

# TPIUU100 SERIES

100W U Bracket Type  
Industrial Power Supplies

## Features:

- Wide Operating Voltage 90 to 260 VAC, 47 to 63 Hz
- Internal EMI filter
- Single Output
- Active Power Factor Correction
- Over Voltage Protection (Crowbar Design)
- Operating temperature -20~70°C
- Class I
- 3 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 | 50A (max.)       |
|       | High Line Inrush Current                                 | Io=Full load, 25°C, Cool start, Vin=230VAC | 100A (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                                 | 2~5%             |
| 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                   | 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  US  CB



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



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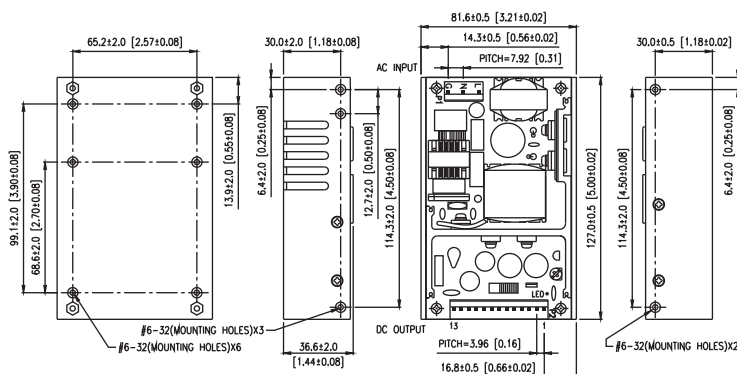
## Output Voltage And Current Rating Chart ( Single Output ) :

| Model Number | Output Voltage | Output Current  | Total Regulation | Max. Output Power | Pno (max.) |
|--------------|----------------|-----------------|------------------|-------------------|------------|
| TPIUU100-101 | 3 ~ 5 VDC      | 18.00 ~ 10.80 A | 5%               | 54W               | 6W         |
| TPIUU100-102 | 5 ~ 6 VDC      | 14.00 ~ 11.66 A | 5%               | 70W               | 6W         |
| TPIUU100-103 | 6 ~ 9 VDC      | 13.33 ~ 8.88 A  | 5%               | 80W               | 6W         |
| ITPUU100-104 | 9 ~ 11 VDC     | 11.11 ~ 9.09 A  | 5%               | 100W              | 6W         |
| TPIUU100-105 | 11 ~ 13 VDC    | 9.09 ~ 7.69 A   | 3%               | 100W              | 6W         |
| TPIUU100-106 | 13 ~ 16 VDC    | 7.69 ~ 6.25 A   | 3%               | 100W              | 6W         |
| TPIUU100-107 | 16 ~ 21 VDC    | 6.25 ~ 4.76 A   | 3%               | 100W              | 6W         |
| TPIUU100-108 | 21 ~ 27 VDC    | 4.76 ~ 3.70 A   | 2%               | 100W              | 6W         |
| TPIUU100-109 | 27 ~ 33 VDC    | 3.70 ~ 3.03 A   | 2%               | 100W              | 6W         |
| TPIUU100-110 | 33 ~ 40 VDC    | 3.03 ~ 2.50 A   | 2%               | 100W              | 6W         |
| TPIUU100-111 | 40 ~ 50 VDC    | 2.50 ~ 2.00 A   | 2%               | 100W              | 6W         |

## PIN CHART

| PIN MODEL    | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| TPIUU100-1XX | OUT | OUT | OUT | OUT | OUT | OUT | RTN | RTN | RTN | RTN | RTN | RTN | N/C |

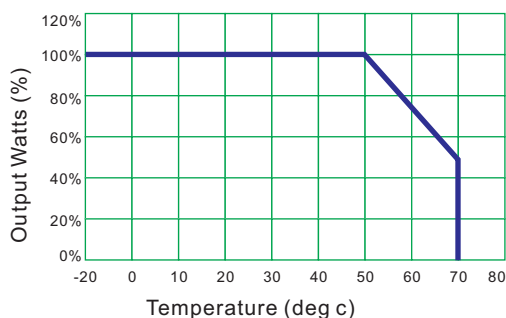
## Mechanical Specifications:



### Note:

1. Dimensions are shown in mm.
2. Weight: 475gs approx.
3. Input connector mates with Molex housing 09-52-4054 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: -20 to 70°C
2. Derate linearly from 100% load at 50°C to 50% load at 70°C

