

# TPSUU80 SERIES

80W U Bracket 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  US  



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 ) :

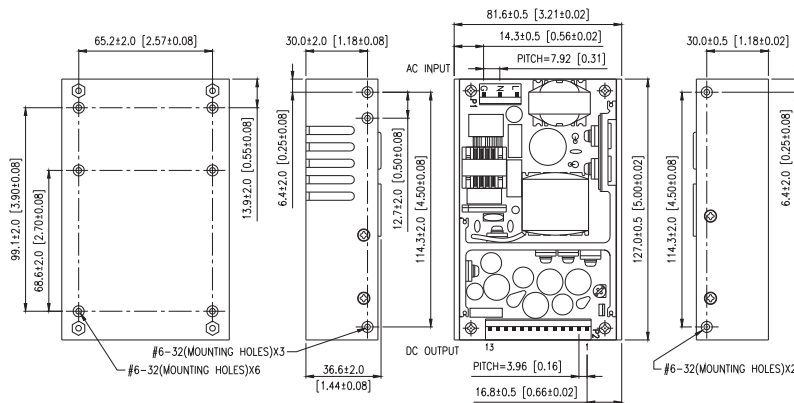
| Model Number  | Output #1 |       |       |        | Output #2 |       |       |        | Output #3 |       |       |        | Max. Output Power | Pno (max.) |
|---------------|-----------|-------|-------|--------|-----------|-------|-------|--------|-----------|-------|-------|--------|-------------------|------------|
|               | Vonom     | Iomin | Iomax | Regmax | Vonom     | Iomin | Iomax | Regmax | Vonom     | Iomin | Iomax | Regmax |                   |            |
| TPSUU80-200   | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     |           |       |       |        | 80W               | 6W         |
| TPSUU80-201   | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     |           |       |       |        | 80W               | 6W         |
| TPSUU80-202   | +5V       | 1.2A  | 12A   | 5%     | +15V      | 0.5A  | 5A    | 5%     |           |       |       |        | 80W               | 6W         |
| TPSUU80-203   | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     |           |       |       |        | 80W               | 6W         |
| TPSUU80-204   | +3.3V     | 1.2A  | 12A   | 7%     | +5V       | 0.5A  | 5A    | 5%     |           |       |       |        | 64.6W             | 6W         |
| TPSUU80-215   | +5V       | 1.2A  | 12A   | 5%     |           |       |       |        | -24V      | 0A    | 2A    | 5%     | 80W               | 6W         |
| TPSUU80-300   | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     | -12V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-300-1 | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     | +12V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-301   | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     | -5V       | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-301-1 | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     | +5V       | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-302   | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     | -12V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-302-1 | +5V       | 1.2A  | 12A   | 5%     | +12V      | 0.5A  | 5A    | 5%     | +12V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-303   | +5V       | 1.2A  | 12A   | 5%     | +15V      | 0.5A  | 5A    | 5%     | -15V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-303-1 | +5V       | 1.2A  | 12A   | 5%     | +15V      | 0.5A  | 5A    | 5%     | +15V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-304   | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     | -24V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-304-1 | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     | +24V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-305   | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     | -12V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-305-1 | +5V       | 1.2A  | 12A   | 5%     | +24V      | 0.3A  | 3A    | 5%     | +12V      | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-306   | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     | -5V       | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-306-1 | +3.3V     | 1.2A  | 12A   | 7%     | +12V      | 0.5A  | 5A    | 5%     | +5V       | 0A    | 0.8A  | 5%     | 80W               | 6W         |
| TPSUU80-307   | +5V       | 1.2A  | 12A   | 5%     | +10V      | 0.5A  | 5A    | 5%     | -10V      | 0A    | 1.0A  | 5%     | 80W               | 6W         |
| TPSUU80-307-1 | +5V       | 1.2A  | 12A   | 5%     | +10V      | 0.5A  | 5A    | 5%     | +10V      | 0A    | 1.0A  | 5%     | 80W               | 6W         |
| TPSUU80-308   | +3.3V     | 1.2A  | 12A   | 7%     | +5V       | 0.5A  | 5A    | 5%     | -12V      | 0A    | 1.0A  | 5%     | 76.6W             | 6W         |
| TPSUU80-308-1 | +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  |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| TPSUU80-215 | N/C | N/C | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | N/C |
| TPSUU80-2XX | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | N/C | COM | COM | N/C |
| TPSUU80-3XX | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | N/C |

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

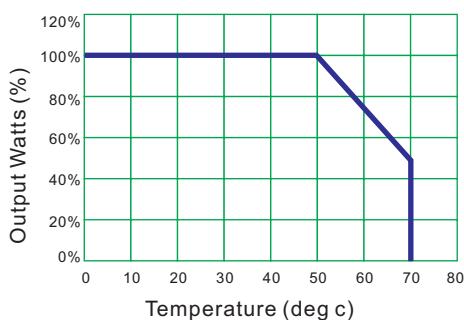
## Mechanical Specifications:



Note:

1. Dimensions are shown in inches or mm .
2. Weight: 480gs 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: 0 to 70°C
2. Derate linearly from 100% load at 50°C to 50% load at 70°C

