



FEATURES

- 90~264 VAC Universal Input
- Class II Insulation
- Standby Power Consumption < 0.3W
- Interchangeable and Fixed Plugs Available
- Meet CEC and Energy Star Efficiency Level V

INPUT SPECIFICATIONS

Input Voltage Range	90~264 VAC
Input Frequency	47~63Hz
Input Current	0.5A rms @ 115 VAC 0.3A rms @ 230 VAC
Inrush Current	30A @115 VAC or 60A @ 230 VAC (except 80A for 5V output) at 25°C cold start
Enclosure Leakage Current	100 µA max. @ 264 VAC, 63Hz

OUTPUT SPECIFICATIONS

Output Power	15W max.
Output Voltage	See table
Output Current	See table
Ripple and Noise*	1% p-p max., except 70 mVp-p on 5V with interchangeable plug
Overvoltage Protection	Set at 116-230% of its nominal output voltage
Overcurrent Protection	Protected to short-circuit conditions
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 47 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor in parallel across the output.

GENERAL SPECIFICATIONS

Efficiency	See rating chart
Hold-up Time	8 ms min. @ 115 VAC
Turn-on Delay Time	3 seconds max. @ 115 VAC
Line Regulation	±0.5% max. at full load
Operating Temperature	0°C to +40°C
Derating	Derate from 100% at +40°C linearly to 50% at +60°C
Storage Temperature	-40°C to +85°C
Temperature Coefficient	±0.04%/°C max.
Relative Humidity	10% to 90% non-condensing
Withstand Voltage	4,000 VAC from input to output
MTBF	300K hours minimum at full load, 25°C ambient, calculated per MIL-HDBK-217F



MODELS LIST

*Product No.	Output Voltage	Max. Output Current	Tol.	Ripple & Noise	Active Efficiency	
					@ 115 VAC	@ 230 VAC
TWM15-05-X	5V	3A	±5%	70mV	78%	77%
TWM15-06-X	6V	2.5A	±5%	60mV	80%	78%
TWM15-09-X	9V	1.67A	±5%	90mV	82%	80%
TWM15-12-X	12V	1.25A	±5%	120mV	82%	80%
TWM15-15-X	15V	1A	±5%	150mV	83%	80%
TWM15-24-X	24V	0.625A	±5%	240mV	85%	81%

*X = AC plug code. See below tables and drawings for details.

X	Fixed Type of AC Plug
E	EU Plug
U	USA Plug, Polarized
UN	USA Plug, Non-Polarized
*I	*Interchangeable "main body" without AC plug

P/N	*Interchangeable AC Plug
IPB	British/UK Plug
IPE	EU Plug
IPU	USA Plug (for 115V socket)
IPUH	USA Plug (for 230V socket)

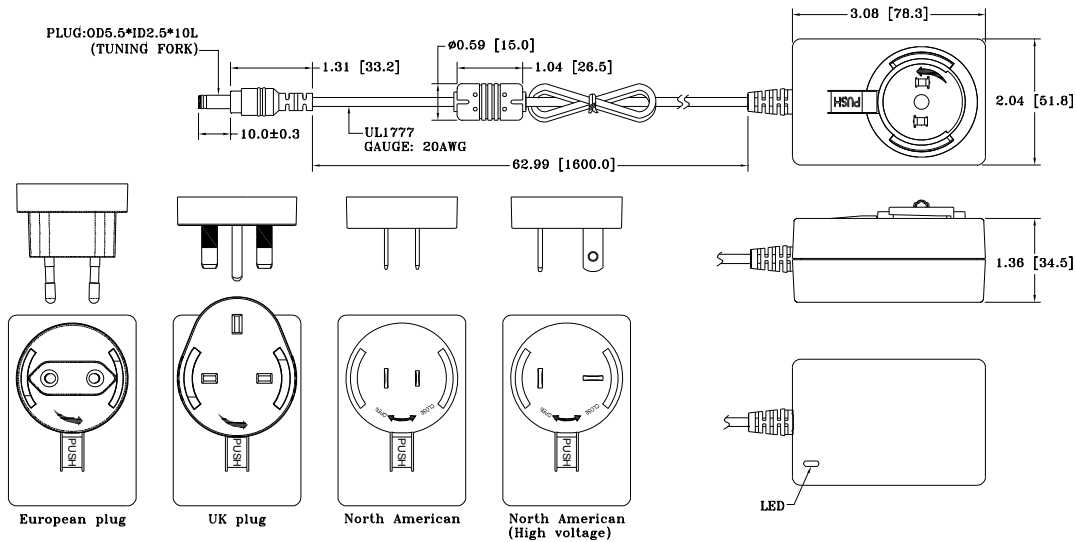
*Must order with the interchangeable "main body" such as TWM15-05-I, etc.

STANDARDS & COMPLIANCES

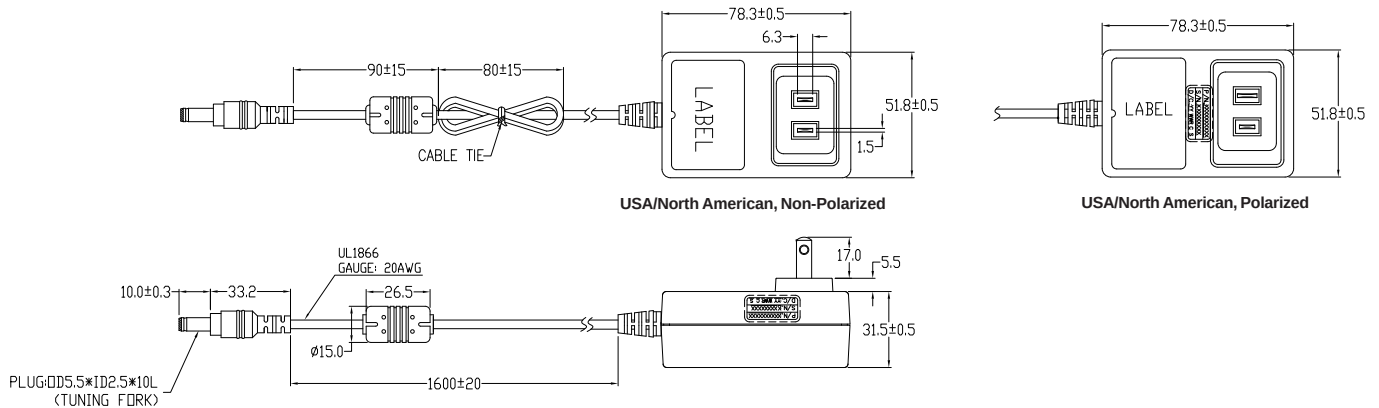
IEC 60601-1-2	EMC & Immunity performance
EN 55011, FCC, VCCI	Class B, conducted & radiated
EN 61000-3-2	Harmonic distortion, Class A & D
EN 61000-3-3	Line flicker
EN 61000-4-2	ESD, ±8KV air and ±6KV contact
EN 61000-4-3	Radiated immunity, 3V/m
EN 61000-4-4	Fast transient/burst, ±2KV
EN 61000-4-5	Surge,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

MECHANICAL SPECIFICATIONS

Interchangeable Types



Fixed Types



NOTES:

1. Dimensions: inches [mm]
2. Tolerance: 0.02 [0.5] maximum
3. Weight: approx. 200 grams (0.44 lbs.)
4. The DC connector shown on the drawings is just an example. Contact TRUMPower for connector options.
5. The output cable is 20 AWG x 1600 mm, except 16 AWG x 1000 mm on 5V & 6V output models, and 18 AWG x 1200 mm on 9V output model, so as to comply with CEC and Energy Star efficiency level V requirements. Longer cables are available with efficiency reduced.