



**INPUT SPECIFICATIONS**

Input Voltage Range ..... 90-264 VAC  
 Input Frequency ..... 47-63 Hz  
 Input Current ..... 0.32A rms @ 115 VAC,  
 0.19A rms @ 230 VAC  
 Inrush Current..... 60A @ 240 VAC, 25°C cold start  
 Touch Current ..... 100 µA max.  
 No Load Power Cons. .... 0.075W max.

**STANDARDS & COMPLIANCE**

IEC/EN 60601-1-2:2014 ..... EMC & Immunity Performance  
 EN 55011, CISPR 11, FCC ... Class B, conducted & radiated  
 EN 61000-3-2 ..... Harmonic distortion, Class A  
 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, 6 Vrms  
 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 ..... IEC/EN/UL 60601-1 (Edition 3.1)  
 ANSI/AAMI ES 60601-1 (2012),  
 CSA C22.2 No. 60601-1 (2014),  
 IEC/EN 60950-1 (2nd Edition),  
 PSE J60950-1, IEC/EN 62366  
 Agency Approvals ..... UL, cUL, TUV, PSE, CE, CB  
 Other Compliance ..... RoHS, DOE/GEMS VI, ErP Stage II

**OUTPUT SPECIFICATIONS**

Output Voltage ..... 5 VDC  
 Output Current ..... 2.4A, max.  
 Line Regulation ..... ±1% max.  
 Load Regulation ..... ±5% max.  
 Ripple and Noise\* ..... 100 mVp-p max.  
 Over Voltage Protection ..... Shut down  
 Short Circuit Protection ..... Shut down; Auto-recovery  
 Over Current Protection ..... Shutdown, Auto-recovery  
 Hold-up Time ..... 10 ms @ full load  
 Transient Response ..... 0.5 ms @ 50% load change  
 Temperature Coefficient ..... ±0.04%/°C max.

\* 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**

Efficiency (Avg.) ..... 83% min.  
 Operating Temperature ..... 0°C to +40°C  
 Storage Temperature ..... -20°C to +80°C  
 Operating Humidity ..... 20% to 80% non-condensing  
 Storage Humidity ..... 10% to 90% non-condensing  
 Withstand Voltage ..... 4,000 VAC, input-output (2 MOPP)  
 MTBF ..... 300 Khrs minimum at full load,  
 25°C ambient, calculated per  
 Telecordia SR-332

**ORDERING INFORMATION**

**P/N: TMW12-5-XY**

Code X	AC Plug
<b>U</b>	Fixed US Plug
<b>E</b>	Fixed EU Plug
<b>B</b>	Fixed UK Plug
<b>A</b>	Fixed Australia Plug
<b>I</b>	*Main Body without plug

\*Order interchangeable plugs separately.

Code Y	Output Connector
<b>P</b>	USB type A receptacle on case
<b>MA</b>	USB Mini-A plug on molded cable
<b>MB</b>	USB Mini-B plug on molded cable
<b>UA</b>	USB Micro-A plug on molded cable
<b>UB</b>	USB Micro-B plug on molded cable

Interchangeable Plug	Part No.
US Plug	<b>TIPU</b>
EU Plug	<b>TIPE</b>
UK Plug	<b>TIPB</b>
AU Plug	<b>TIPA</b>

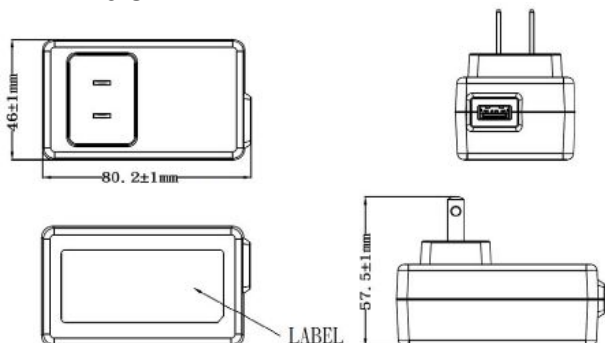
Note: Add suffix "W" to the P/N for white colored units, e.g. TMW12-5-UPW, TMW12-5-IPW, TMW12-5-IUBW, TMW12-5-EUBW, TIPUW, etc.

# TMW12 USB Series

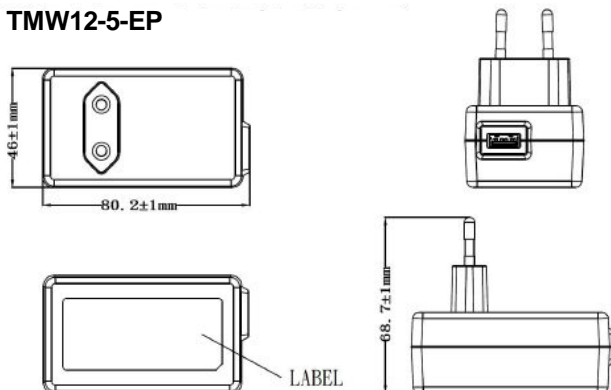
## 12 Watts Medical Grade USB Power Adapters

### MECHANICAL SPECIFICATIONS

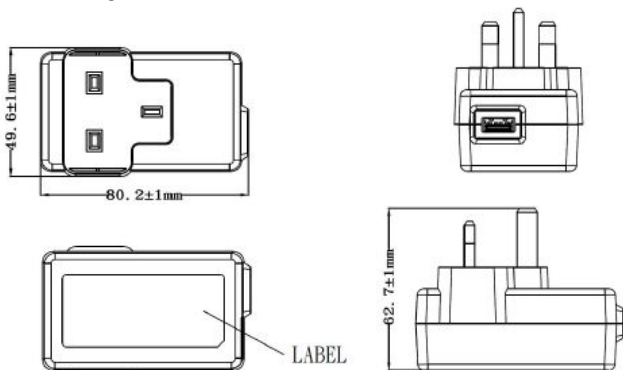
**TMW12-5-UP**



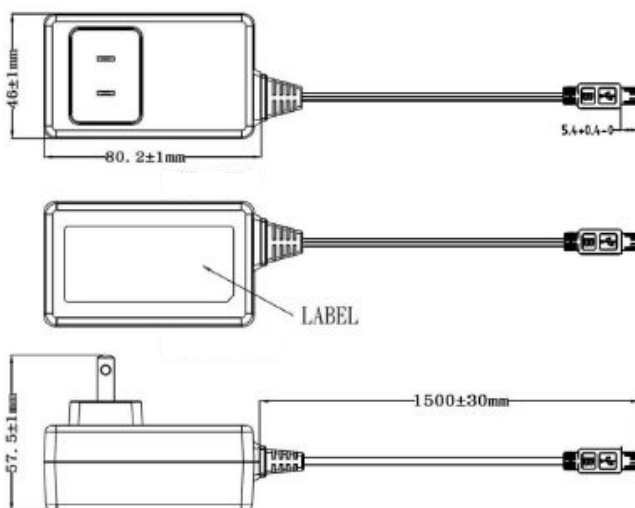
**TMW12-5-EP**



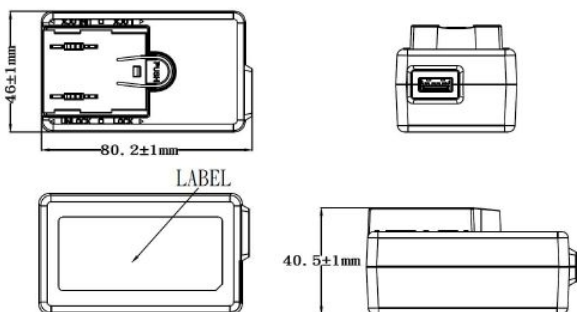
**TMW12-5-BP**



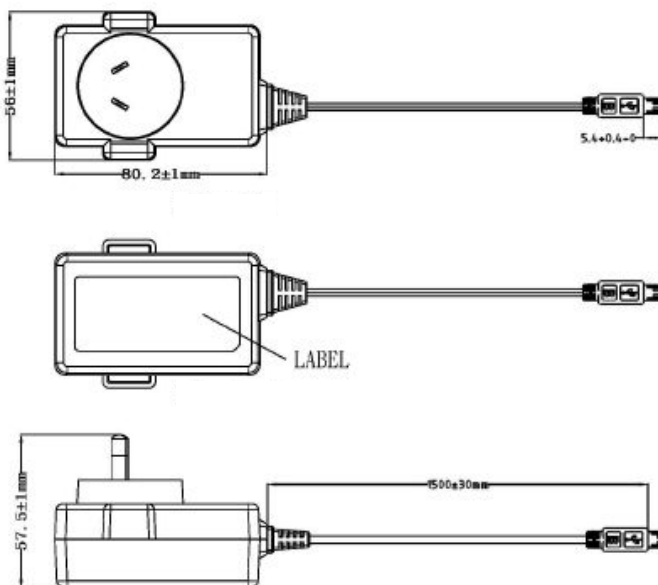
**TMW12-5-UY\*** (\*Refer to the Code Y table.)



**TMW12-5-IP**



**TMW12-5-AY\*** (\*Refer to the Code Y table.)



INTERCHANGEABLE AC PLUGS			
TIPU	TIFE	TIPB	TIPA