



# 25-30 WATT SWITCHING POWER SUPPLIES

## DESCRIPTION

The PU30SL series of compact, open PCB constructed, AC-DC switching power supplies are capable of delivering 25 to 30 watts of continuous output power. They operate at 85 to 264VAC input voltage without the need of voltage selection. They are ideally suited for use in today's CRT terminals, disc drive systems, small microprocessor based systems and other mixed logic applications. All models meet the safety requirements of UL, CSA and IEC.

## FEATURES

- Recognized or certified by UL, CSA and TÜV
- Small size, light weight
- 100% burn-in
- Wide input range 85 to 264VAC
- Input surge current protection
- Overvoltage protection
- Overcurrent protection
- Open PCB construction
- Compliant with RoHS requirements

## INPUT SPECIFICATIONS

Input voltage :	85 to 264VAC
Input frequency :	47 to 63Hz
Input current :	0.80A (rms) for 115VAC 0.50A (rms) for 230VAC
Earth leakage current : (Touch current)	0.35mA max. @ 115VAC, 60Hz 0.63mA max. @ 230VAC, 50Hz

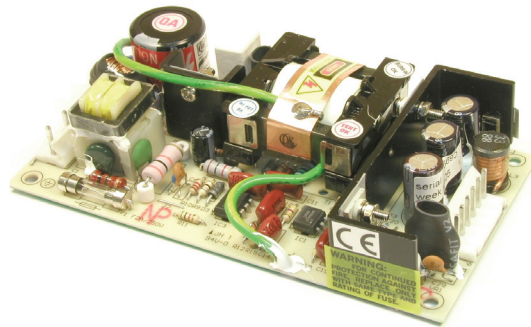
## OUTPUT SPECIFICATIONS

Output voltage/current :	See rating chart
Total output power :	30 watts maximum
Ripple and noise :	1% peak to peak maximum
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 500us after a 25% step load change

## ENVIRONMENTAL SPECIFICATIONS

Operating temperature :	0 $^{\circ}\text{C}$ 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 $^{\circ}\text{C}$

## PU30SL SERIES



## Safety Standard Approvals :



UL 60950-1  
File No. E137410



CSA C22.2 NO. 60950-1  
File No. LR93632



TÜV EN60950-1  
Certificate No. R9172042

## GENERAL SPECIFICATIONS

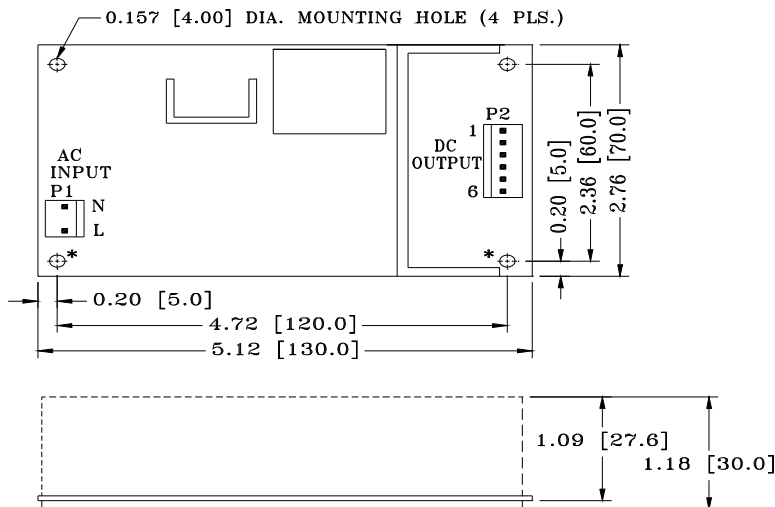
Switching frequency :	32KHz $\pm$ 5KHz
Efficiency :	70% minimum on single output models with $V_o \geq 15\text{V}$ , 65% minimum on the others
Hold-up time :	12 msec minimum at 110VAC
Line regulation :	$\pm 0.5\%$ maximum at full load
Inrush current :	15 amps @ 115VAC or 30 amps @ 230VAC, at 25 $^{\circ}\text{C}$ cold start
Withstand voltage :	3000VAC from input to output 1500VAC from input to ground 500VAC from output to ground
MTBF :	800,000 hours minimum at full load at 25 $^{\circ}\text{C}$ ambient, calculated per MIL-HDBK-217F
EMC Performance (EN55024)	
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, $\pm 8\text{KV}$ air and $\pm 4\text{KV}$ contact
EN61000-4-3:	Radiated immunity, 3V/m
EN61000-4-4:	Fast transient/burst, $\pm 1\text{KV}$
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, 1A/m
EN61000-4-11:	Voltage dips, 30% reduction for 500ms and >95% reduction for 10ms

## OUTPUT VOLTAGE/CURRENT RATING CHART

(1)(2) MODEL	Output #1				Output #2				Output #3				Maximum Output Power
	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	
PU30-10SL	5V	0A	5.0A	2%			(N/A)					(N/A)	25W
PU30-12SL	12V	0A	2.5A	1%			(N/A)					(N/A)	30W
PU30-13SL	15V	0A	2.0A	1%			(N/A)					(N/A)	30W
PU30-14SL	24V	0A	1.3A	1%			(N/A)					(N/A)	30W
PU30-23SL	+5V	0.3A	3.0A	3%	+12V	0.3A	1.5A	5%				(N/A)	30W
PU30-24SL	+5V	0.3A	3.0A	3%	+15V	0.2A	1.5A	5%				(N/A)	30W
PU30-25SL	+5V	0.3A	3.0A	3%	+24V	0.1A	1.0A	5%				(N/A)	30W
PU30-30SL	+5V	0.3A	3.0A	3%	+12V	0.3A	1.5A	5%	-5V	0.05A	0.2A	10%	30W
PU30-31SL	+5V	0.3A	3.0A	3%	+12V	0.3A	1.5A	5%	-12V	0.05A	0.2A	10%	30W
PU30-32SL	+5V	0.3A	3.0A	3%	+15V	0.2A	1.5A	5%	-15V	0.05A	0.2A	10%	30W
PU30-32SL	+5V	0.3A	3.0A	3%	+15V	0.2A	1.5A	5%	-12V	0.05A	0.2A	10%	30W

- NOTES: 1. All multiple output models may be operated at no-load without damage. At no-load, output voltage tolerance increases to 10%.
2. Safety agency approvals are the above listed models in PCB format. To order a model with a metallic L-bracket or box, add suffix "B" for L-bracket format or "C" for enclosed format to the model number (mechanical details shown in [page 7-1](#)), e.g. PU30-14SLC.

## 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.
- Weight: 220 grams (PCB format)
- It is strongly recommended to connect the two "\*" marked mounting holes to system chassis through metallic stand-offs. This helps reduce greatly output noise.

## PIN CHART

MODEL	PIN	1	2	3	4	5	6
PU30-10SL PU30-12SL PU30-13SL PU30-14SL		OUTPUT #1	OUTPUT #1	OUTPUT #1	RETURN	RETURN	RETURN
PU30-23SL PU30-24SL PU30-25SL		OUTPUT #1	OUTPUT #1	COMMON RETURN	COMMON RETURN	N.C.	OUTPUT #2
PU30-30SL PU30-31SL PU30-32SL PU30-33SL		OUTPUT #1	OUTPUT #1	COMMON RETURN	COMMON RETURN	OUTPUT #3	OUTPUT #2