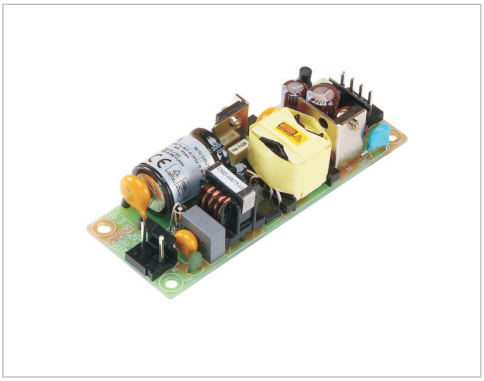
Total Power International, Inc.

TPSBU31 SERIES

30W Open Frame Type
I.T.E. Power Supplies

Features:

- Wide Operating Voltage 90 to 264 VAC,47 to 63 Hz
- Internal EMI filter
- Input Surge Current, Over Voltage and Over Load protection
- Single Output
- Class I
- 2 year warranty



Electrical Characteristics:

Vin	Safety Approvals Input Voltage Range		100~240VAC
	Operate Voltage Range		90~264VAC
fin	Input Frequency		47~63Hz
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	0.8A
Iih	Input Current (High Line)	Io=Full load, Vin=240VAC	0.5A
Ir	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC	18A (max.)
	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC	36A (max.)
Eff	Efficiency	Io=Full Load, Vin=230VAC	78~88%
REG-i	Line Regulation	Io=Full Load	0.5~1%
REG-o	Load Regulation	Vin=230VAC	3~5%
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	12mS (min.)
Ts	Start Up Time	Io=Full Load, Vin=100VAC	2S (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	2506VDC (min.)
Ris	Isolation Resistance	Test Voltage=500VDC	50MΩ (min.)

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 40°C to 50% load at 70°C	

Application:

- Monitor
- Industrial PC
- Set-top box
- AV equipment
- CCD recorder

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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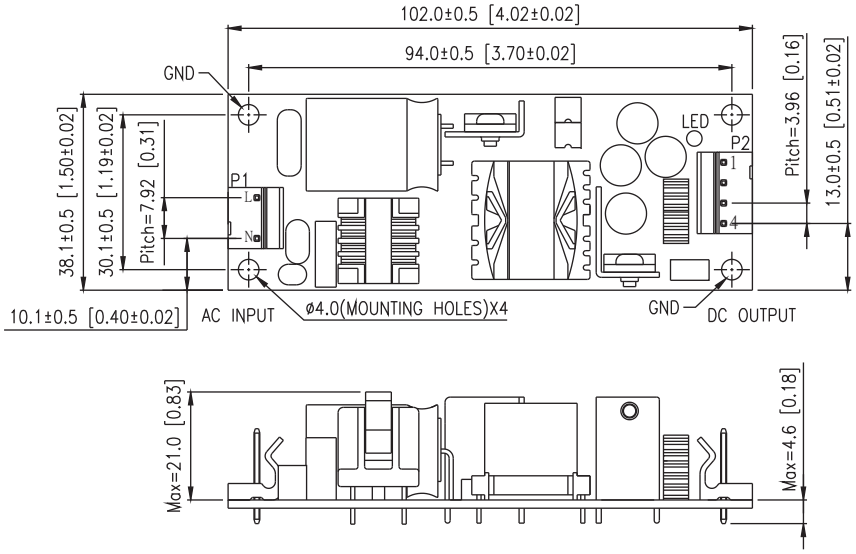
Output Voltage And Current Rating Chart (Single Output) :

Model Number	Output Voltage	Output Current	Total Regulation	Max. Output Power	Pno (max.)
TPSBU31-102	5 ~ 6 VDC	4.00 ~ 3.33 A	5%	20W	0.3W
TPSBU31-103	6 ~ 8 VDC	3.83 ~ 2.87 A	5%	23W	0.3W
TPSBU31-104	8 ~ 11 VDC	3.38 ~ 2.45 A	5%	27W	0.3W
TPSBU31-105	11 ~ 13 VDC	2.73 ~ 2.30 A	5%	30W	0.3W
TPSBU31-106	13 ~ 16 VDC	2.30 ~ 1.88 A	5%	30W	0.3W
TPSBU31-107	16 ~ 21 VDC	1.88 ~ 1.43 A	5%	30W	0.3W
TPSBU31-108	21 ~ 27 VDC	1.43 ~ 1.11 A	3%	30W	0.3W
TPSBU31-109	27 ~ 33 VDC	1.11 ~ 0.91 A	3%	30W	0.3W
TPSBU31-110	33 ~ 40 VDC	0.91 ~ 0.75 A	3%	30W	0.3W
TPSBU31-111	40 ~ 48 VDC	0.75 ~ 0.62 A	3%	30W	0.3W

PIN CHART

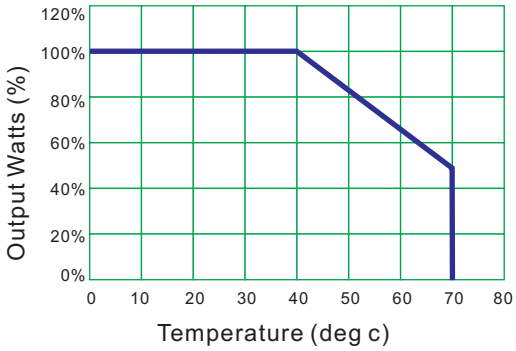
PIN / MODEL	1	2	3	4
TPSBU31-1XX	OUT	OUT	RTN	RTN

Mechanical Specifications:



Note:
1. Dimensions are shown in mm.
2. Weight: 85gs approx.
3. Input connector mates with Molex housing 09-50-3031 and Molex 2478 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3041 and Molex 2478 series crimp terminal.

Derating Curve :



1. Operating Temperature: 0 to 70°C
2. Derate linearly from 100% load at 40°C to 50% load at 70°C