



## KEY FEATURES

- \*Universal input
- \*Built-in EMI filter
- \*Optional  $\pm 12\text{VDC}/\pm 24\text{VDC}/\pm 48\text{VDC}$  input
- \*Optional cover

## APPLICATIONS

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

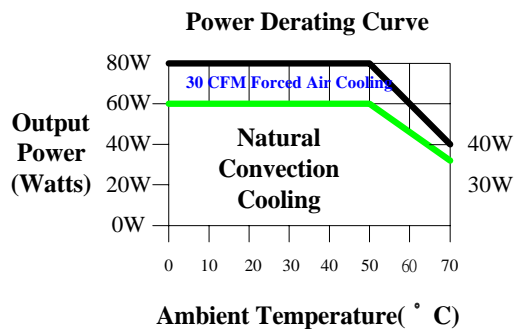
## ELECTRICAL SPECIFICATIONS

### INPUT

- \*Input range-----90~264 VAC, universal
- \*Frequency-----47~63Hz
- \*Inrush current-----35A typical, Cold start @25°C, 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----80W with 30 CFM forced air  
(Refer next page)
- \*Hold-up time -----10ms typical at full load and 115 VAC  
nominal line
- \*Overload protection-Short circuit  
protection
- \*Overvoltage  
protection -----Main out put 20% to 40% above  
nominal output
- \*Ripple/Noise ----- +/- 1% Max. @full load  
(Optional +/-0.5 % per inquiry)



## EMI & EMC

- \*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

- \*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

**TPS80 SWITCHING MODE 80W U CHANNEL POWER SUPPLIES**

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)
<b>TPS80-10</b>	+5V	±10% Typical	16A	20A	0A	±3%	±1%	100W Typical
<b>TPS80-11</b>	+12V	±10% Typical	6.6A	8.3A	0A	±3%	±1%	100W Typical
<b>TPS80-12</b>	+15V	±10% Typical	5.3A	6.6A	0A	±3%	±1%	100W Typical
<b>TPS80-13</b>	+24V	±10% Typical	3.3A	4.1A	0A	±3%	±1%	100W Typical
<b>TPS80-14</b>	+48V	±10% Typical	1.7A	2.1A	0A	±3%	±1%	100W Typical
<b>TPS80-15</b>	+36V	±10% Typical	2.2A	2.8A	0A	±3%	±1%	100W Typical
<b>TPS80-17</b>	+3.3V	±10% Typical	24A	26.3A	2.4A	±5%	±1.5%	100W Typical

**DUAL OUTPUT MODEL SELECTION CHART**

<b>TPS80-20</b>	+5 V	±10% Typical	8A	10A	0.8A	±5%	±1%	100W Typical
	+12V	Fixed	4A	5A	0.4A	±5%	±1%	
<b>TPS80-21</b>	+5 V	±10% Typical	8A	10A	0.8A	±5%	±1%	100W Typical
	+24V	Fixed	1.7A	2.1A	0.17A	±5%	±1%	
<b>TPS80-22</b>	+5 V	±10% Typical	8A	10A	0.8A	±5%	±1%	100W Typical
	- 5 V	Fixed	8A	10A	0.8A	±10%	±1%	
<b>TPS80-23</b>	+12V	±10% Typical	3.3A	4.1A	0.33A	±5%	±1%	100W Typical
	-12 V	Fixed	3.3A	4.1A	0.33A	±10%	±1%	
<b>TPS80-24</b>	+15 V	±10% Typical	2.7A	3.4A	0.27A	±5%	±1%	100W Typical
	-15 V	Fixed	2.7A	3.4A	0.27A	±10%	±1%	
<b>TPS80-25</b>	+3.3V	±10% Typical	10A	12.5A	1A	±5%	±1.5%	100W Typical
	+12 V	Fixed	4A	5A	0.4A	±5%	±1%	
<b>TPS80-26</b>	+12V	±10% Typical	4A	5A	0.4A	±5%	±1%	100W Typical
	+24V	Fixed	1.3A	1.6A	0.13A	±10%	±1%	
<b>TPS80-27Y</b>	+5V	±10% Typical	8A	10.4A	0.8A	±5%	±1%	100W Typical
	+15V	Fixed	3.2A	4A	0.32A	±10%	±1%	
<b>TPS80-28</b>	+12.5V	±10% Typical	4.5A	5.6A	0.45A	±5%	±1%	100W Typical
	+16V	Fixed	1.5A	1.8A	0.15A	±10%	±1%	
<b>TPS80-29</b>	+3.3V	±10% Typical	16A	20A	1.6A	±5%	±1.5%	100W Typical
	+5V	Fixed	6A	7.5A	0.6A	±5%	±1%	

**TRIPLE OUTPUT MODEL SELECTION CHART**

<b>TPS80-30</b>	+ 5V	±10% Typical	8A	10A	0.8A	±5%	±1%	100W Typical
	+12V	Fixed	5A	6.3A	0.5A	±5%	±1%	
	- 5V	Fixed	1A	1.3A	0.1A	±10%	±1%	
<b>TPS80-31</b>	+ 5V	±10% Typical	8A	10A	0.8A	±5%	±1%	100W Typical
	+12V	Fixed	2.9A	3.6A	0.29A	±5%	±1%	
	-12V	Fixed	0.5A	0.6A	0.05A	±10%	±1%	
<b>TPS80-32</b>	+ 5V	±10% Typical	8A	10A	0.8A	±5%	±1%	100W Typical
	+15V	Fixed	2.2A	2.8A	0.22A	±5%	±1%	
	-15V	Fixed	0.5A	0.6A	0.05A	±10%	±1%	
<b>TPS80-33</b>	+ 5V	±10% Typical	10A	12.5A	1A	±5%	±1%	100W Typical
	+15V	Fixed	1.6A	2A	0.16A	±5%	±1%	
	-5 V	Fixed	1A	1.3A	0.1A	±10%	±1%	
<b>TPS80-34</b>	+ 5V	±10% Typical	10A	12.5A	1A	±5%	±1%	100W Typical
	+15V	Fixed	1.6A	2A	0.16A	±5%	±1%	
	-12V	Fixed	0.5A	0.6A	0.05A	±10%	±1%	
<b>TPS80-35</b>	+ 5 V	±10% Typical	7A	8.8A	0.7A	±5%	±1%	100W Typical
	+24V	Fixed	1.6A	2A	0.16A	±5%	±1%	
	-12V	Fixed	0.5A	0.6A	0.05A	±10%	±1%	
<b>TPS80-36</b>	+ 5V	±10% Typical	7A	8.8A	0.7A	±5%	±1%	100W Typical
	+12V	Fixed	3.2A	4A	0.32A	±5%	±1%	
	-12V	Fixed	0.5A	0.6A	0.05A	±10%	±1%	
<b>TPS80-37</b>	+ 5V	±10% Typical	7A	8.8A	0.7A	±5%	±1%	100W Typical
	+12V	Fixed	2.8A	3.5A	0.28A	±5%	±1%	
	+24V	Fixed	0.5A	0.6A	0.05A	±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)
<b>TRIPLE OUTPUT MODEL SELECTION CHART</b>								
TPS80-38	+15V	±10% Typical	2A	2.5A	0.2A	±5%	±1%	100W Typical
	-15V	Fixed	2A	2.5A	0.2A	±10%	±1%	
	+5V	Fixed	4A	5A	0.4A	±10%	±1%	
TPS80-39	+12V	±10% Typical	1.5A	1.8A	0.15A	±5%	±1%	100W Typical
	-12V	Fixed	1.5A	1.8A	0.15A	±5%	±1%	
	+28V	Fixed	1.6A	2A	0.16A	±10%	±1%	
<b>QUAD OUTPUT MODEL SELECTION CHART</b>								
TPS80-40	+5V	±10% Typical	8A	10A	0.8A	±5%	±1%	100W Typical
	+12V	Fixed	2.6A	3.3A	0.26A	±5%	±1%	
	-12V	Fixed	0.5A	0.6A	0.05A	±10%	±1%	
	-5V	Fixed	0.5A	0.6A	0.05A	±10%	±1%	
TPS80-41	+5V	±10% Typical	8A	10A	0.8A	±5%	±1%	100W Typical
	+12V	Fixed	2.2A	2.8A	0.22A	±5%	±1%	
	-5V	Fixed	0.8A	1A	0.08A	±10%	±1%	
TPS80-42	+5V	±10% Typical	8A	10A	0.8A	±5%	±1%	100W Typical
	+12V	Fixed	1.3A	1.6A	0.13A	±5%	±1%	
	-15V	Fixed	0.8A	1A	0.08A	±10%	±1%	
	+15V	Fixed	0.8A	1A	0.08A	±10%	±1%	
TPS80-43	+5V	±10% Typical	4.5A	5.6A	0.45A	±5%	±1%	100W Typical
	+12V	Fixed	2A	2.5A	0.2A	±5%	±1%	
	-12V	Fixed	0.8A	1A	0.08A	±10%	±1%	
	+15V	Fixed	1.6A	2A	0.16A	±10%	±1%	
TPS80-44	+5V	±10% Typical	4.5A	5.6A	0.45A	±5%	±1%	100W Typical
	+12V	Fixed	0.8A	1A	0.08A	±5%	±1%	
	-12V	Fixed	0.8A	1A	0.08A	±10%	±1%	
	+48V	Fixed	0.8A	1A	0.08A	±10%	±1%	
TPS80-45Y	+5V	±10% Typical	8A	10.4A	0.8A	±5%	±1%	100W Typical
	+12V	Fixed	0.8A	1.04A	0.08A	±5%	±1%	
	-12V	Fixed	0.8A	1.04A	0.08A	±10%	±1%	
	+24V	Fixed	0.8A	1.04A	0.08A	±10%	±1%	
TPS80-46Y	+5V	±10% Typical	8A	10.4A	0.8A	±5%	±1%	100W Typical
	+15V	Fixed	0.8A	1.04A	0.08A	±5%	±1%	
	-15V	Fixed	0.8A	1.04A	0.08A	±10%	±1%	
	+48V	Fixed	0.8A	1.04A	0.08A	±10%	±1%	
TPS80-47Y	+5V	±10% Typical	4A	5.2A	0.4A	±5%	±1%	100W Typical
	+12V	Fixed	1.4A	1.8A	0.14A	±5%	±1%	
	-12V	Fixed	1.4A	1.8A	0.14A	±10%	±1%	
	+36V	Fixed	0.8A	1.04A	0.08A	±10%	±1%	
TPS80-48Y	+5V	±10% Typical	8A	10.4A	0.8A	±5%	±1%	100W Typical
	+15V	Fixed	0.8A	1.04A	0.08A	±5%	±1%	
	-15V	Fixed	0.8A	1.04A	0.08A	±10%	±1%	
	+24V	Fixed	0.8A	1.04A	0.08A	±10%	±1%	
TPS80-49Y	+3.3V	±10% Typical	7A	15A	0.7A	±5%	±1.5%	100W Typical
	+5V	Fixed	5A	6.2A	0.5A	±5%	±1%	
	+12V	Fixed	2.5A	6.2A	0.25A	±10%	±1%	
	-5V	Fixed	1A	3.7A	0.1A	±10%	±1%	

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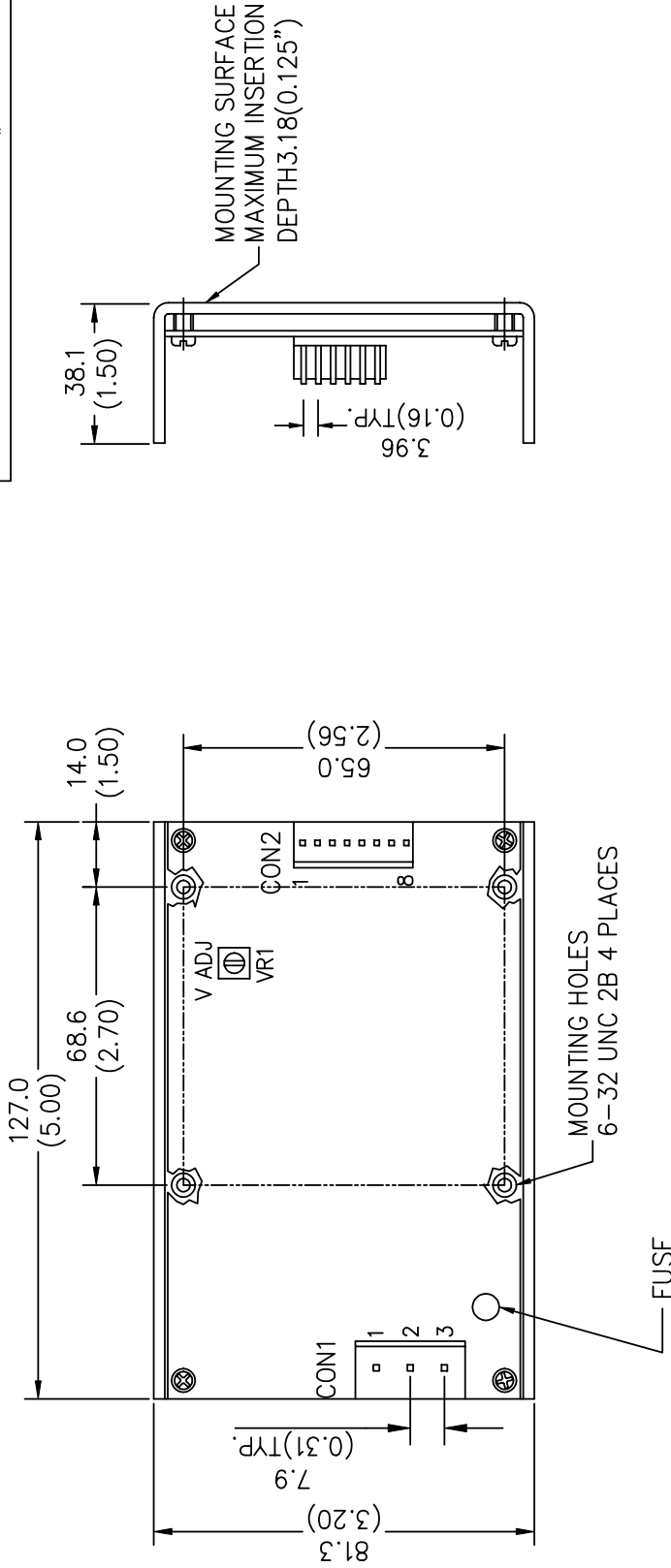
MODEL	OUTPUT VOLTAGE	ADJUSTMENT RANGE	MAXIMUM OUTPUT CURRENT	PEAK OUTPUT CURRENT(NOTE1)	MINIMUM OUTPUT CURRENT	TOTAL REGULATION(NOTE3)	RIPPLE & NOISE %P-P(NOTE2)	PEAK OUTPUT POWER(NOTE1)
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- NOTES:** 1) Peak loads for lasting <30 seconds with a maximum 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, input not less nominal line, 0.1  $\mu$  F and 47  $\mu$  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.

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PPS80

CON1=CONNECTOR,MOLEX#09-65-2058(OR EQUIVALENT)  
 (MATING CONNECT.=MOLEX#09-50-3051)  
 CON2=CONNECTOR,MOLEX#09-65-2088(OR EQUIVALENT)  
 (MATING CONNECT.=MOLEX#09-50-3081)  
 ALL MATING TERMINAL=MOLEX#08-50-0106(OR EQUIVALENT)



CON1 ( CONNECTORS ) CONFIGURATION

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

CON2 ( CONNECTORS ) CONFIGURATION FOR V4 ISOLATED

Multiple Output	1	2-3	4-5	6	7	8
	V2	V1	RET	V3	V4	V4RET

CON2 ( CONNECTORS ) CONFIGURATION FOR V4 POSITIVE

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

CON2 ( CONNECTORS ) CONFIGURATION FOR V4 NEGATIVE

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

CON2 ( CONNECTORS ) CONFIGURATION

Single Output	1-3	4-6	7-8
	V1(+)	RET(-)	NC

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

UNIT:  $\frac{\text{mm}}{(\text{inch})}$