



FEATURES

- 90 to 264 VAC Input, Soft Start
- 12 to 50 VDC Output Voltages
- High Peak Power
- 0.98 Power Factor
- 87% to 91% Efficiency
- Low Safety Ground Leakage Current
- IEC 320/C14 (Class I), IEC 320/C8P (Class II) Inlets



INPUT SPECIFICATIONS

Input Voltage Range	90-264 VAC
Input Frequency	47-63Hz
Input Current	1.4A rms @ 115 VAC 0.7A rms @ 230 VAC
Inrush Current	80A @ 115 VAC or 120A @ 230 VAC, at 25°C cold start
Soft Start	Yes
Earth Leakage Current	200 µA max. @ 264 VAC, 63Hz
Touch Current	100 µA max. @ 264 VAC, 63Hz

OUTPUT SPECIFICATIONS

Output Power Ratings	See table
Minimum Load	Not required
Tolerance	±5%
Ripple and Noise*	1% peak to peak max. at full load
Overvoltage Protection	Set at 115-140% of its nominal output voltage
Overcurrent Protection	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 µs 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

Power Factor	0.98 typical @ 115 VAC
Efficiency	87% min. @ full load
Hold-up Time	10ms @ 110 VAC
Switching Frequency	70-140 KHz
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% to 95% non-condensing
Withstand Voltage	5,600 VDC input-output (2MOPP) (4,000 VAC for Class II models), 2,100 VDC input-ground (1MOPP), 700 VDC output-ground
MTBF	150K hours minimum at full load, 25°C ambient, calculated per MIL-HDBK-217F

MODELS LIST

Product No. ⁽¹⁾	Output Voltage	Maximum Current	Peak ⁽²⁾ Current	Maximum Power
TMP105-12	12V	7.5A	15A	90W
TMP105-13	13V	6.93A	13.8A	90W
TMP105-15	14~16V	6.79A	13.58A	95W
TMP105-18	18~19V	5.84A	11.6A	105W
TMP105-20	20~21V	5.25A	10.5A	105W
TMP105-24	24~25V	4.38A	8.7A	105W
TMP105-28	28~29V	3.75A	4.5A	105W
TMP105-30	30~32V	3.5A	4.2A	105W
TMP105-36	36~38V	2.92A	3.5A	105W
TMP105-48	46~50V	2.29A	2.7A	105W

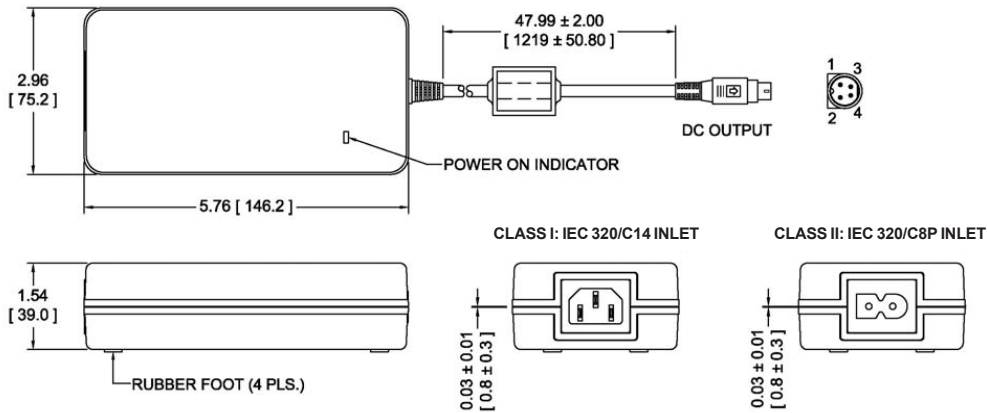
Notes:

- 1) The listed P/N's are for Class I models equipped with IEC 320/C14 AC inlet. Add suffix "C2" to order Class II models equipped with IEC 320/C8P AC inlet. When ordering 14-50V output units, specify the requested voltage, e.g. use P/N TMP105-19.5-C2 to order 19.5V Class II model.
- 2) The peak current is for 10 seconds maximum with the average power not over the maximum power.

STANDARDS & COMPLIANCES

IEC/EN 60601-1-2: 2014 ..	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 & D
EN 61000-3-3	Line fluctuations & flicker
EN 61000-4-2	ESD, ±15 KV air and ±8 KV contact
EN 61000-4-3	Radiated immunity, 10V/m
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, 6Vrms
EN 61000-4-8	Magnetic field immunity, 30A/m
EN 61000-4-11	Voltage dip immunity, 30% reduction for 500ms, 60% reduction for 100ms, >95% reduction for 10ms
Safety Standards	UL/IEC/EN 60601-1 (Edition 3.1), ANSI/AAMI ES 60601-1 (2012), CSA C22.2 No. 60601-1 (2014); UL/IEC/EN 60950-1 (2nd Edition), CSA C22.2 No. 60950-1 (2nd Edition)
Agency Approvals	UL, cUL, TUV/GS, CE, CB
Other Compliances	RoHS, CEC & Energy Star Level V

MECHANICAL SPECIFICATIONS



DC OUTPUT CONNECTOR	
PIN	FUNCTION
1	RETURN
2	+V
3	RETURN
4	+V
SHELL	AC GND/*NC
*Shell is NC on class II models	

Notes:

1. Unit: inch [mm]
2. Tolerance: 0.02 [0.5] maximum
3. Weight: 681g (1.505 lbs.) approx.
4. Output connector: Kycon P/N KPPX-4P circular DIN connector or equivalent
5. Mating connector: Kycon P/N KPJX-4S-S or equivalent
6. Contact TRUMPower for output connector options.
7. The output cable on 12V to 16V output models is 37.4 inches (950mm) long so as to meet CEC efficiency Level V requirements.