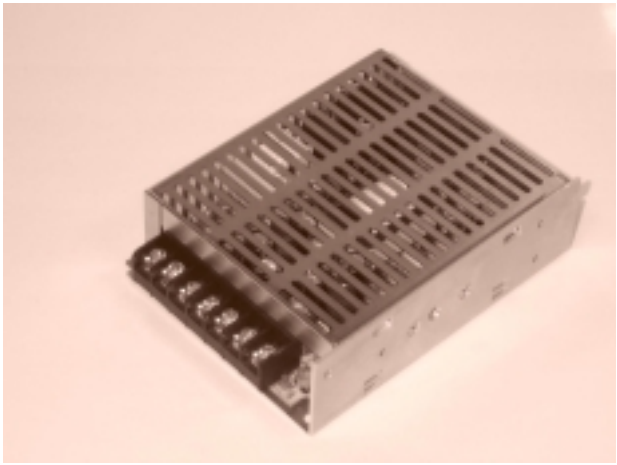
TOTAL POWER INT.
TPS60LB SWITCHING MODE 60W LOW COST BOX TYPE POWER SUPPLY



KEY FEATURES

*Universal input
*Built-in EMI filter
*Low Cost
*Optional constant current change (for single output)

APPLICATIONS

*Telecommunications/Business machines
*Computer peripherals/Medical instruments
*Test & industrial equipments

LECTRICAL SPECIFICATIONS

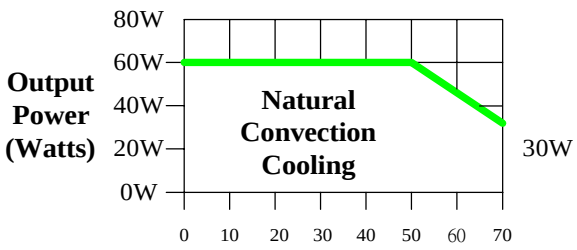
INPUT

*Input range----------90~264 VAC, universal
*Frequency----------47~63Hz
*Inrush current--------30A typical, Cold start @25℃,115VAC
*Efficiency----------65% ~80% typical at full load
*EMI filter---------- FCC Class B conducted, CISPR 22 Class B conducted, EN55022 class B Conducted
*Line regulation----- +/- 0.5% typical

OUTPUT

*Maximum power----60W convection (Refer next page)
*Hold-up time --------10ms typical at full load and 115 VAC nominal line
*Overload protection-Short circuit protection
*Overvoltage protection ----------Main output 20% to 40% above nominal output
*Ripple/Noise -------- +/- 1% Max. @full load (Optional +/-0.5 % per inquiry)

Power Derating Curve



EMI & EMC (IN PROCESS)

*FCC part 15, Class B
*CISPR 22 / EN55022, Class B
*VCCI ,Class 2
*CE , EN61000-3-2 (Class A) and –3 ; EN61000-4-2, -3 , -4 , -5 , -6 and -11

SAFETY APPROVAL (IN PROCESS)

*UL1950 / c UL
*Optional CSA 22.2, LEVEL 3
*TUV EN60950
*Optional UL 2601 (EMI Class A)

ENVIRONMENTAL

*Operating temperature :
0 to 50℃ ambient; derate each output at 2.5% per degree from 50℃ to 70℃
*Humidity:
Operating; non-condensing, 5% to 95%
*Vibration :
10~55 Hz at 1G 3 minutes period, 30 minutes along X, Y and Z axis
*Storage temperature:
-40 to 85℃
*Temperature coefficient:
+/- 0.05% per degree C
*MTBF demonstrated:
>100,000 hours at full load and 25℃ ambient conditions

TOTAL POWER, INT. TEL: 877-646-0900 FAX: 978-453-7395

E-mail: sales@total-power.com http://www.total-power.com

MODEL	OUTPUT VOLTAGE	ADJUSTMENT RANGE	MAXIMUM OUTPUT CURRENT	PEAK OUTPUT CURRENT(NOTE1)	MINIMUM OUTPUT CURRENT	TOTAL REGULATION(NOTE3)	RIPPLE & NOISE %P-P(NOTE2)	PEAK OUTPUT POWER(NOTE1)
SINGLE OUTPUT MODEL SELECTION CHART								
TPS60LB-10	+5V	±10% Typical	12A	15.6A	0A	±3%	±1%	78W Typical
TPS60LB-11	+12V	±10% Typical	5A	6.5A	0A	±3%	±1%	78W Typical
TPS60LB-12	+15V	±10% Typical	4A	5.2A	0A	±3%	±1%	78W Typical
TPS60LB-13	+24V	±10% Typical	2.5A	3.25A	0A	±3%	±1%	78W Typical
TPS60LB-14	+48V	±10% Typical	1.25A	1.63A	0A	±3%	±1%	78W Typical
TPS60LB-15	+3.3V	±10% Typical	12A	15.6A	0A	±5%	±1.5%	78W Typical
DUAL OUTPUT MODEL SELECTION CHART								
TPS60LB-20	+5 V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	+12V	Fixed	3A	3.9A	0.3A	±5%	±1%	
TPS60LB-21	+5 V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	+24V	Fixed	1.3A	1.69A	0.13A	±5%	±1%	
TPS60LB-22	+5 V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	- 5 V	Fixed	6A	7.8A	0.6A	±10%	±1%	
TPS60LB-23	+12V	±10% Typical	2.5A	3.25A	0.25A	±5%	±1%	78W Typical
	-12 V	Fixed	2.5A	3.25A	0.25A	±10%	±1%	
TPS60LB-24	+15 V	±10% Typical	2A	2.6A	0.2A	±5%	±1%	78W Typical
	-15 V	Fixed	2A	2.6A	0.2A	±10%	±1%	
TPS60LB-25	+3.3V	Fixed	7.5A	9.75A	0.75A	±5%	±1.5%	78W Typical
	+12 V	±10% Typical	3A	3.9A	0.3A	±5%	±1%	
TPS60LB-26	+5V	±10% Typical	8A	10.4A	0.8A	±5%	±1%	78W Typical
	+48V	Fixed	0.5A	0.65A	0.05A	±5%	±1%	
TRIPLE OUTPUT MODEL SELECTION CHART								
TPS60LB-30	+ 5V	±10% Typical	5A	6.5A	0.5A	±5%	±1%	78W Typical
	+12V	Fixed	2.5A	3.25A	0.25A	±5%	±1%	
	-5 V	Fixed	1A	1.3A	0.1A	±10%	±1%	
TPS60LB-31	+ 5V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	+12V	Fixed	2.2A	2.86A	0.22A	±5%	±1%	
	-12V	Fixed	0.4A	0.52A	0.04A	±10%	±1%	
TPS60LB-32	+ 5V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	+15V	Fixed	1.6A	2.08A	0.16A	±5%	±1%	
	-15V	Fixed	0.4A	0.52A	0.04A	±10%	±1%	
TPS60LB-33	+ 5V	±10% Typical	7.5A	9.75A	0.75A	±5%	±1%	78W Typical
	+15V	Fixed	1.2A	1.56A	0.12A	±5%	±1%	
	-5 V	Fixed	0.8A	1.04A	0.08A	±10%	±1%	
TPS60LB-34	+ 5V	±10% Typical	7.5A	9.75A	0.75A	±5%	±1%	78W Typical
	+15V	Fixed	1.2A	1.56A	0.12A	±5%	±1%	
	-12V	Fixed	0.4A	0.52A	0.04A	±10%	±1%	
TPS60LB-35	+ 5 V	±10% Typical	5.2A	6.76A	0.52A	±5%	±1%	78W Typical
	+24V	Fixed	1.2A	1.56A	0.12A	±5%	±1%	
	-12V	Fixed	0.4A	0.52A	0.04A	±10%	±1%	
TPS60LB-36	+ 5V	±10% Typical	3A	3.9A	0.3A	±5%	±1%	78W Typical
	+12V	Fixed	3.5A	4.55A	0.35A	±5%	±1%	
	-12V	Fixed	0.4A	0.52A	0.04A	±10%	±1%	
TPS60LB-37	+ 5V	±10% Typical	5.2A	6.67A	0.52A	±5%	±1%	78W Typical
	+12V	Fixed	2A	2.6A	0.2A	±5%	±1%	
	+24V	Fixed	0.4A	0.52A	0.04A	±10%	±1%	
TPS60LB-38	+5V	±10% Typical	4A	5.2A	0.4A	±5%	±1%	78W Typical
	+12V	Fixed	1.5A	1.95A	0.15A	±5%	±1%	
	+48V	Fixed	0.6A	0.78A	0.06A	±10%	±1%	

QUAD OUTPUT MODEL SELECTION CHART

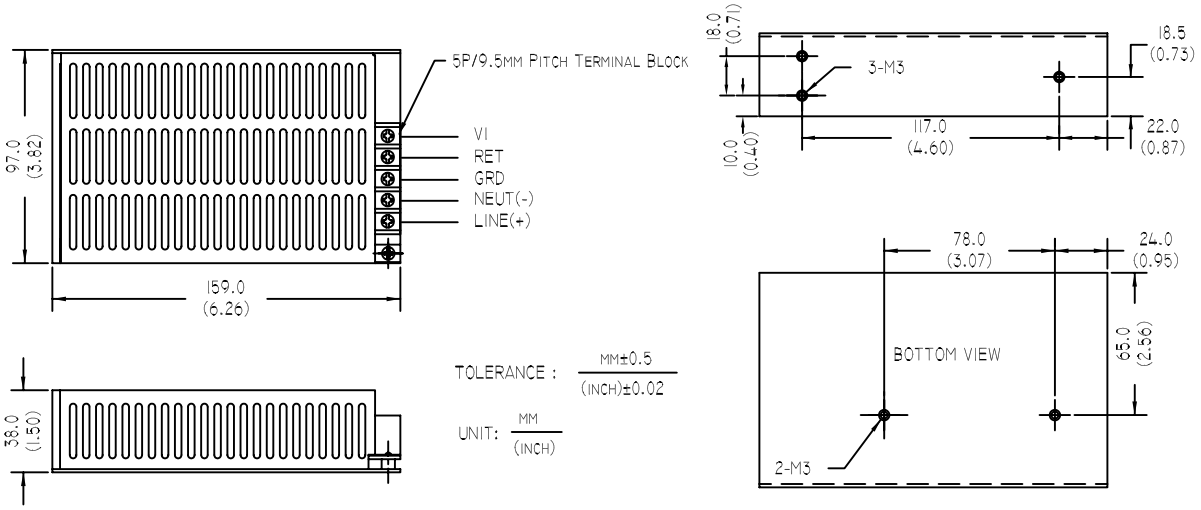
MODEL	OUTPUT VOLTAGE	ADJUSTMENT RANGE	MAXIMUM OUTPUT CURRENT	PEAK OUTPUT CURRENT(NOTE1)	MINIMUM OUTPUT CURRENT	TOTAL REGULATION(NOTE3)	RIPPLE & NOISE %P-P(NOTE2)	PEAK OUTPUT POWER(NOTE1)
TPS60LB-40	+ 5V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	+12V	Fixed	2A	2.6A	0.2A	±5%	±1%	
	- 12V	Fixed	0.4A	0.52A	0.04A	±10%	±1%	
	- 5 V	Fixed	0.4A	0.52A	0.04A	±10%	±1%	
TPS60LB-41	+ 5V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	+12V	Fixed	1.6A	2.08A	0.16A	±5%	±1%	
	- 5 V	Fixed	0.6A	0.78A	0.06A	±10%	±1%	
	- 12V	Fixed	0.6A	0.78A	0.06A	±10%	±1%	
TPS60LB-42	+ 5V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	+12V	Fixed	1A	1.3A	0.1A	±5%	±1%	
	- 15V	Fixed	0.6A	0.78A	0.06A	±10%	±1%	
	+ 15V	Fixed	0.6A	0.78A	0.06A	±10%	±1%	
TPS60LB-43	+ 5 V	±10% Typical	3.3A	4.29A	0.33A	±5%	±1%	78W Typical
	+12V	Fixed	1.5A	1.95A	0.15A	±5%	±1%	
	- 12V	Fixed	0.6A	0.78A	0.06A	±10%	±1%	
	- 15V	Fixed	1.2A	1.56A	0.12A	±10%	±1%	
TPS60LB-44	+ 5V	±10% Typical	3.3A	4.29A	0.33A	±5%	±1%	78W Typical
	+12V	Fixed	0.6A	0.78A	0.06A	±5%	±1%	
	- 12V	Fixed	0.6A	0.78A	0.06A	±10%	±1%	
	+48V	Fixed	0.6A	0.78A	0.06A	±10%	±1%	
TPS60LB-45	+ 5V	±10% Typical	6A	9.75A	0.6A	±5%	±1%	78W Typical
	+12V	Fixed	1A	4.29A	0.1A	±5%	±1%	
	- 12V	Fixed	1A	1.95A	0.1A	±10%	±1%	
	+24V	Fixed	0.5A	1.04A	0.05A	±10%	±1%	
TPS60LB-46	+ 3.3V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	+5V	Fixed	2A	2.6A	0.2A	±5%	±1%	
	+12V	Fixed	2A	2.6A	0.2A	±10%	±1%	
	-12V	Fixed	1A	1.3A	0.1A	±10%	±1%	
TPS60LB-47	+ 3.3V	±10% Typical	6A	7.8A	0.6A	±5%	±1%	78W Typical
	+5V	Fixed	4A	2.6A	0.4A	±5%	±1%	
	+12V	Fixed	1.5A	2.6A	0.15A	±10%	±1%	
	-12V	Fixed	0.6A	1.3A	0.06A	±10%	±1%	

NOTES: 1) Peak loads for lasting <30 seconds with a maximum 10% duty cycle are acceptable. Please contact us if need special peak load.
2) Maximum peak to peak noise expressed as a percentage of output voltage, 20MHz bandwidth, 0.1 μF and 47 μF Cap. on outputs.
3) Loading test conditions are set for all outputs at minimum, middle and maximum of loads. Special cross loading requirement is welcomed.
4) Detailed engineering specification of each model is available for inquiry.
5) Special output voltage/current inquiry is welcomed.
6) Specifications subject to change without notice.

TOTAL POWER INTERNATIONAL

TOLL FREE# 877-646-0900

TPS60LB



TOLERANCE : $\frac{\text{MM}\pm0.5}{(\text{INCH})\pm0.02}$

UNIT: $\frac{\text{MM}}{(\text{INCH})}$