



**FEATURES**

- 85~264 VAC Wide Input Range
- Low Safety Ground Leakage Current
- Single, Dual, or Triple Outputs
- Input Surge Current Protection
- Medical & ITE Dual Approvals
- CEC & Energy Star Level IV Compliance



**INPUT SPECIFICATIONS**

Input Voltage Range .....	85~264 VAC
Input Frequency .....	47~63Hz
Input Current .....	1.22A rms @ 115 VAC
	0.68A rms @ 230 VAC
Inrush Current .....	50A @ 115 VAC or 100A
	@ 230 VAC, at 25°C cold start
Leakage Current .....	200µA max. @ 115 VAC, 60Hz

**OUTPUT SPECIFICATIONS**

Output Power Ratings .....	See rating table
Minimum Load .....	See rating table
Tolerance, Output 1 & 2 .....	±5%, except ±3% for 27V~50V
Output 3 .....	±10%
Ripple and Noise* .....	2% peak-to-peak max. for 3.3V, 5V
	1% peak-to-peak max. for 12V~48V
Overvoltage Protection .....	Output 1 only, set at 112-140% of its nominal output voltage
Overcurrent Protection .....	All outputs are protected to short-circuit conditions
Temperature Coefficient .....	±0.04%/°C max.
Transient Response .....	Max. excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change

\* Measured with 20MHz bandwidth at rated line voltage and output load ranges, with a 10µF tantalum capacitor in parallel with a 0.1µF ceramic capacitor in parallel across the output.

**GENERAL SPECIFICATIONS**

Switching Frequency .....	40~130KHz
Efficiency, Single .....	85% min. at full load
Dual/Triple .....	68~74% min. at full load
Hold-up Time .....	10ms at 110 VAC
Line Regulation .....	±0.5% max. at full load
Operating Temperature .....	0°C to +60°C
Derating .....	Derate from 100% at +40°C linearly to 50% at +60°C
Storage Temperature .....	-40°C to +85°C
Relative Humidity .....	5°C to +95°C non-condensing
Withstand Voltage .....	4000 VAC from input to output
	1500 VAC from input to ground
	500 VAC from output to ground
MTBF .....	150K hours minimum at full load, 25°C ambient, calculated per MIL-HDBK-217F

**STANDARDS & COMPLIANCES**

IEC 60601-1-2 .....	EMC & Immunity performance
EN 55011, EN 55022 .....	Class B, conducted & radiated
FCC, VCCI .....	Class B, conducted & radiated
EN 61000-3-2 .....	Harmonic distortion, Class A
EN 61000-3-3 .....	Line flicker
EN 61000-4-2 .....	ESD, ±8 KV air and ±6 KV contact
EN 61000-4-3 .....	Radiated immunity, 3V/m for 80~250MHz
EN 61000-4-4 .....	Fast transient/burst, ±2 KV
EN 61000-4-5 .....	Surge, ±1 KV diff., ±2 KV com.
EN 61000-4-6 .....	Conducted immunity, 3 Vrms
EN 61000-4-8 .....	Magnetic field immunity, 3A/m
EN 61000-4-11 .....	Voltage dip immunity, 30% reduction for 500ms, 60% reduction for 100ms, >95% reduction for 10ms
Safety Standards .....	UL 60601-1, EN 60601-1, CSA C22.2 No. 601.1, UL 60950-1, EN 60950-1, CSA C22.2 No. 60950-1
Agency Approvals .....	UL, cUL, TUV, CE (LVD), CB
Other Compliances .....	RoHS, CEC & Energy Star Level IV

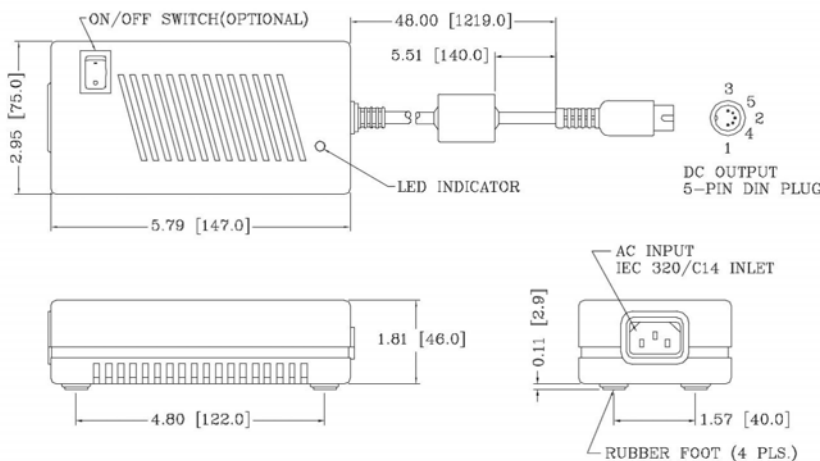
### MODELS LIST

Product No.	OUTPUT #1			OUTPUT #2			OUTPUT #3			Max. Output Power
	Voltage	Min. Current	Max. Current	Voltage	Min. Current	Max. Current	Voltage	Min. Current	Max. Current	
TMP60-SXX	11~13V	0A	5.46A	-	-	-	-	-	-	60W
TMP60-SXX	13~17V	0A	4.62A	-	-	-	-	-	-	60W
TMP60-SXX	17~21V	0A	3.53A	-	-	-	-	-	-	60W
TMP60-SXX	21~27V	0A	2.86A	-	-	-	-	-	-	60W
TMP60-SXX	27~33V	0A	2.23A	-	-	-	-	-	-	60W
TMP60-SXX	33~39V	0A	1.82A	-	-	-	-	-	-	60W
TMP60-SXX	46~50V	0A	1.31A	-	-	-	-	-	-	60W
TMP60-D23	+5V	1A	5.0A	+12V	0.5A	3.0A	-	-	-	40W
TMP60-T30	+3.3V	1A	6.0A	+5V	0.5A	3.0A	+12V	0.1A	0.7A	30W
TMP60-T31	+5V	1A	5.0A	+12V	0.5A	3.0A	-12V	0.1A	0.7A	40W
TMP60-T32	+5V	1A	5.0A	+15V	0.4A	2.3A	-15V	0.1A	0.7A	40W
TMP60-T36	+5V	1A	5.0A	+24V	0.3A	1.5A	+12V	0.1A	0.7A	40W

**Notes:**

- 1) The output voltages of a multiple output model may go outside of the stated tolerance when an output load current is out of stated limits. All models may be operated at no-load without damage.
- 2) For single output models, specify the output voltage when ordering, e.g. TMP60-S19.5 for 19.5V.
- 3) To order a model with on/off switch, add suffix "S" to the model number, e.g. TMP60-S30-S.

### MECHANICAL SPECIFICATIONS



DC OUTPUT CONNECTOR			
PIN	SINGLE	DUAL	TRIPLE
1	RETURN	COMMON RETURN	COMMON RETURN
2	RETURN	COMMON RETURN	COMMON RETURN
3	OUTPUT	OUTPUT #1	OUTPUT #1
4	RETURN	N.C.	OUTPUT #3
5	OUTPUT	OUTPUT #2	OUTPUT #2
SHELL	AC GROUND		

**Notes:**

- 1) Dimensions shown in inches (mm)
- 2) Tolerance 0.02 (0.5) maximum
- 3) Standard output connector is 5-pin DIN plug, mating with Switchcraft P/N 57GB5F receptacle or equivalent. Contact TRUMPower for output connector options.
- 4) Weight: 600 grams (1.22 lbs.) approx.