

### DESCRIPTION

The TMP30 series of AC/DC switching power adapters are capable of delivering 25 to 30 watt output power. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC320 inlet to mate with interchangeable cord for world-wide use. All models meet CISPR 11 and FCC class B emission limits, and are designed for medical applications.

### FEATURES

- 10 standard desktop models.
- Optional output connectors
- Optional on/off switch
- 100% burn-in at full rated load
- 90VAC to 264 VAC universal input
- Input surge current protection
- Overvoltage protection
- Overcurrent protection
- Short-circuit protection with auto-recovery

### INPUT SPECIFICATIONS

Input voltage :	85 to 264VAC
Input frequency:	47 to 63Hz
Input current :	0.80A ( rms ) for 115VAC 0.50A ( rms ) for 230VAC
Leakage current:	90µA max. @ 115VAC, 60Hz 150µA max. @ 230VAC, 50Hz

### OUTPUT SPECIFICATIONS

Output voltage/current :	See rating chart
Output power range :	30 watts maximum
Ripple and noise :	1% peak to peak maximum
Overvoltage protection :	Set at 112-132% of the higher extreme of its nominal output voltage
Overcurrent protection :	The output is protected to short circuit conditions
Temperature coefficient :	All outputs $\pm 0.04\%/^{\circ}\text{C}$ maximum
Transient response :	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500µs after a 25% step load change

### ENVIRONMENTAL SPECIFICATIONS

Operating temperature :	0°C to +70°C
Storage temperature :	-40°C to +85°C
Relative humidity :	5% to 95% non-condensing
Derating :	Derate from 100% at +50°C linearly to 50% at +70°C

### TMP30 SERIES



### Safety Standard Approvals :



UL 2601-1,  
CSA C22.2 No. 601.1



TÜV EN60601-1

### GENERAL SPECIFICATIONS

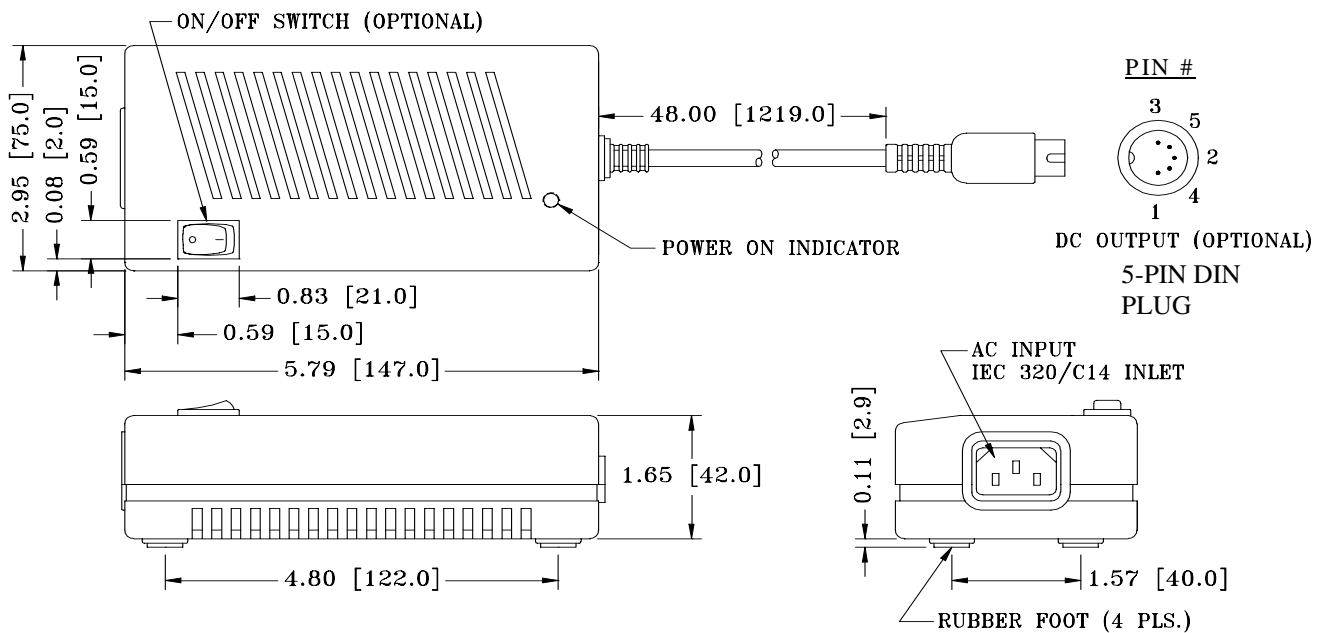
Switching frequency:	70KHz $\pm 5\text{KHz}$
Efficiency :	70% minimum on all models with output voltage $\geq 7\text{V}$ or 65% minimum on the others
Hold-up time:	20ms minimum at 115VAC
Line regulation:	$\pm 0.5\%$ maximum at full load
Inrush current:	15A @ 115VAC, or 30A @ 230VAC, at 25°C and cold start
Withstand voltage:	4000VAC from input to output 1500VAC from input to ground 500VAC from output to ground
MTBF:	400,000 hours minimum at full load at 25°C ambient, calculated per MIL-HDBK-217F
<b>EMC Performance (EN60601-1-2: 2001)</b>	
EN55011:	Class B conducted, class B radiated
FCC:	Class B conducted, class B radiated
VCCI:	Class B conducted, class B radiated
EN61000-3-2:	Harmonic distortion, class A and D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, $\pm 8\text{KV}$ air and $\pm 6\text{KV}$ contact
EN61000-4-3:	Radiated immunity, 3V/m for 80-2500MHz
EN61000-4-4:	Fast transient/burst, $\pm 2\text{KV}$
EN61000-4-5:	Surge, $\pm 1\text{KV}$ diff, $\pm 2\text{KV}$ com.
EN61000-4-6:	Conducted immunity, 3Vrms
EN61000-4-8:	Magnetic field immunity, 3A/m
EN61000-4-11:	Voltage dips, 30% reduction for 500ms, 60% reduction for 100ms and >95% reduction for 10ms

## OUTPUT VOLTAGE/CURRENT RATING CHART

Product No.	Vnom.	Imin.	Output I <sub>max.</sub>	Tol.	Maximum Output Power
TMP30-05	5-6V	0A	5.0A	5%	25W
TMP30-06	6-8V	0A	4.5A	5%	30W
TMP30-09	9-11V	0A	3.4A	2%	30W
TMP30-12	11-13V	0A	2.8A	2%	30W
TMP30-15	13-17V	0A	2.4A	2%	30W
TMP30-19	17-21V	0A	1.8A	2%	30W
TMP30-24	21-27V	0A	1.5A	2%	30W
TMP30-30	27-33V	0A	1.2A	2%	30W
TMP30-36	33-39V	0A	1.0A	2%	30W
TMP30-48	48V	0A	0.7A	2%	30W

NOTE: The output voltage can be adjusted by user in the stated range, or set by factory to a wanted value in the range upon the request of a user when ordering.

## MECHANICAL SPECIFICATIONS



### NOTES:

1. Dimensions shown in inch [mm]
2. Tolerance 0.02[0.5] maximum
3. Weight: 0.55Kgs (1.21Lbs.) approx.
4. Standard output connector is a 5-pin at 180° male DIN. Please contact TRUMPower for other connector options.

## PIN CHART

PIN				1	2	3	4	5
Product No.								
TMP30-05	TMP30-06	TMP30-09	TMP30-12	RETURN	RETURN	OUTPUT	RETURN	OUTPUT
TMP30-15	TMP30-19	TMP30-24	TMP30-30					
TMP30-36	TMP30-48							

Tumbler Technologies + TRUMPower

3350 Scott Blvd., Bldg. 13, Santa Clara, California 95054, USA

Phone: 408-988-6616 • Fax: 408-988-6622 • email: sales@trumpower.com • Website: www.TRUMPower.com