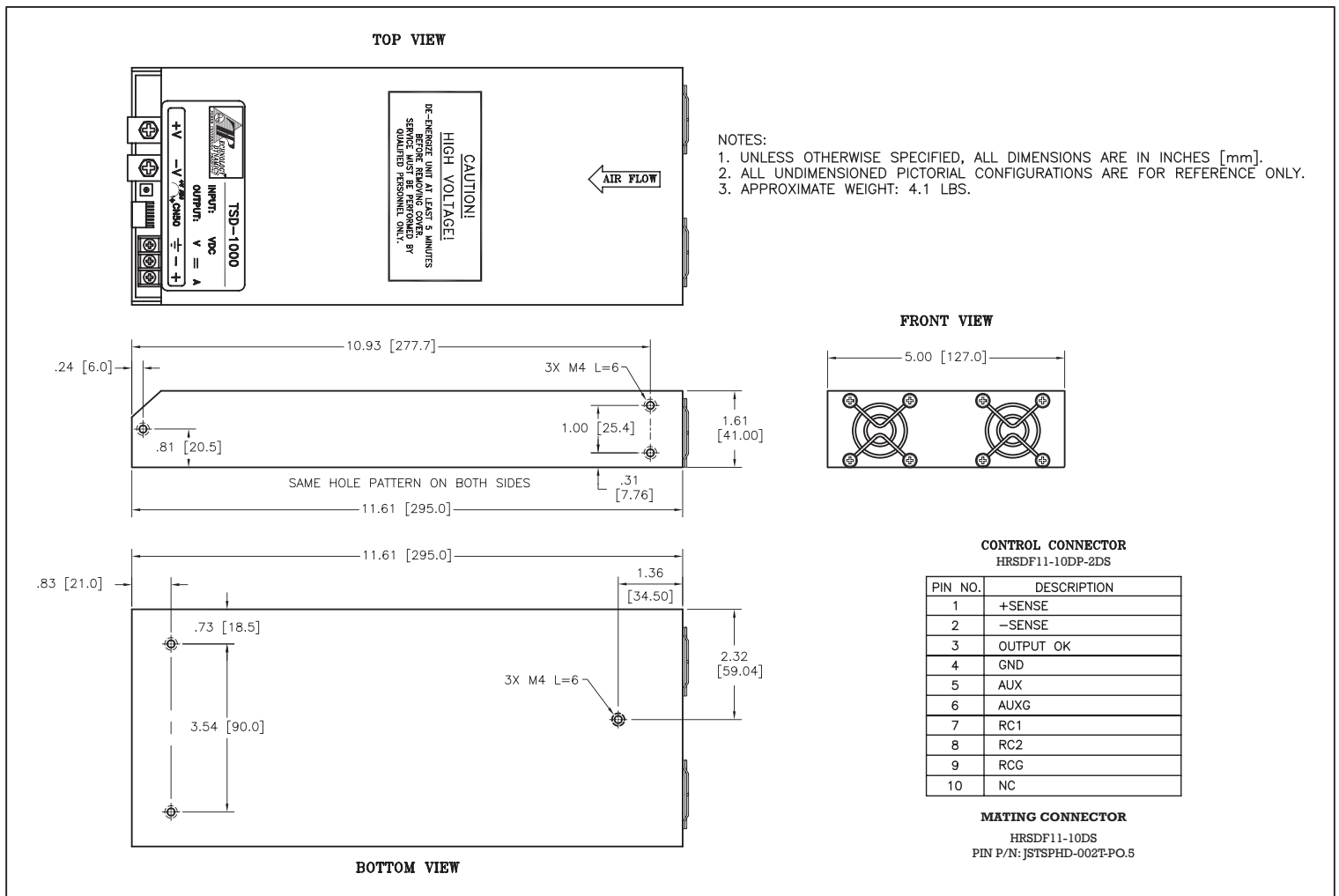
NOTE: OTHER VOLTAGES & CURRENTS AVAILABLE. CONSULT THE FACTORY.

## OPTION DESIGNATIONS

- HSP	Hot Swap
- ORD	Redundant Operation
- PAR	Parallel Operation
-CC	Conformal Coating

- MIL	Ruggedized/Militarized
- PNL	Panel Mount
-RK	Rack Mount

## MECHANICAL OUTLINE



SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

APPLIED POWER CONVERSION  
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