

TDEK-3000 SERIES
3000 WATT SINGLE OUTPUT
PROGRAMMABLE SWITCHING POWER SUPPLIES
12.8" x 5.0" x 5.0"
UNIVERSAL AC INPUT, RS232 CONTROL

APPLICATIONS

The TDEK-3000 Series of Programmable Switching Power Supplies provides up to 3000 Watts of output power. Output Voltage and Current are adjustable from 0 to 105% 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

- Universal AC input / Full range
- Programmable output Voltage (0% ~ 105%)
- Programmable output Current (0% ~ 105%)
- Forced Current Sharing at parallel operation
- Constant current limit
- Selectable +5V / 0.5A or +9V / 0.3A aux. O/P
- Global control via RS232
- Power OK Signal
- 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 90-264VAC Single Phase
Note: 80% Load @ 90 VAC, 100% Load @ 100-264 VAC
Input Frequency: 47-63Hz
Inrush Current: 60A / 115VAC, 90 A / 230 VAC
Input Current: 38A / 115VAC, 18A / 230VAC
Efficiency: 88-93% typical (depending on output model)
Hold-up time: 14ms at full load (minimum)
Leakage Current: <1.0 mA maximum @ 240 VAC
Harmonics: EN 61000-3-2, -3 Class D Compliant (0.98 PF Typical)

OUTPUT SPECIFICATIONS

Adjustment Range: $\pm 5\%$ (minimum)
Minimum Load: none
Regulation: Line $\pm 1\%$ Load $\pm 1\%$
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 $\pm 5^\circ\text{C}$ Auto Recovery.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: - 20°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 / 1cycle for 60 min (3 axes)
Shock: 20 G Peak Acceleration
Weight: Approx.: 11.5 lbs
Size: 12.8" x 5.0" x 5.0"

MODEL SELECTION

MODEL NUMBER	VOLTAGE	CURRENT
TDEK-3000-12	12V	0 - 250A
TDEK-3000-15	15V	0 - 200A
TDEK-3000-24	24V	0 - 125A
TDEK-3000-28	28V	0 - 100A

MODEL NUMBER	VOLTAGE	CURRENT
TDEK-3000-36	36V	0 - 83A
TDEK-3000-48	48V	0 - 62A
TDEK-3000-60	60V	0 - 50A

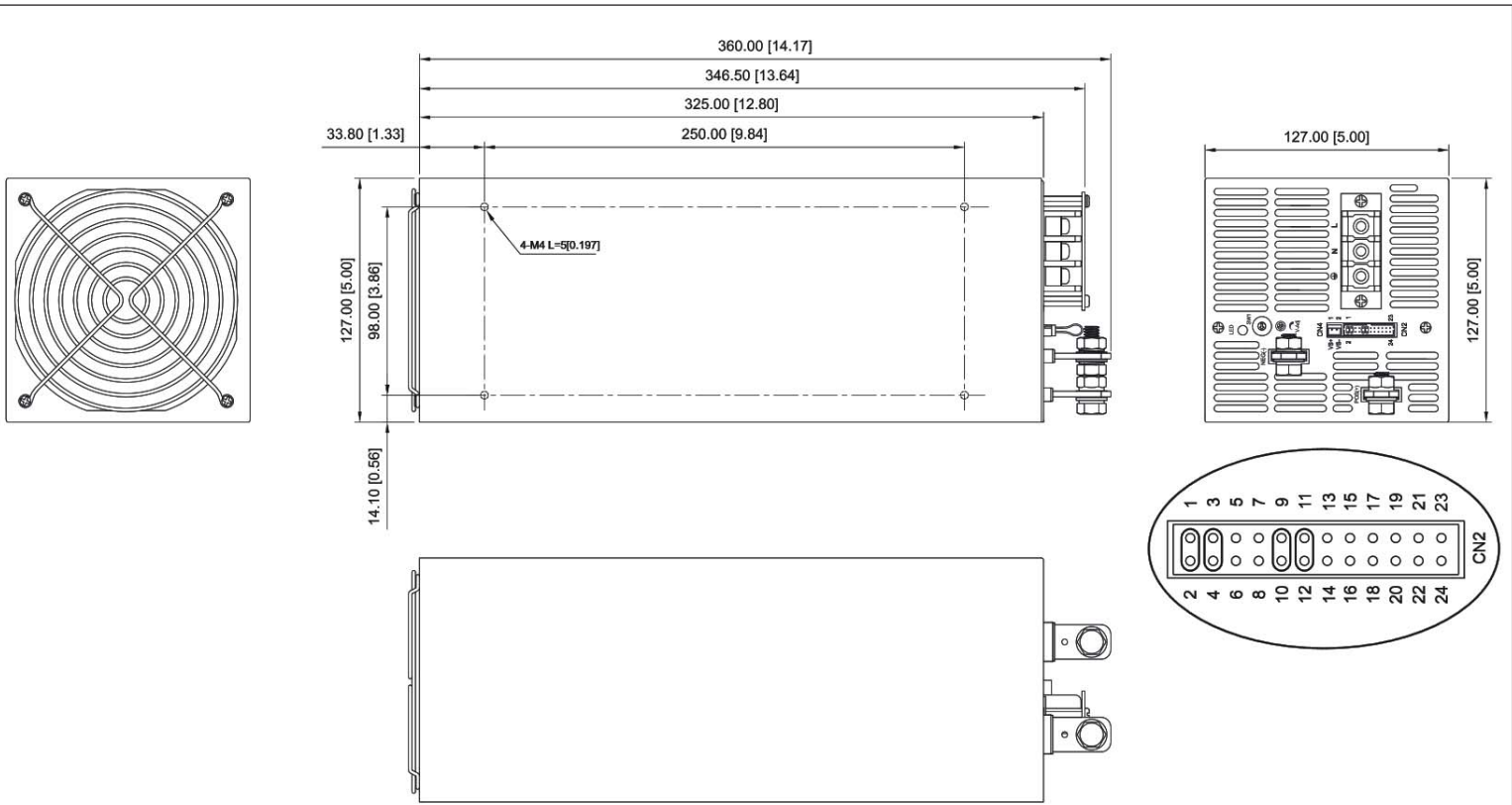
NOTE: OTHER VOLTAGES & CURRENTS AVAILABLE. CONSULT THE FACTORY.

OPTION DESIGNATIONS

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

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

MECHANICAL OUTLINE



AC Input Terminal Pin No. Assignment

Pin No.	Assignment
1	ACL
2	ACN
3	

CN2 Function Description

Pin No.	Function	Description	Pin No.	Function	Description	Mating Housing / Contact
1	VS+	Remote sense (+)	13	ACI	I Program	JST PHDR-24VS or equivalent
2	VO+	Positive output voltage	14	GND	Ground	
3	VS-	Remote sense (-)	15	VCI	V Program	
4	VO-	Negative output voltage	16	GND	Ground	
5	POK	Power OK	17	AUX	+5V / 0.5A or +9V / 0.3A Auxiliary power	
6	GND	Ground	18	GND	Ground	
7	PAR	Parallel operation current share	19	SCL	Serial Clock used in the I ² C interface	
8	VSET	Aux output setting	20	SDA	Serial Data used in the I ² C interface	
9	EN-	Inhibit ON/OFF (-)	21	AUX	+5V / 0.5A or +9V / 0.3A Auxiliary power	
10	GND	Ground	22	GND	Ground	
11	EN+	Inhibit ON/OFF (+)	23	NC.	For RS232 Receiver function	
12	AUX	+5V / 0.5A or +9V / 0.3A Auxiliary power	24	NC.	For RS232 Transmission function	