DESCRIPTION

The PMP15 series of AC/DC wall-mount switching power supplies are for 15 watts of continuous output power. They are enclosed in a 94V-0 rated polycarbonate case. The PMP15M models are shipped with a selected interchangeable AC plug, and additional types of AC plug can be purchased from the factory. All models meet EN55011 and FCC class B emission limits, and are designed for medical applications.

PMP15 SERIES

RoHS

FEATURES

- Interchangeable AC plugs
- High efficiency
- Low ripple & noise
- Overvoltage protection
- Over-temperature protection
- Short-circuit protection
- 100% burn-in at full rated load
- Standby consumption less than 0.3 W
- Compliant with CEC and ENERGY STAR efficiency level V requirements
- Compliant with RoHS requirements

SAFETY STANDARD APPROVALS

UL ES 60601-1, CSA C22.2 No. 60601-1
File No. E 211696

TÜV EN 60601-1

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	0.5 A (rms) for 115 VAC 0.3 A (rms) for 230 VAC
Touch current:	100 μA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage /current:	See rating chart.
Maximum output power:	See rating chart.
Ripple and noise:	1% peak to peak maximum(except 100 mVp-p max. for lower than output 10 V)
Overvoltage protection:	Set at 116% to 230% of its nominal output voltage
Overcurrent protection:	Protected to short circuit conditions
Temperature coefficient:	±0.04%/℃ maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0℃ to +40℃
Storage temperature:	-40℃ to +85℃
Relative humidity:	10% to 90% non-condensing
Derating:	Derate from 100% at +40℃ linearly to 50% at +60℃

GENERAL SPECIFICATIONS

Hold-up time:	8 ms minimum at 115 VAC
Turn on delay time:	3 s maximum at 115 VAC
Efficiency:	Compliant with Energy Star efficiency level V requirements (see rating chart)
Line regulation:	±0.5% maximum at full load
Inrush current:	30 A @ 115 VAC or 60 A @ 230 VAC (80 A for PMP15M/D/E-10) at 25℃ cold start
Withstand voltage:	4000 VAC from input to output
MTBF:	300,000 hours at full load at 25℃ ambient, calculated per MIL-HDBK-217F

EMC Performance (IEC60601-1-2)

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, ±15 KV air and ±8 KV contact
EN61000-4-3:	Radiated immunity, 10 V/m
EN61000-4-4:	Fast transient/burst, ±2 KV
EN61000-4-5:	Surge, ±1 KV diff., ±2 KV com
EN61000-4-6:	Conducted immunity, 10 Vrms
EN61000-4-8:	Magnetic field immunity, 30 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, 100% reduction for 10 ms

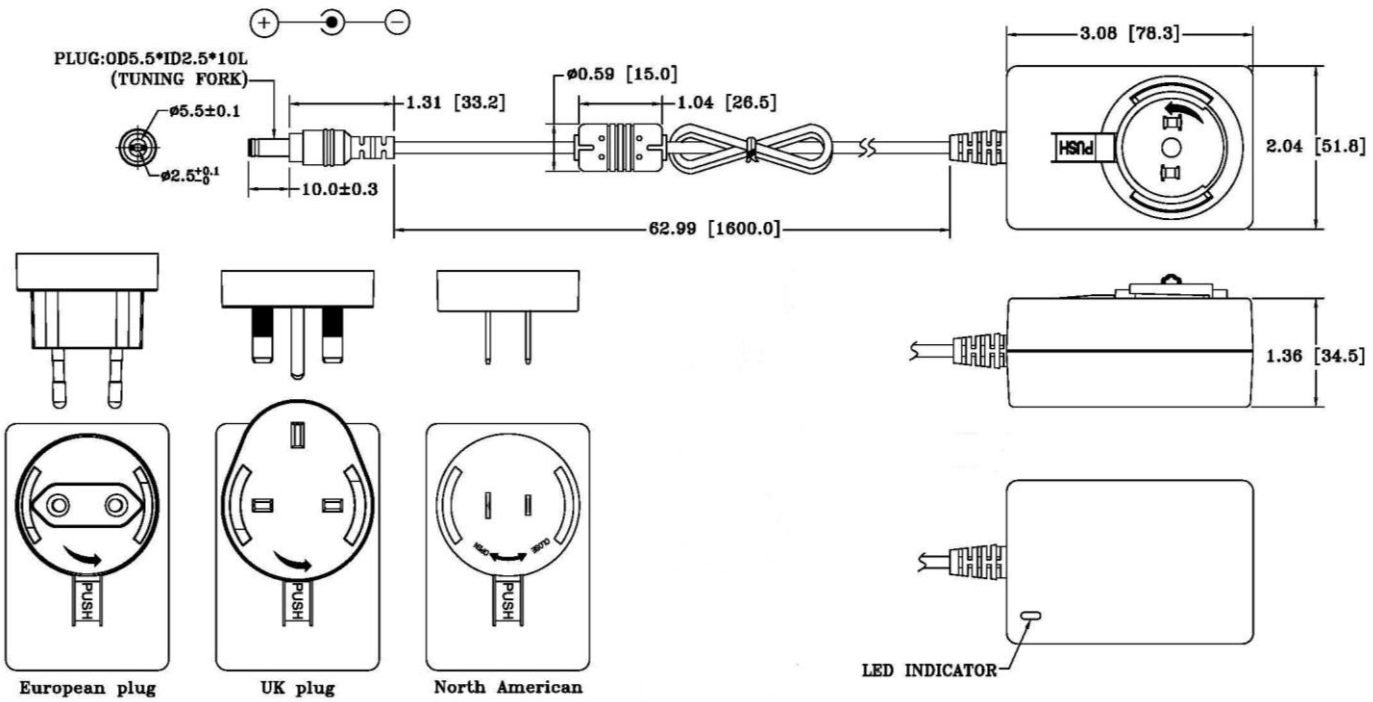
OUTPUT VOLTAGE/CURRENT RATING CHART

Model[1]	Output						Average Active Efficiency (typical) @ 115 / 230 Vac
	V1	Min. Current	Max. Current	Tol.	Ripple & Noise[2]	Max. Output Power	
PMP15M-10	5 V	0 A	3.0 A	±5%	100 mV	15 W	78 /77%
PMP15M-10-1	6 V	0 A	2.5 A	±5%	100 mV	15 W	80 /78%
PMP15M-11	9 V	0 A	1.67 A	±5%	100 mV	15 W	82 /80%
PMP15M-12	12 V	0 A	1.25 A	±5%	120 mV	15 W	82 /80%
PMP15M-13	15 V	0 A	1.0 A	±5%	150 mV	15 W	83 /80%
PMP15M-14	24 V	0 A	0.625 A	±5%	240 mV	15 W	85 /81%
PMP15D-10	5 V	0 A	3.0 A	±5%	100 mV	15 W	78 /77%
PMP15D-11	9 V	0 A	1.67 A	±5%	100 mV	15 W	82 /80%
PMP15D-12	12 V	0 A	1.25 A	±5%	120 mV	15 W	82 /80%
PMP15D-14	24 V	0 A	0.625 A	±5%	240 mV	15 W	85 /81%
PMP15NP-10	5 V	0 A	3.0 A	±5%	100 mV	15 W	78 /77%
PMP15NP-11	9 V	0 A	1.67 A	±5%	100 mV	15 W	82 /80%
PMP15NP-12	12 V	0 A	1.25 A	±5%	120 mV	15 W	82 /80%
PMP15NP-14	24 V	0 A	0.625 A	±5%	240 mV	15 W	85 /81%
PMP15E-10	5 V	0 A	3.0 A	±5%	100 mV	15 W	78 /77%
PMP15E-12	12 V	0 A	1.25 A	±5%	120 mV	15 W	82 /80%
PMP15E-14	24 V	0 A	0.625 A	±5%	240 mV	15 W	85 /81%

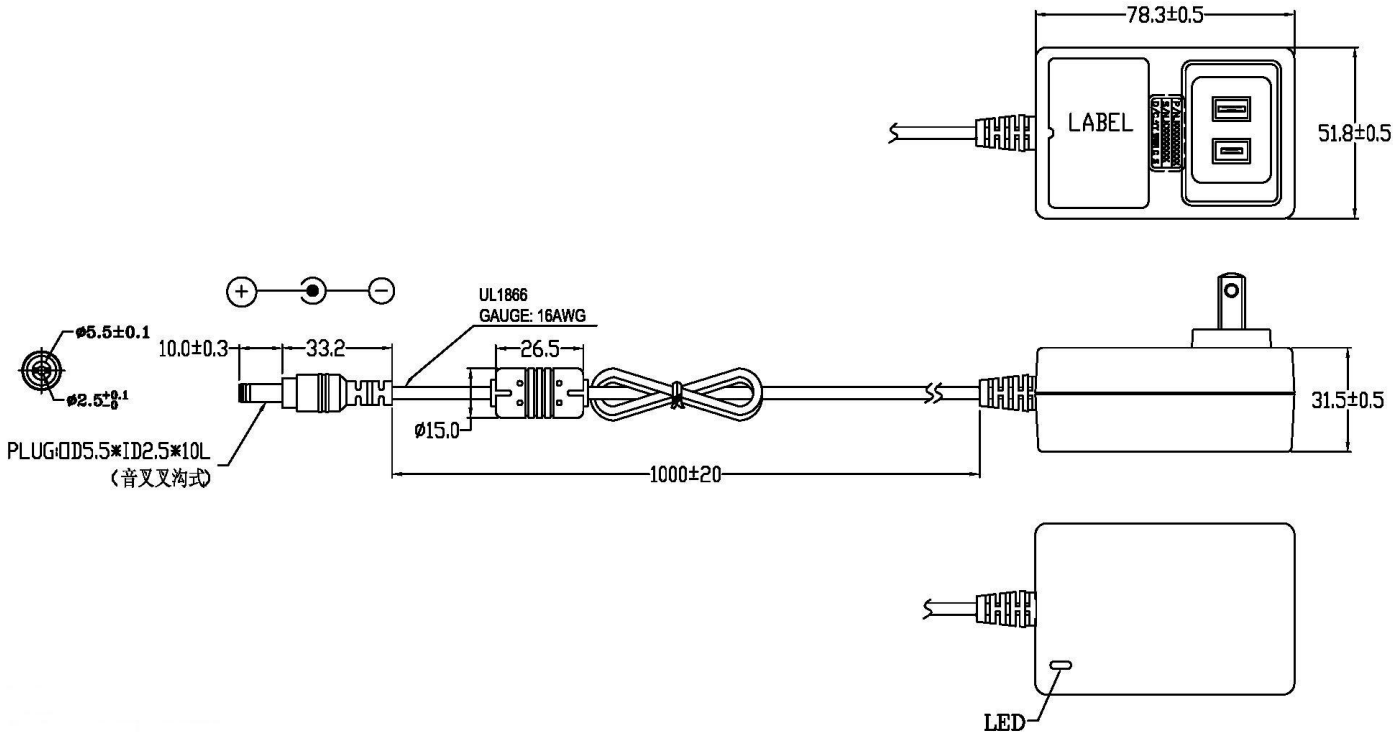
NOTES:
1. PMP15M models are for interchangeable AC plugs which are to be ordered separately. PMP15D and PMP15NP models are with fixed North American AC plug for safety approval cULus only, and PMP15E models with fixed European AC plug for safety approval TÜV only.
2. Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 47 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS

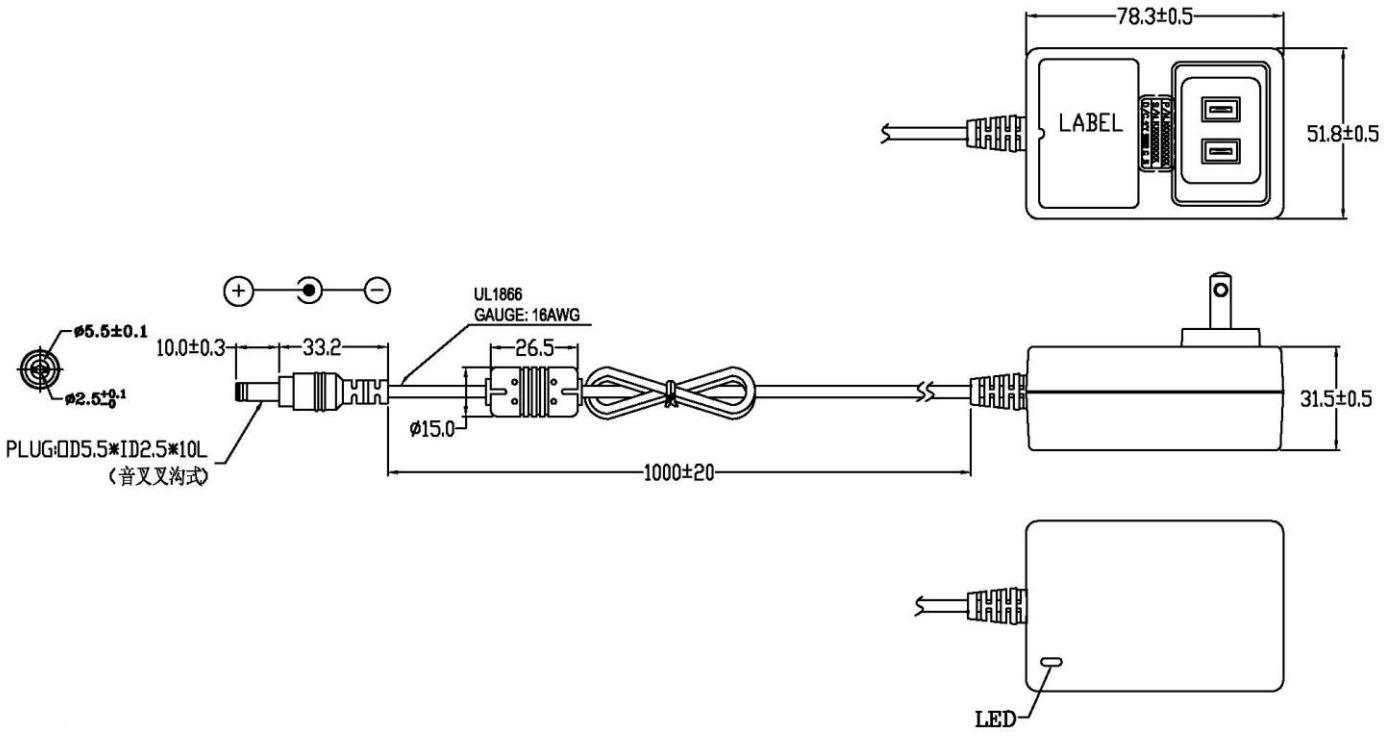
1. PMP15M models (Interchangeable AC Plug)



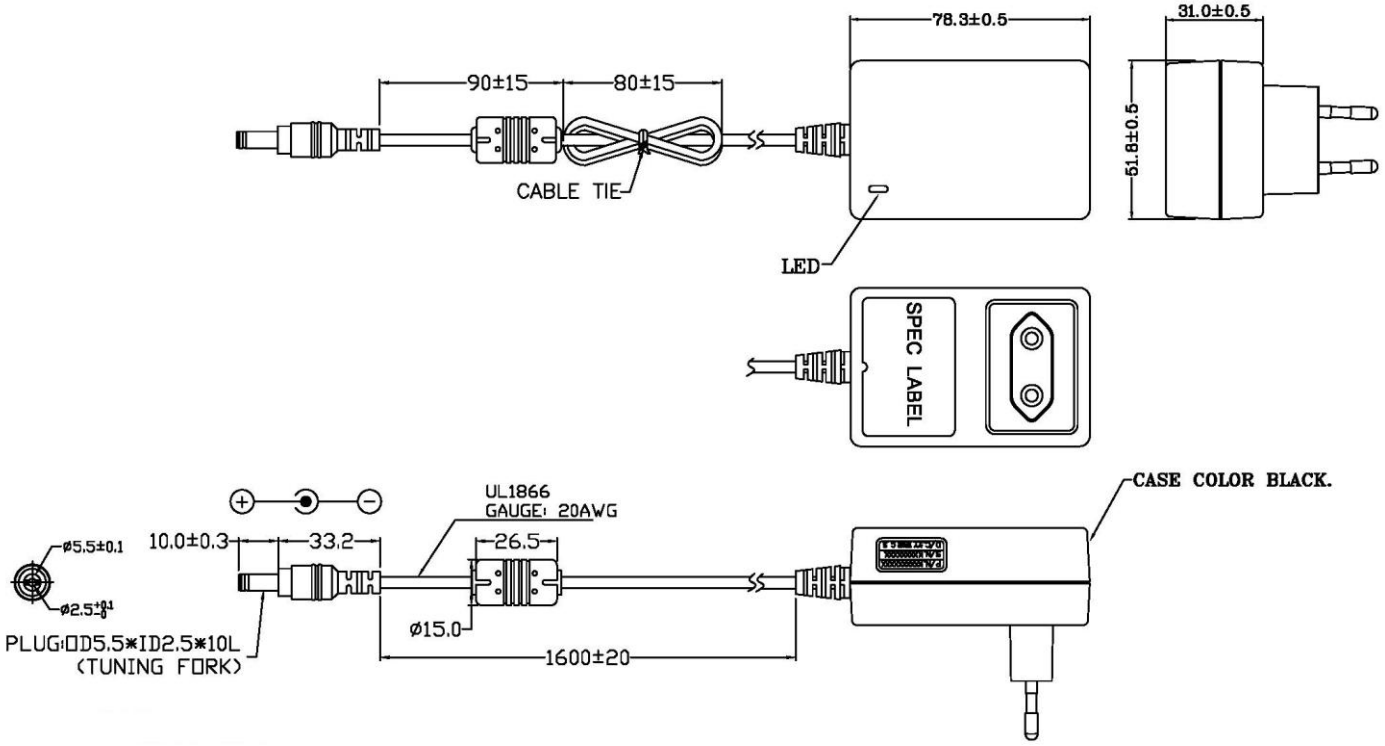
2. PMP15D models (Fixed North American AC Plug, Polarization)



3. PMP15NP models (Fixed North American AC Plug, Non-Polarization)



4. PMP15E models (Fixed European AC Plug)



NOTES:

1. Dimensions shown in inches [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 200 grams (0.44 lbs.) approx.
4. Output cable is 1600 mm 20 AWG except 1000 mm 16 AWG for 5 V and 6 V output models, and 1200 mm 18 AWG for 9 V output model, so as to comply with CEC and Energy Star efficiency level V requirements.
5. Output connector is 5.5 mm O.D., 2.5 mm I.D., 10 mm long barrel female connector, center positive voltage.
6. Interchangeable AC plugs can be ordered by referring to the following ordering number:

Type	Ordering no.
European plug	4AP00043
UK plug	4AP00049
US plug (polarization)	4AP00045
China plug	4AP00069
US plug (non-polarization)	4AP00042
India plug	5OE00006
Australia plug	5OE00008