PMP150 Series

132-150 WATTS - AC/DC SINGLE OUTPUT

MEDICAL

FEATURES

- Low safety ground leakage current
- Class I and Class II models are certified to medical and ITE safety standards
- Wide input range
- Optional output connectors
- Over voltage protection
- Over current protection
- Compliant with CEC and Energy Star Efficiency level IV
- RoHS Compliant

SPECIFICATIONS

INPUT	
Voltage range	90-264 VAC
Frequency	47-63 Hz
Inrush current	60 A @ 115 VAC or 120 A @ 230 VAC, at 25°C cold start
Input current	2.0 A (rms) for 115 VAC 1.0 A (rms) for 230 VAC
Earth leakage current	220 µA max. @ 264 VAC, 63 Hz
Touch current	100 µA max. @ 264 VAC, 63 Hz
Power factor	0.98 Typical at 115 VAC
Isolation	Input – Output: 4000VAC Input – Case:1500VAC Output – Case: 500VAC
OUTPUT	
Output voltage	See table
Output current	See table
Ripple and noise	1% peak to peak maximum at full load
Line regulation	±0.5% maximum at full load
Load regulation	See table
Minimum load current	0A all models
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
Overvoltage protection	Provided and set at 112-140% of its nominal output voltage
Overcurrent protection	Protected to short circuit conditions
Temperature coefficient	±0.04% /°C maximum
Hold-up time	15 ms minimum at 115 VAC

OPERATING	
MTBF	150,000 hours minimum at full load at 25°C ambient, calculated per MIL-HDBK-217F
Efficiency	Average active 87% min. (except 85% min.for PMP150-12 and PMP150-13)
Switching frequency	30-110 KHz
ENVIRONMENT	
Operating temperature:	0°C to +60°C
Storage temperature:	-40°C to +85°C
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +40°C linearly to 50% at +60°C
STANDARDS AND APPROVALS	
Safety	UL 60601-1, CSA C22.2 No. 601.1, TÜV EN 60601-1, UL 60950-1, CSA C22.2 No. 60950-1, TÜV EN 60950-1
C-Tick	AS/NZS CISPR11 Group1, Class A
EMC standards	(IEC60601-1-2) EN55011 / EN55022 and FCC, VCCI: Class B conducted . class B radiated
Immunity standards	EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11
MECHANICAL	
Dimensions	207.6x82x49.7mm
Weight	960g

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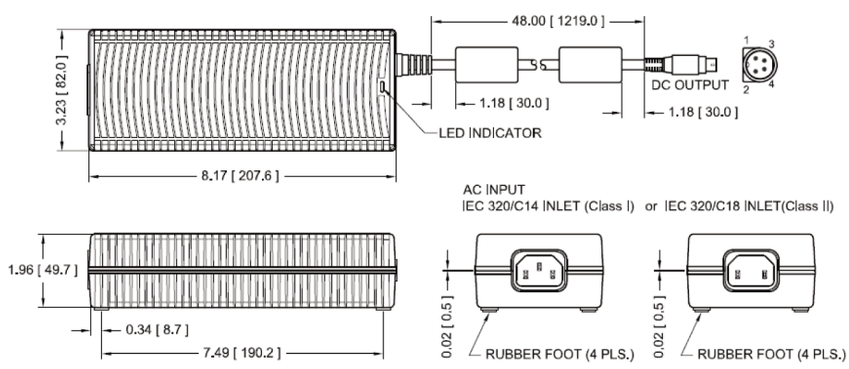
OUTPUT VOLTAGE/CURRENT RATING CHART

MODEL(1)		OUTPUT						AVERAGE ACTIVE EFFICIENCY (TYPICAL) @ 115 / 230 VAC
CLASS I	CLASS II	V1	MIN. CURRENT	MAX. CURRENT	TOL.	RIPPLE & NOISE (2)	MAX POWER	
PMP150-12	PMP150F-12	12.0 V	0 A	11.00 A	±5%	120 mV	132 W	87 / 86 %
PMP150-13	PMP150F-13	15.0 V	0 A	9.00 A	±5%	150 mV	135 W	87 / 86 %
PMP150-13-2	PMP150F-13-2	19.0 V	0 A	7.90 A	±5%	190 mV	150 W	88 / 88 %
PMP150-14	PMP150F-14	24.0 V	0 A	6.25 A	±5%	240 mV	150 W	88 / 88 %
PMP150-15	PMP150F-15	27.0 V	0 A	5.56 A	±5%	270 mV	150 W	88 / 88 %
PMP150-18	PMP150F-18	48.0 V	0 A	3.13 A	±5%	480 mV	150 W	88 / 88 %

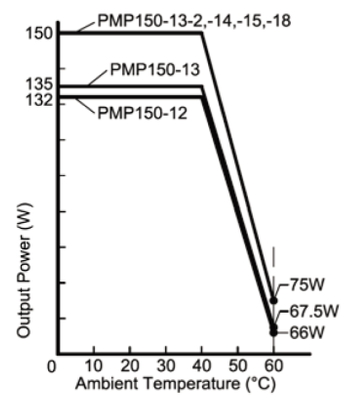
NOTES:

1. Class I models are equipped with IEC320/C14 inlet, and class II models with IEC320/C18 inlet.
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 10 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS



OUTPUT POWER DERATING CURVE



NOTES:

1. Dimensions shown in inches [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 681 grams (1.505 lbs.) approx.
4. Refer to Section titled "OPTIONAL OUTPUT CONNECTORS". Add the suffix assigned for a selected connector to a wanted model number, e.g. PMP135-14-B1, for ordering.
5. The length of output cable for PMP135-12, PMP135-12-1, PMP135-13, PMP135F-12, PMP135F-12-1, and PMP135F-13 is 37.4 (950)

PIN CHART

MODEL	PIN	1	2	3	4
PMP150-12 PMP150-13 PMP150-13-2 PMP150-14 PMP150-15 PMP150-18	PMP150F-12 PMP150F-13 PMP150F-13-2 PMP150F-14 PMP150F-15 PMP150F-18	V1 Return	+V1	V1 Return	+V1