

DESCRIPTION

The PM60 series of compact, open PCB constructed, AC-DC switching power supplies are capable of delivering 37.5-64 watts of continuous output power at convection cooling. They operate at 90-264 VAC input voltage without the need of voltage selection, and are suited for medical, information technology and industrial applications. Approval to both EN 60601-1 and EN 60950-1 safety standards improves design-in time and reduces end equipment compliance costs.

FEATURES

- Medical and industrial approvals
- Compact size 2" x 4" x 1.18"
- Single, dual and triple outputs
- Class I and Class II construction
- Low earth leakage current
- Level B emissions
- RoHS compliant

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	1.3 A (rms) for 100 VAC 0.7 A (rms) for 240 VAC
Earth leakage current:	150 uA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Maximum output power:	See rating chart.
Ripple and noise:	100mV peak to peak on 3.3V & 5.0 V model, 1% peak to peak on other models
Overvoltage protection:	Provided on output #1 only; set at 112-132% of its nominal output voltage
Overcurrent protection:	All outputs protected to short circuit conditions
Temperature coefficient:	All outputs $\pm 0.04\%$ / $^{\circ}\text{C}$ 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:	-10 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$
Storage temperature:	-40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50 $^{\circ}\text{C}$ linearly to 50% at +70 $^{\circ}\text{C}$

PM60 SERIES



CE (LVD)
RoHS

SAFETY STANDARD APPROVALS



UL 60601-1, CSA C22.2 No. 601.1
File No. E178020



TÜV EN60601-1



UL 60950-1, CSA C22.2 No. 60950-1
(except PM60-31-3A by UL)



TÜV EN60950-1

GENERAL SPECIFICATIONS

Switching frequency:	62 K \pm 5 KHz
Efficiency:	80-88% typical except PM60-31-3A and PM60-31-5A at 75% typical
Hold-up time:	12 msec minimum at 110 VAC
Line regulation:	$\pm 0.5\%$ maximum at full load
Inrush current:	30 A @ 115 VAC, or 60 A @ 230 VAC, at 25 $^{\circ}\text{C}$ cold start
Withstand voltage:	4000 VAC from input to output 1500 VAC from input to ground 500 VAC from output to ground
MTBF:	400,000 hours at full load at 25 $^{\circ}\text{C}$ ambient, calculated per MIL-HDBK-217F
EMC Performance	
EN55011 / EN55022:	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, ± 8 KV air and ± 6 KV contact
EN61000-4-3:	Radiated immunity, 3 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, 3 Vrms
EN61000-4-8:	Magnetic field immunity, 3 A/m
EN61000-4-11:	Voltage dips, 30% reduction for 500 ms 60% reduction for 100 ms >95% reduction for 10 ms

