

DESCRIPTION

The TM66 series of compact, open PCB constructed, AC-DC switching power supplies are capable of delivering 51 to 65 watts of continuous power. They operate at 90 to 264VAC input voltage without the need of voltage selection. They are ideally suited for use in medical equipments. All models meet the safety requirements of UL, CSA and IEC.

FEATURES

- Recognized or certified by UL, CSA and TÜV
- Small size
- 100% burn-in
- 90 to 264VAC wide input range
- Input surge current protection
- Overvoltage protection
- Overcurrent protection
- Compliant with RoHS requirement

INPUT SPECIFICATIONS

Input voltage : 90 to 264VAC
Input frequency : 47 to 63 Hz
Input current : 1.60A (rms) for 115VAC
1.00A (rms) for 230VAC
Earth leakage current : 90µA max. @ 115VAC, 60Hz
150µA max. @ 230VAC, 50Hz

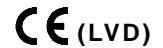
OUTPUT SPECIFICATIONS

Output voltage/current : See rating chart
Total output power : 65 watts maximum
Ripple and noise : 1% peak to peak maximum
Overvoltage protection : Provided on output; set at 112 – 132% of its nominal output voltage
Overcurrent protection : The output 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 500µs after a 25% step load change

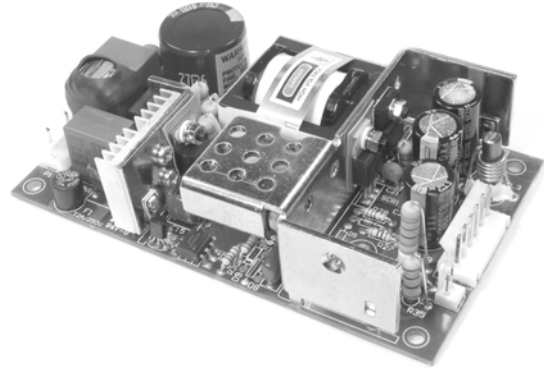
ENVIRONMENTAL SPECIFICATIONS

Operating temperature : 0°C to +70°C
Storage temperature : -40°C to +85°C
Relative humidity : 5% to 95% non-condensing
Derating : Derate from 100% at +50°C linearly to 50% at +70°C

TM66 SERIES



RoHS



Safety Standard Approvals :



UL 2601-1
CSA C22.2 No. 601.1



TÜV EN60601-1

GENERAL SPECIFICATIONS

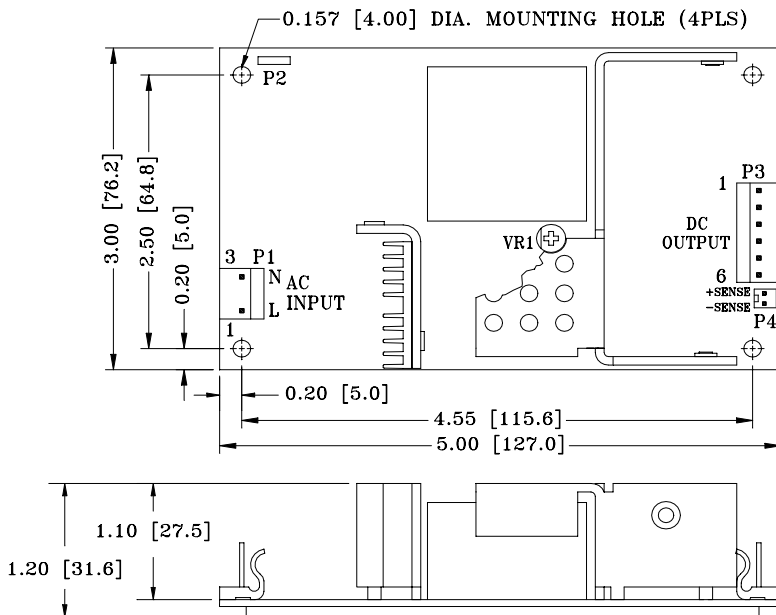
Switching frequency : 42KHz $\pm 5\text{KHz}$
Efficiency : 75% minimum on models with $V_o \geq 12\text{V}$, 6% minimum on the others
Hold-up time : 10 msec minimum at 110VAC
Line regulation : $\pm 0.5\%$ maximum at full load
Inrush current : 17 amps @ 115VAC or 40 amps @ 230VAC, at 25°C cold start
Withstand voltage : 4000VAC from input to output
1500VAC from input to ground
500VAC from output to ground
MTBF : 400,000 hours minimum at full load at 25°C ambient, calculated per MIL-HDBK-217F
EMC Performance (EN60601-1-2: 2001)
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
EN61000-3-3: Line flicker
EN61000-4-2: ESD, $\pm 8\text{KV}$ air and $\pm 6\text{KV}$ contact
EN61000-4-3: Radiated immunity, 3V/m for 80~2500MHz
EN61000-4-4: Fast transient/burst, $\pm 2\text{KV}$
EN61000-4-5: Surge, $\pm 1\text{KV}$ diff, $\pm 2\text{KV}$ com.
EN61000-4-6: Conducted immunity, 3Vrms
EN61000-4-8: Magnetic field immunity, 3A/m
EN61000-4-11: Voltage dips, 30% reduction for 500ms, 60% reduction for 100ms and >95% reduction for 10ms

OUTPUT VOLTAGE/ CURRENT RATING CHART

Product No.	Output #1				Output #2				Output #3				Maximum Output Power
	Vnom.	Imin.	I _{max}	Tol.	Vnom.	Imin.	I _{max}	Tol.	Vnom.	Imin.	I _{max}	Tol.	
TM66-5.1	5.1V	0A	10A	3%	(N/A)				(N/A)				51W
TM66-12	12V	0A	5.5A	2%	(N/A)				(N/A)				65W
TM66-15	15V	0A	4.4A	2%	(N/A)				(N/A)				65W
TM66-18	18V	0A	3.7A	2%	(N/A)				(N/A)				65W
TM66-24	24V	0A	2.8A	2%	(N/A)				(N/A)				65W
TM66-28	28V	0A	2.4A	2%	(N/A)				(N/A)				65W

NOTE: Ripple and noise: Peak-to-peak with 20MHz bandwidth and 10µF tantalum capacitor in parallel with a 0.1µF ceramic capacitor at rated line voltage and load ranges.

MECHANICAL SPECIFICATIONS



NOTES:

- Dimensions shown in inch [mm]
- Tolerance 0.02 [0.5] maximum
- Input connector mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
- Output connector mates with Molex housing 09-50-3061 and Molex 2878 series crimp terminal.
- P4 is for ±sense connections and mates with Molex housing 22-01-1023 and Molex 40445 series crimp terminal.
- Weight: 330 grams (PCB format)
- VR1 is for output voltage adjustment.

PIN CHART

CONN PIN Product No.	P1		P2	P3						P4	
	1	3	1	1	2	3	4	5	6	1	2
TM66-5.1 TM66-12 TM66-15 TM66-18 TM66-24 TM66-28	AC LIVE	AC NEUTRAL	AC GROUND	OUTPUT #1	OUTPUT #1	OUTPUT #1	RETURN	RETURN	RETURN	+SENSE	-SENSE