Total Power International, Inc.

TPSBU81 SERIES

80W Open Frame Type
I.T.E. Power Supplies

Features:

- Wide Operating Voltage 90 to 260 VAC,47 to 63 Hz
- Internal EMI filter
- Dual and Triple Output
- Active Power Factor Correction
- Over Voltage Protection (Crowbar Design)
- Class I
- 2 year warranty



Electrical Characteristics:

Vin	Safety Approvals Input Voltage Range		100~240VAC
	Operate Voltage Range		90~260VAC
fin	Input Frequency		47~63Hz
PF	Power Factor Correction	Io=Full load, Vin=240VAC	0.95~1
Po	Output Power Range		See rating chart
Vo	Output Voltage Range		See rating chart
Io	Output Current Range		See rating chart
Iil	Input Current (Low Line)	Io=Full load, Vin=100VAC	2.0A (max.)
Iih	Input Current (High Line)	Io=Full load, Vin=240VAC	2.0A (max.)
Ir	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC	45A (max.)
	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC	90A (max.)
Eff	Efficiency	Io=Full Load, Vin=230VAC	70~85%
REG-i	Line Regulation	Io=Full Load	0.5~1%
REG-o	Load Regulation	Vin=230VAC	5~7%
OVP	Over Voltage Protection	Over Voltage Protection	112~132%
OCP	Over Current Protection	Over Current Protection	110~150%
Ttr	Time of Transient Response	Io=Full Load to Half Load, Vin=100VAC	4mS (max.)
Th	Hold-Up Time	Io=Full Load, Vin=110VAC	16mS (min.)
Ts	Start Up Time	Io=Full Load, Vin=100VAC	3S (max.)
Vp-p	Ripple & Noise(Peak to Peak)	Full Load, Vin=90VAC	1% (max.)
Ilk	Safety Ground Leakage Current	Vin=240VAC/60Hz	0.75mA (max.)
TC	Temperature Coefficient	All output	±0.04%/°C
Pno	No-Load Power Consumption	No load, Vin=230VAC	See rating chart
Vps	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	4242VDC (min.)
Vpg	Dielectric Withstanding Voltage for Primary to PE	Primary to PE	2594VDC (min.)
Ris	Isolation Resistance	Test Voltage=500VDC	50MΩ (min.)

Note: The Ripple & Noise which is under 3.3VDC at 2% max

Environmental

To	Operating Temperature	See derating curve
Ts	Storage Temperature	-40~85°C
Ho	Operating Humidity	0~95%
Hr	Storage Humidity	0~95%
MTBF	Operating Temperature at 25°C , Calculated per MIL-HDBK-217F	0.1M Hrs (min.)
Pd	Derate linearly from 100% load at 50°C to 50% load at 70°C	

Application:

- Industrial PC
- Electrical Test & Measurement Instruments
- Communication equipment
- AV equipment

Safety Approvals:

c UL us CE CB

RoHS 2002/95/EC COMPLIANT

UL/c-UL(UL 60950-1:2nd Edition)
TUV/GS(EN 60950-1:2nd Edition)

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Output Voltage And Current Rating Chart (Multi Output) :

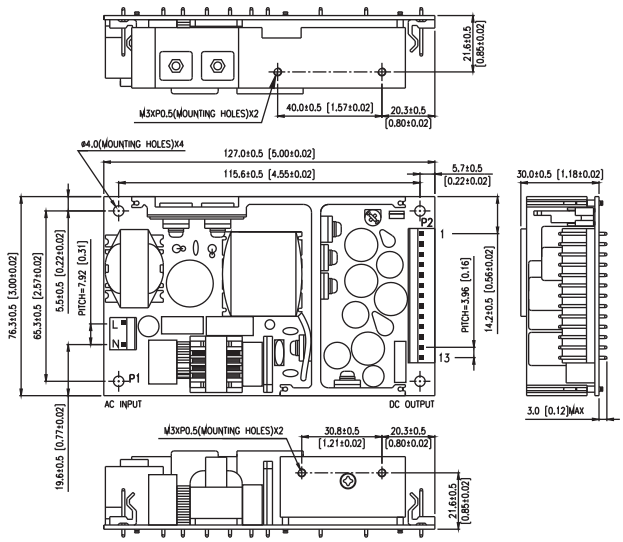
Model Number	Output #1				Output #2				Output #3				Max. Output Power	Pno(max.)
	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax		
TPSBU81-200	+3.3V	1.2A	12A	7%	+12V	0.5A	5A	5%					80W	6W
TPSBU81-201	+5V	1.2A	12A	5%	+12V	0.5A	5A	5%					80W	6W
TPSBU81-202	+5V	1.2A	12A	5%	+15V	0.5A	5A	5%					80W	6W
TPSBU81-203	+5V	1.2A	12A	5%	+24V	0.3A	3A	5%					80W	6W
TPSBU81-204	+3.3V	1.2A	12A	7%	+5V	0.5A	5A	5%					64.6W	6W
TPSBU81-215	+5V	1.2A	12A	5%					-24V	0A	2A	5%	80W	6W
TPSBU81-300	+3.3V	1.2A	12A	7%	+12V	0.5A	5A	5%	-12V	0A	0.8A	5%	80W	6W
TPSBU81-300-1	+3.3V	1.2A	12A	7%	+12V	0.5A	5A	5%	+12V	0A	0.8A	5%	80W	6W
TPSBU81-301	+5V	1.2A	12A	5%	+12V	0.5A	5A	5%	-5V	0A	0.8A	5%	80W	6W
TPSBU81-301-1	+5V	1.2A	12A	5%	+12V	0.5A	5A	5%	+5V	0A	0.8A	5%	80W	6W
TPSBU81-302	+5V	1.2A	12A	5%	+12V	0.5A	5A	5%	-12V	0A	0.8A	5%	80W	6W
TPSBU81-302-1	+5V	1.2A	12A	5%	+12V	0.5A	5A	5%	+12V	0A	0.8A	5%	80W	6W
TPSBU81-303	+5V	1.2A	12A	5%	+15V	0.5A	5A	5%	-15V	0A	0.8A	5%	80W	6W
TPSBU81-303-1	+5V	1.2A	12A	5%	+15V	0.5A	5A	5%	+15V	0A	0.8A	5%	80W	6W
TPSBU81-304	+5V	1.2A	12A	5%	+24V	0.3A	3A	5%	-24V	0A	0.8A	5%	80W	6W
TPSBU81-304-1	+5V	1.2A	12A	5%	+24V	0.3A	3A	5%	+24V	0A	0.8A	5%	80W	6W
TPSBU81-305	+5V	1.2A	12A	5%	+24V	0.3A	3A	5%	-12V	0A	0.8A	5%	80W	6W
TPSBU81-305-1	+5V	1.2A	12A	5%	+24V	0.3A	3A	5%	+12V	0A	0.8A	5%	80W	6W
TPSBU81-306	+3.3V	1.2A	12A	7%	+12V	0.5A	5A	5%	-5V	0A	0.8A	5%	80W	6W
TPSBU81-306-1	+3.3V	1.2A	12A	7%	+12V	0.5A	5A	5%	+5V	0A	0.8A	5%	80W	6W
TPSBU81-307	+5V	1.2A	12A	5%	+10V	0.5A	5A	5%	-10V	0A	1.0A	5%	80W	6W
TPSBU81-307-1	+5V	1.2A	12A	5%	+10V	0.5A	5A	5%	+10V	0A	1.0A	5%	80W	6W
TPSBU81-308	+3.3V	1.2A	12A	7%	+5V	0.5A	5A	5%	-12V	0A	1.0A	5%	76.6W	6W
TPSBU81-308-1	+3.3V	1.2A	12A	7%	+5V	0.5A	5A	5%	+12V	0A	1.0A	5%	76.6W	6W

PIN CHART

PIN / MODEL	1	2	3	4	5	6	7	8	9	10	11	12	13
TPSBU81-215	N/C	N/C	Vo1	Vo1	Vo1	Vo1	COM	COM	COM	Vo3	COM	COM	N/C
TPSBU81-2XX	Vo2	Vo2	Vo1	Vo1	Vo1	Vo1	COM	COM	COM	N/C	COM	COM	N/C
TPSBU81-3XX	Vo2	Vo2	Vo1	Vo1	Vo1	Vo1	COM	COM	COM	Vo3	COM	COM	N/C

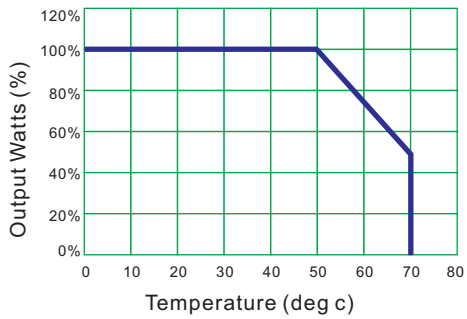
Note: Vo1:Output#1 Vo2:Output#2 Vo3:Output#3

Mechanical Specifications:



Note:
1. Dimensions are shown in inches or mm .
2. Weight: 350gs approx.
3. Input connector mates with Molex housing 09-52-4034 and Molex 2478 series crimp terminal.
4. Output connector mates with Molex housing 09-52-4134 and Molex 2478 series crimp terminal.

Derating Curve :



1. Operating Temperature: 0 to 70°C
2. Derate linearly from 100% load at 50°C to 50% load at 70°C