

## TDST-5000 SERIES 5000 WATT SINGLE OUTPUT SWITCHING POWER SUPPLIES

18" x 8.3" x 3.28"

POWER FACTOR CORRECTED, HIGH EFFICIENCY

### APPLICATIONS

The TDST-5000 Series of High Power Switching Power Supplies provides up to 5000 Watts of output power. Output Voltage and Current are adjustable making this Programmable Switching Power Supply ideal for Flexible, Reliable, Power Systems in OEM, Industrial and Laboratory applications. Available in stand alone or Rack Mount versions. Easily Customized or Modified to fit your exact needs.

### STANDARD FEATURES

- Wide AC Input Range
- High Efficiency
- Programmable output Voltage (20% ~ 120%)
- Programmable output Current (20% ~ 100%)
- Forced Current Sharing at parallel operation
- Power Factor Corrected
- Compact Size
- Forced Current Sharing
- Remote ON / OFF, Remote sense function
- Protection: OVP, OLP, OTP, SCP, Fan Failure
- Parallel Operation

### AVAILABLE OPTIONS

- Redundant Operation
- Rack / Panel Mount
- Ruggedized for Shock & Vibration
- 400Hz Operation
- Conformal Coating

### SAFETY AND EMISSIONS

- Meets UL/cUL60950-1; EN 60950-1
- Meets EN55022; EN61204-3; EN6
- Meets EN61000-3-2; EN61000-3-3
- Meets EN55024; EN61204-3
- Meets EN61000-6-1  
IEC 61000-4-2, 3, 4, 5, 6, 8, 11;



### SPECIFICATIONS

#### INPUT SPECIFICATIONS:

Input: AC Input Range 196-305VAC 3Ø Δ 340-530VAC 3Ø Y  
Input Frequency: 47-63Hz  
Inrush Current: 75A / 230VAC, 50 A / 400 VAC  
Input Current: 15A / 230VAC, 9A / 230VAC  
Efficiency: 88-91% typical (depending on output model)  
Hold-Up Time: 20ms at full load (minimum)  
Leakage Current: <3.5 mA maximum @ 305 VAC  
Harmonics: EN 61000-3-2, -3 Class D Compliant (0.95 PF Typical)

#### OUTPUT SPECIFICATIONS

Adjustment Range: 24V (23.5 - 28.8), 36V (35-43.2), 48V (47 - 57.6)  
Minimum Load: none  
Regulation: Line ±1% Load ±.5%  
Ripple/Noise: 150 mV peak to peak maximum (20 MHz)  
Overcurrent Protection: 105% of rated output power constant current limit.  
Overvoltage Protection: 120% Vout  
Overtemperature Protection: Heatsink Temp 85°C ± 5°C Auto Recovery.

#### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: - 30°C to + 50°C. (Full Output Power)  
Storage Temperature: -40°C to + 85°C max  
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: 20 G Peak Acceleration  
Weight: Approx.: 22 lbs  
Size: 18" x 8.3" x 3.28"



**NSF-ISR**

Registered  
to ISO 9001

# MODEL SELECTION

MODEL NUMBER	VOLTAGE	CURRENT
TDST-5000-24	24V	0 - 200A
TDST-5000-36	36V	0 - 138A
TDST-5000-48	48V	0 - 105A

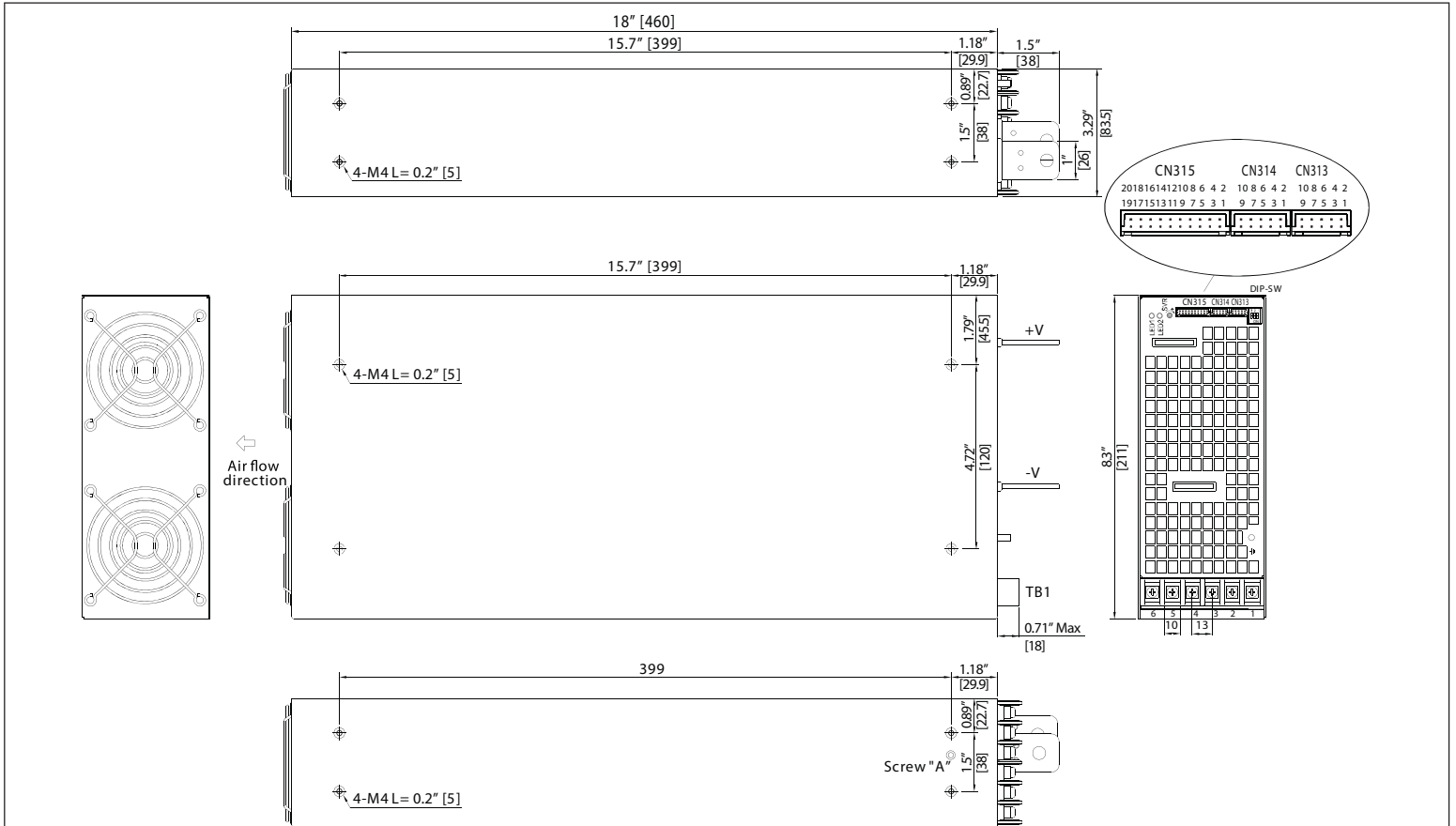
NOTE: OTHER VOLTAGES & CURRENTS AVAILABLE. CONSULT THE FACTORY.

## OPTION DESIGNATIONS

- ORD	Redundant Operation
- CC	Conformal Coating
- MIL	Ruggedized/Militarized

- PNL	Panel Mount
- RK	Rack Mount
- 400Hz	400 Hz Operation

## MECHANICAL OUTLINE



Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L1	4	AC/N2
2	AC/N1	5	AC/L3
3	AC/L2	6	AC/N3

Control Pin No. Assignment (CN313, CN314) : HRS DF11-10DP-2DS or equivalent

Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	CS-	6	PV+	HRS DF11-10DS or equivalent	HRS DF11-**SC or equivalent
2	CS+	7	PC-		
3	+S	8	RC-		
4	PV-	9	PC+		
5	-S	10	RC+		

Control Pin No. Assignment (CN315) : HRS DF11-20DP-2DS or equivalent

Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	12V-AUX	6	AC-FAIL2-GND	11	OTP2-GND	16	DC-OK1-GND	HRS DF11-20DS or equivalent	HRS DF11-**SC or equivalent
2	DC-OK2-GND	7	-V	12	FAN-FAIL2-GND	17	AC-FAIL1-GND		
3	GND-AUX	8	AC-FAIL2	13	OTP1	18	FAN-FAIL1-GND		
4	DC-OK2	9	OTP2	14	DC-OK1	19	AC-FAIL1		
5	+V	10	FAN-FAIL2	15	OTP1-GND	20	FAN-FAIL1		

DIP Switch Position Assignment (DIP-SW)

Position	Assignment	Position	Assignment
1	OLP mode	3	PV mode
2	PC mode		



DIP-SW PIN2:PC  
DIP-SW PIN3:PV

Unit: Inches and [mm]