

TOTAL POWER INT'L

TPS150 SWITCHING MODE 130W U CHANNEL POWER SUPPLIES



ELECTRICAL SPECIFICATIONS

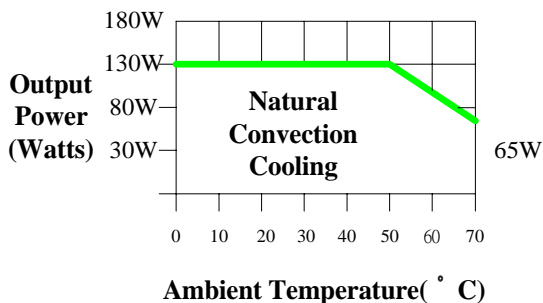
INPUT

- *Input range-----90~264 VAC, auto ranging
- *Frequency-----47~63Hz
- *Inrush current-----40A typical, Cold start @25°C,115VAC
- *Efficiency-----65%~85% 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----130W 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



KEY FEATURES

- *Universal input
- *Built-in EMI filter
- *Optional remote sense on main output
- *Optional constant current charger
- *Optional Power Good signal/Optional cover
- *Optional±12VDC/±24VDC/±48VDC input

APPLICATIONS

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

EMI & EMC

- *FCC part 15, Class B
- *CISPR 22 / EN55022, Class B
- *VCCI ,Class 2
- *CE,EN 61000-3-2 (Class A) (Optional) and -3;
EN 61000-4-2,-3,-4,-5,-6 and -11

SAFETY APPROVAL

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

ENVIRONMENTAL

- *Operating temperature :
0 to 50°C ambient; derate each output at 2.5% per
degree from 50°C to 70°C
- *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°C
- *Temperature coefficient:
+/- 0.05% per degree C
- *MTBF demonstrated:
>100,000 hours at full load and 25°C ambient
conditions

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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								
TPS150-10	+5V	±10% Typical	26A	42A	0A	±3%	±1%	210W Typical
TPS150-11	+12V	±10% Typical	11A	17.6A	0A	±3%	±1%	210W Typical
TPS150-12	+15V	±10% Typical	8.7A	13.9A	0A	±3%	±1%	210W Typical
TPS150-13	+24V	±10% Typical	5.5A	8.8A	0A	±3%	±1%	210W Typical
TPS150-14	+48V	±10% Typical	2.7A	4.3A	0A	±3%	±1%	210W Typical
TPS150-15	+36V	±10% Typical	3.6A	5.8A	0A	±3%	±1%	210W Typical
TPS150-16	+56V	±10% Typical	2.35A	3.8A	0A	±3%	±1%	210W Typical
TPS150-17	+18V	±10% Typical	7.25A	11.6A	0A	±3%	±1%	210W Typical
TPS150-18	+3.3V	±10% Typical	26A	41.6A	0A	±5%	±1.5%	210W Typical
DUAL OUTPUT MODEL SELECTION CHART								
TPS150-20	+5 V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	+12V	Fixed	6.3A	10.1A	0.63A	±5%	±1%	
TPS150-21	+5 V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	+24V	Fixed	3.3A	5.3A	0.33A	±5%	±1%	
TPS150-22	+5 V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	- 5 V	Fixed	15A	24A	1.5A	±5%	±1%	
TPS150-23	+12V	±10% Typical	6.3A	10.1A	0.63A	±5%	±1%	210W Typical
	- 12 V	Fixed	6.3A	10.1A	0.63A	±5%	±1%	
TPS150-24	+15 V	±10% Typical	5A	8A	0.5A	±5%	±1%	210W Typical
	- 15 V	Fixed	5A	8A	0.5A	±5%	±1%	
TPS150-25	+3.3V	±10% Typical	16.5A	26.4A	1.65A	±5%	±1.5%	210W Typical
	+12 V	Fixed	6.3A	10.1A	0.63A	±5%	±1%	
TPS150-26	+ 12V	±10% Typical	7.1A	11.4A	0.71A	±5%	±1%	210W Typical
	+ 24V	Fixed	2.7A	4.3A	0.27A	±5%	±1%	
TPS150-27	+ 10.3V	±10% Typical	6.3A	10.1A	0.63A	±5%	±1%	210W Typical
	+ 24V	Fixed	3.6A	5.8A	0.36A	±5%	±1%	
TPS150-28	+ 5V	±10% Typical	20A	32A	2A	±5%	±1%	210W Typical
	+ 3.3V	Fixed	14.5A	23.2A	1.45A	±5%	±1.5%	
TRIPLE OUTPUT MODEL SELECTION CHART								
TPS150-30	+ 5V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	+12V	Fixed	6A	9.6A	0.6A	±5%	±1%	
	- 5 V	Fixed	0.9A	1.4A	0.09A	±10%	±1%	
TPS150-31	+ 5V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	+12V	Fixed	6A	9.6A	0.6A	±5%	±1%	
	-12V	Fixed	0.9A	1.4A	0.09A	±10%	±1%	
TPS150-32	+ 5V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	+15V	Fixed	4A	6.4A	0.4A	±5%	±1%	
	-15V	Fixed	1A	1.6A	0.1A	±10%	±1%	
TPS150-33	+ 5V	±10% Typical	21A	33.6A	2.1A	±5%	±1%	210W Typical
	+15V	Fixed	3A	4.8A	0.3A	±5%	±1%	
	- 5 V	Fixed	0.9A	1.4A	0.09A	±10%	±1%	
TPS150-34	+ 5V	±10% Typical	19.2A	30.7A	1.92A	±5%	±1%	210W Typical
	+15V	Fixed	3A	4.8A	0.3A	±5%	±1%	
	-12V	Fixed	0.9A	1.4A	0.09A	±10%	±1%	
TPS150-35	+ 5 V	±10% Typical	13.8A	22.1A	1.38A	±5%	±1%	210W Typical
	-12V	Fixed	0.9A	1.4A	0.09A	±5%	±1%	
	+24V	Fixed	3A	4.8A	0.3A	±10%	±1%	
TPS150-36	+ 5V	±10% Typical	13.8A	22.1A	1.38A	±5%	±1%	210W Typical
	+12V	Fixed	6A	9.6A	0.6A	±5%	±1%	
	- 12V	Fixed	1.5A	2.4A	0.15A	±10%	±1%	
TPS150-37	+ 5V	±10% Typical	13.8A	22A	1.38A	±5%	±1%	210W Typical
	+12V	Fixed	5.4A	8.6A	0.54A	±5%	±1%	
	+24V	Fixed	0.8A	1.3A	0.08A	±10%	±1%	
TPS150-38	+ 5V	±10% Typical	6.7A	10.7A	0.67A	±5%	±1%	210W Typical
	+24V	Fixed	1.8A	2.9A	0.18A	±5%	±1%	
	+12V	Fixed	6A	9.6A	0.6A	±10%	±1%	

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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)
TRIPLE OUTPUT MODEL SELECTION CHART								
TPS150-39	+18V	±10% Typical	4A	6.4A	0.4A	±5%	±1%	210W Typical
	-18V	Fixed	4A	6.4A	0.4A	±5%	±1%	
	+5V	Fixed	2A	3.2A	0.2A	±10%	±1%	
QUAD OUTPUT MODEL SELECTION CHART								
TPS150-40	+5V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	+12V	Fixed	5.3A	8.5A	0.53A	±5%	±1%	
	-12V	Fixed	0.8A	1.3A	0.08A	±10%	±1%	
	-5V	Fixed	0.8A	1.3A	0.08A	±10%	±1%	
TPS150-41	+5V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	+12V	Fixed	4.2A	6.7A	0.42A	±5%	±1%	
	-12V	Fixed	1.5A	2.4A	0.15A	±10%	±1%	
	-5V	Fixed	1.5A	2.4A	0.15A	±10%	±1%	
TPS150-42	+5V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	+12V	Fixed	2.7A	4.3A	0.27A	±5%	±1%	
	-15V	Fixed	1.5A	2.4A	0.15A	±10%	±1%	
	+15V	Fixed	1.5A	2.4A	0.15A	±10%	±1%	
TPS150-43	+5V	±10% Typical	9A	14.4A	0.9A	±5%	±1%	210W Typical
	+12V	Fixed	3.5A	5.6A	0.35A	±5%	±1%	
	-12V	Fixed	1.5A	2.4A	0.15A	±10%	±1%	
	-15V	Fixed	3A	4.8A	0.3A	±10%	±1%	
TPS150-44	+5V	±10% Typical	9A	14.4A	0.9A	±5%	±1%	210W Typical
	+12V	Fixed	1.5A	2.4A	0.15A	±5%	±1%	
	-12V	Fixed	1.5A	2.4A	0.15A	±10%	±1%	
	+48V	Fixed	1.5A	2.4A	0.15A	±10%	±1%	
TPS150-45Y	+5V	±10% Typical	15A	24A	1.5A	±5%	±1%	210W Typical
	+12V	Fixed	2A	8.5A	0.2A	±5%	±1%	
	-12V	Fixed	1A	1.6A	0.1A	±10%	±1%	
	+24V	Fixed	1.5A	2.4A	0.15A	±10%	±1%	
TPS150-46	+5V	±10% Typical	4A	6.4A	0.4A	±5%	±1%	210W Typical
	-15V	Fixed	1.25A	2A	0.13A	±5%	±1%	
	+15V	Fixed	0.8A	1.3A	0.08A	±10%	±1%	
	+24V	Fixed	4A	6.4A	0.4A	±10%	±1%	
TPS150-47	+5V	±10% Typical	13A	20.8A	1.3A	±5%	±1%	210W Typical
	+15V	Fixed	1.1A	1.76A	0.11A	±5%	±1%	
	-15V	Fixed	1.1A	1.76A	0.11A	±10%	±1%	
	+48V	Fixed	1.1A	1.76A	0.11A	±10%	±1%	
TPS150-48	+5V	±10% Typical	12.5A	20A	1.25A	±5%	±1%	210W Typical
	+3.3V	Fixed	9A	14.4A	0.9A	±5%	±1.5%	
	+12V	Fixed	2.5A	4A	0.25A	±10%	±1%	
	-12V	Fixed	2.5A	4A	0.25A	±10%	±1%	
TPS150-49	+5V	±10% Typical	12.5A	20A	1.25A	±5%	±1%	210W Typical
	+3.3V	Fixed	9A	14.4A	0.9A	±5%	±1.5%	
	+12V	Fixed	2.5A	4A	0.25A	±10%	±1%	
	+24V	Fixed	1A	1.6A	0.1A	±10%	±1%	

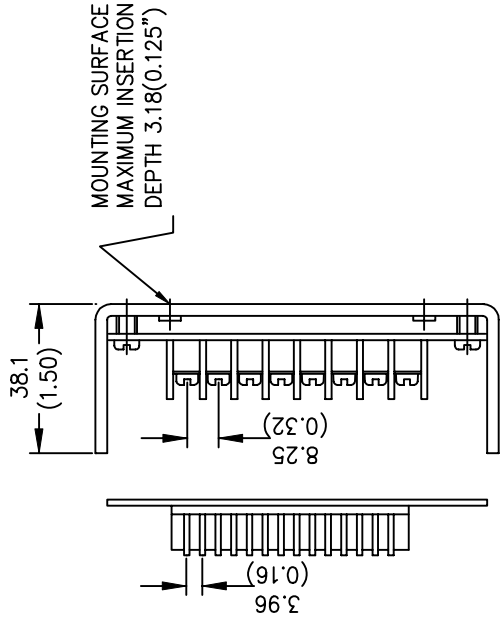
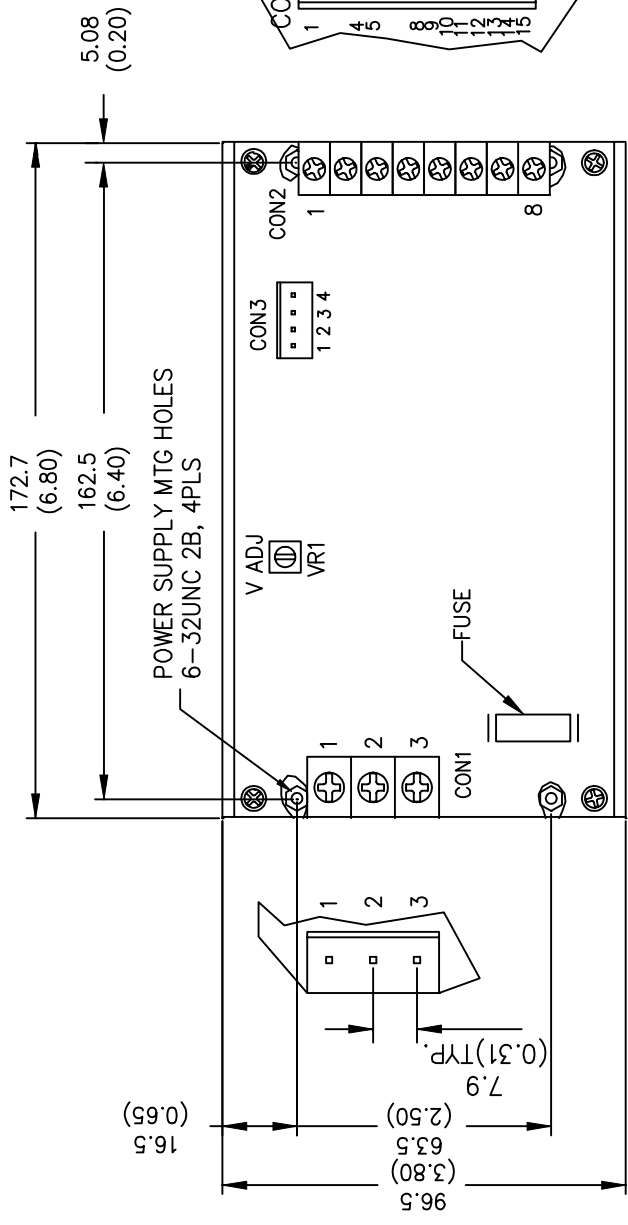
- NOTES:**
- 1) Peak loads for lasting <30 seconds with a maximum 10% duty cycle are acceptable. Please contact us if need special peak load.
 - 2) Maximum peak to peak noise expressed as a percentage of output voltage, 20MHz bandwidth, 0.1 μ F and 47 μ F Cap. on outputs.
 - 3) Loading test conditions 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.
 - 7) 25% derated if 24 VDC input version; 50% derated, if 12 VDC input version; 25% derated if additional cover.

PPS150

TERMINAL BLOCKS
 CON1: PITCH=9.5 mm
 CON2: PITCH=8.25 mm

CON1=CONNECTOR, MOLEX#09-65-2058(OR EQUIVALENT)
 (MATING CONECT.=MOLEX#09-50-3051)
 CON2=CONNECTOR, MOLEX#09-65-2158(OR EQUIVALENT)
 (MATING CONECT.=MOLEX#09-50-3151)
 ALL MATING TERMINAL=MOLEX#08-50-0106(OR EQUIVALENT)

CON3=CONNECTOR, MOLEX#22-27-2041(OR EQUIVALENT)
 (MATING CONECT.=MOLEX#22-01-3047)
 MATING TERMINAL=MOLEX#08-50-0113(OR EQUIVALENT)



TOLERANCE : $\frac{\text{mm} \pm 0.5}{(\text{inch}) \pm 0.02}$
 UNIT: $\frac{\text{mm}}{(\text{inch})}$

CON1 (CONNECTORS) CONFIGURATION

1	2	3
FG	NEUT(-)	LINE(+)

CON1 (TERMINAL BLOCK) CONFIGURATION

1	2	3
FG	NEUT(-)	LINE(+)

CON2 (TERMINAL BLOCK) CONFIGURATION FOR V4 ISOLATED

1	2	3	4	5	6	7	8
Multiple Output	V1	RET	V2	V3	V4	RET	V4

CON2 (TERMINAL BLOCK) CONFIGURATION FOR V4 POSITIVE

1	2	3	4	5	6	7	8
Multiple Output	V1	RET	V2	V3	RET	V4	V4(+)

CON2 (TERMINAL BLOCK) CONFIGURATION FOR V4 NEGATIVE

1	2	3	4	5	6	7	8
Multiple Output	V1	RET	V2	V3	V4(-)	RET	RET

CON2 (TERMINAL BLOCK) CONFIGURATION

1-4	5-8	
Single Output	V1(+)	RET(-)

CON2 (CONNECTORS) CONFIGURATION FOR V4 ISOLATED

Multiple Output	1-4	5-10	11	12	13	14-15
	V1	RET	V2	V3	V4	RET

CON2 (CONNECTORS) CONFIGURATION FOR V4 POSITIVE

Multiple Output	1-4	5-10	11	12	13	14-15
	V1	RET	V2	V3	RET	V4(+)

CON2 (CONNECTORS) CONFIGURATION FOR V4 NEGATIVE

Multiple Output	1-4	5-10	11	12	13	14-15
	V1	RET	V2	V3	V4(-)	RET

CON2 (CONNECTORS) CONFIGURATION

Single Output	1-8	9-15
	V1(+)	RET(-)

CON3 CONFIGURATION

1	2	3	4
S-	S+	RET	PG