

TPSUU120 SERIES

120W U Bracket Type
I.T.E. Power Supplies

Features:

- Wide Operating Voltage 90 to 260 VAC, 47 to 63 Hz
- Internal EMI filter
- Single to Triple Output
- Output Voltage Protection (Crowbar Design)
- Active Power Factor Correction
- Power Fail Detect (Optional)
- 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 | 0.95~1.0 |
| 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 | 1.75A |
| Iih | Input Current (High Line) | Io=Full load, Vin=240VAC | 1.0A |
| Ir | Low Line Inrush Current | Io=Full load, 25°C, Cool start, Vin=115VAC | 37A (max.) |
| | High Line Inrush Current | Io=Full load, 25°C, Cool start, Vin=230VAC | 75A (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 | | 112~132% |
| OCP | 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.) |
| Iik | 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 | 2719VDC (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:



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.) |
|--------------|----------------|-----------------|------------------|-------------------|------------|
| TPSUU120-101 | 3 ~ 5 VDC | 22.00 ~ 20.00 A | 5% | 100W | 5W |
| TPSUU120-102 | 5 ~ 6 VDC | 22.00 ~ 18.33 A | 5% | 110W | 5W |
| TPSUU120-103 | 6 ~ 9 VDC | 19.16 ~ 12.77 A | 5% | 115W | 5W |
| TPSUU120-104 | 9 ~ 11 VDC | 13.33 ~ 10.90 A | 4% | 120W | 5W |
| TPSUU120-105 | 11 ~ 13 VDC | 10.90 ~ 9.23 A | 3% | 120W | 5W |
| TPSUU120-106 | 13 ~ 16 VDC | 9.23 ~ 7.50 A | 3% | 120W | 5W |
| TPSUU120-107 | 16 ~ 21 VDC | 7.50 ~ 5.71 A | 3% | 120W | 5W |
| TPSUU120-108 | 21 ~ 27 VDC | 5.71 ~ 4.44 A | 2% | 120W | 5W |
| TPSUU120-109 | 27 ~ 33 VDC | 4.44 ~ 3.63 A | 2% | 120W | 5W |
| TPSUU120-110 | 33 ~ 40 VDC | 3.63 ~ 3.00 A | 2% | 120W | 5W |
| TPSUU120-111 | 40 ~ 50 VDC | 3.00 ~ 2.40 A | 2% | 120W | 5W |

Output Voltage And Current Rating Chart (Multi Output) :

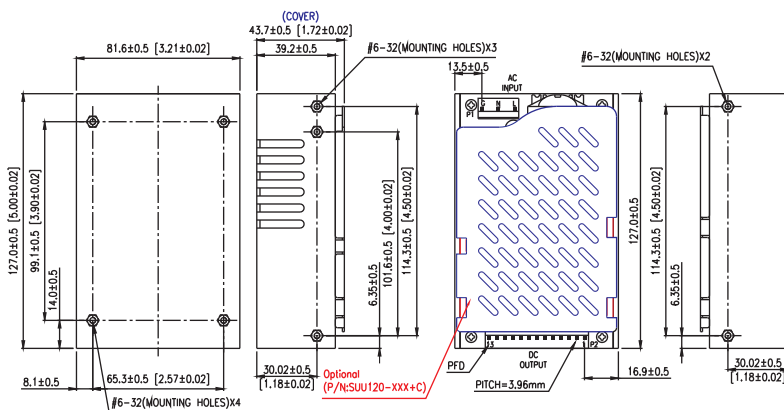
| Model Number | Output #1 | | | | Output #2 | | | | Output #3 | | | | Max. Output Power | Pno (max.) |
|----------------|-----------|-------|-------|--------|-----------|-------|-------|--------|-----------|-------|-------|--------|-------------------|------------|
| | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | | |
| TPSUU120-200 | +3.3V | 1.5A | 15A | 5% | +12V | 0.6A | 6A | 5% | | | | | 120W | 5.5W |
| TPSUU120-201 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | | | | | 120W | 5.5W |
| TPSUU120-202 | +5V | 1.5A | 15A | 5% | +15V | 0.6A | 6A | 5% | | | | | 120W | 5.5W |
| TPSUU120-203 | +5V | 1.5A | 15A | 5% | +24V | 0.4A | 3.5A | 5% | | | | | 120W | 5.5W |
| TPSUU120-204 | +3.3V | 1.5A | 15A | 5% | +5V | 0.8A | 6A | 5% | | | | | 79.5W | 5.5W |
| TPSUU120-215 | +5V | 1.5A | 15A | 5% | | | | | -24V | 0.2A | 2A | 5% | 120W | 5.5W |
| TPSUU120-219 | +28V | 0.4A | 3.92A | 5% | | | | | +5V | 0A | 2A | 5% | 120W | 5.5W |
| TPSUU120-300 | +3.3V | 1.5A | 15A | 5% | +12V | 0.6A | 6A | 5% | -12V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-300-1 | +3.3V | 1.5A | 15A | 5% | +12V | 0.6A | 6A | 5% | +12V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-301 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | -5V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-301-1 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | +5V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-302 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | -12V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-302-1 | +5V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | +12V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-303 | +5V | 1.5A | 15A | 5% | +15V | 1.0A | 6A | 5% | -15V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-303-1 | +5V | 1.5A | 15A | 5% | +15V | 1.0A | 6A | 5% | +15V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-304 | +5V | 1.5A | 15A | 5% | +24V | 0.45A | 3.5A | 5% | -24V | 0.25A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-304-1 | +5V | 1.5A | 15A | 5% | +24V | 0.45A | 3.5A | 5% | +24V | 0.25A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-305 | +5V | 1.5A | 15A | 5% | +24V | 0.4A | 3.5A | 5% | -12V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-305-1 | +5V | 1.5A | 15A | 5% | +24V | 0.4A | 3.5A | 5% | +12V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-306 | +3.3V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | -5V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-306-1 | +3.3V | 1.5A | 15A | 5% | +12V | 0.8A | 6A | 5% | +5V | 0A | 0.8A | 5% | 120W | 5.5W |
| TPSUU120-307 | +5V | 1.5A | 15A | 5% | +10V | 0.6A | 6A | 5% | -10V | 0A | 1.0A | 5% | 120W | 5.5W |
| TPSUU120-307-1 | +5V | 1.5A | 15A | 5% | +10V | 0.6A | 6A | 5% | +10V | 0A | 1.0A | 5% | 120W | 5.5W |
| TPSUU120-308 | +3.3V | 1.5A | 15A | 5% | +5V | 0.8A | 6A | 5% | -12V | 0A | 1.0A | 5% | 91.5W | 5.5W |
| TPSUU120-308-1 | +3.3V | 1.5A | 15A | 5% | +5V | 0.8A | 6A | 5% | +12V | 0A | 1.0A | 5% | 91.5W | 5.5W |

PIN CHART

| PIN MODEL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 (Optional) |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|
| TPSUU120-1XX | OUT | OUT | OUT | OUT | OUT | OUT | RTN | RTN | RTN | RTN | RTN | RTN | PFD |
| TPSUU120-219 | N/C | N/C | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | PFD |
| TPSUU120-215 | N/C | N/C | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | PFD |
| TPSUU120-2XX | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | N/C | COM | COM | PFD |
| TPSUU120-3XX | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | PFD |

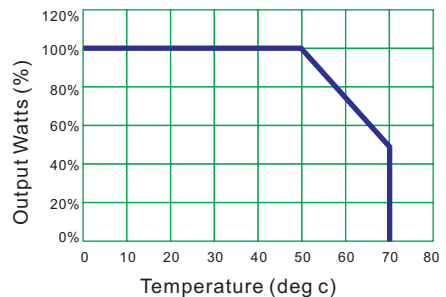
Note: Vo1:Output#1 Vo2:Output#2 Vo3:Output#3

Mechanical Specifications:



- Note:
- Dimensions are shown in inches or mm .
 - Weight: 476~582gs approx.
 - Input connector mates with Molex housing 09-52-4054 and Molex 2478 series crimp terminal.
 - Output connector mates with Molex housing 09-52-4134 and Molex 2478 series crimp terminal.

Derating Curve :



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

