

TPIUU63 SERIES

63W U Bracket Type
Industrial Power Supplies

Features:

- Wide Operating Voltage 81 to 280 VAC, 47 to 400 Hz or 90 to 420VDC
- Internal EMI filter
- Single to Quad Output
- Size: 3.2"x5"x1.38"
- Power Fail Detect (Optional)
- Operating temperature -20~70°C
- Class I
- 3 year warranty



Electrical Characteristics:

| | | | |
|-------|--|--|-------------------------|
| Vin | Universal Input Voltage | | 90~264VAC 106~250VDC |
| | Operating Voltage | | 81~280VAC 90~420VDC |
| 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 or 160VDC | 1.6A |
| Iih | Input Current (High Line) | Io=Full load, Vin=240VAC or 325VDC | 0.8A |
| Ir | Low Line Inrush Current | Io=Full load, 25°C, Cool start, Vin=115VAC or 160VDC | 35A (max.) |
| | High Line Inrush Current | Io=Full load, 25°C, Cool start, Vin=230VAC or 325VDC | 70A (max.) |
| Eff | Efficiency | Io=Full load, Vin=230VAC or 325VDC | 70~88% |
| REG-i | Line Regulation | Io=Full Load | 0.5~1% |
| REG-o | Load Regulation | Vin=230VAC or 325VDC | 5~6% |
| 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 or 140VDC | 5mS (max.) |
| Th | Hold-Up Time | Io=Full Load, Vin=110VAC or 160VDC | 16mS (min.) |
| Ts | Start Up Time | Io=Full Load, Vin=100VAC or 140VDC | 2S (max.) |
| Vp-p | Ripple & Noise(Peak to Peak) | Full Load, Vin=85VAC or 100VDC | 1% (max.) |
| Ilk | Safety Ground Leakage Current | Vin=240VAC/60Hz | 0.45mA (max.) |
| TC | Temperature Coefficient | All output | ±0.05%/°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 | 2414VDC (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:

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

Safety Approvals:

c  us 



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



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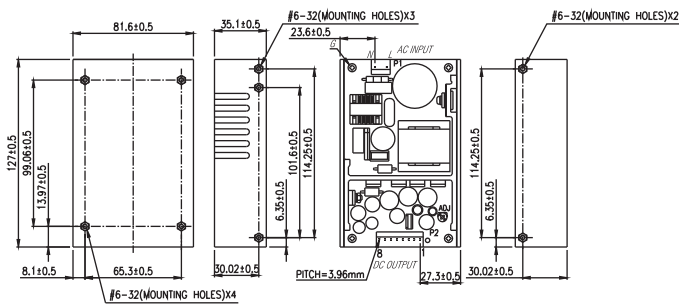
Output Voltage And Current Rating Chart (Single Output) :

| Model Number | Output Voltage | Output Current | Total Regulation | Max. Output Power | Pno (max.) |
|---------------|----------------|----------------|------------------|-------------------|------------|
| TPIUU63-101 | 3 ~ 5 VDC | 16.66 ~ 10.0 A | 5% | 50W | 2W |
| TPIUU63-102 | 5 ~ 6 VDC | 11.00 ~ 9.16 A | 5% | 55W | 2W |
| TPIUU63-103 | 6 ~ 8 VDC | 10.00 ~ 7.50 A | 5% | 60W | 2W |
| TPIUU63-104 | 8 ~ 11 VDC | 7.87 ~ 5.72 A | 3% | 63W | 2W |
| TPIUU63-105 | 11 ~ 13 VDC | 5.72 ~ 4.84 A | 3% | 63W | 2W |
| TPIUU63-105-1 | 11 ~ 13 VDC | 4.09 ~ 3.46 A | 3% | 45W | 2W |
| TPIUU63-106 | 13 ~ 16 VDC | 4.84 ~ 3.93 A | 3% | 63W | 2W |
| TPIUU63-107 | 16 ~ 21 VDC | 3.93 ~ 3.00 A | 3% | 63W | 2W |
| TPIUU63-108 | 21 ~ 27 VDC | 3.00 ~ 2.33 A | 2% | 63W | 2W |
| TPIUU63-109 | 27 ~ 33 VDC | 2.33 ~ 1.90 A | 2% | 63W | 2W |
| TPIUU63-110 | 33 ~ 40 VDC | 1.90 ~ 1.57 A | 2% | 63W | 2W |
| TPIUU63-111 | 40 ~ 48 VDC | 1.57 ~ 1.31 A | 2% | 63W | 2W |

Output Voltage And Current Rating Chart (Multi Output) :

| Model Number | Output #1 | | | | Output #2 | | | | Output #3 | | | | Output #4 | | | | Max. Output Power | Pno (max.) |
|---------------|-----------|-------|-------|--------|-----------|-------|-------|--------|-----------|-------|-------|--------|-----------|-------|-------|--------|-------------------|------------|
| | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | Vonom | Iomin | Iomax | Regmax | | |
| TPIUU63-200 | +3.3V | 1.4A | 7A | 6% | +12V | 0.6A | 3A | 5% | | | | | | | | | 59.1W | 2W |
| TPIUU63-201 | +5V | 0.7A | 7A | 5% | +12V | 0.3A | 3A | 5% | | | | | | | | | 63W | 2W |
| TPIUU63-202 | +5V | 0.7A | 7A | 5% | +15V | 0.3A | 3A | 5% | | | | | | | | | 63W | 2W |
| TPIUU63-203 | +5V | 0.7A | 7A | 5% | +24V | 0.4A | 2A | 5% | | | | | | | | | 63W | 2W |
| TPIUU63-204 | +3.3V | 1.4A | 7A | 6% | +5V | 0.5A | 5A | 5% | | | | | | | | | 48.1W | 2W |
| TPIUU63-215 | +5V | 1.4A | 7A | 5% | | | | | -24V | 0.2A | 2A | 5% | | | | | 63W | 2W |
| TPIUU63-300 | +3.3V | 1.2A | 6A | 6% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-300-1 | +3.3V | 1.2A | 6A | 6% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-301 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | -5V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-301-1 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | +5V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-302 | +5V | 0.6A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-302-1 | +5V | 0.6A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-303 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | -15V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-303-1 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | +15V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-305 | +5V | 1.2A | 6A | 5% | +24V | 0.4A | 2A | 5% | -12V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-305-1 | +5V | 1.2A | 6A | 5% | +24V | 0.4A | 2A | 5% | +12V | 0A | 0.8A | 5% | | | | | 63W | 2W |
| TPIUU63-306 | +3.3V | 1.2A | 6A | 6% | +12V | 0.6A | 3A | 5% | -5V | 0A | 0.8A | 5% | | | | | 59.8W | 2W |
| TPIUU63-306-1 | +3.3V | 1.2A | 6A | 6% | +12V | 0.6A | 3A | 5% | +5V | 0A | 0.8A | 5% | | | | | 59.8W | 2W |
| TPIUU63-308 | +3.3V | 0.5A | 5A | 6% | +5V | 0.5A | 5A | 5% | -12V | 0A | 1A | 5% | | | | | 53.5W | 2W |
| TPIUU63-308-1 | +3.3V | 0.5A | 5A | 6% | +5V | 0.5A | 5A | 5% | +12V | 0A | 1A | 5% | | | | | 53.5W | 2W |
| TPIUU63-400 | +3.3V | 1.2A | 6A | 6% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-400-1 | +3.3V | 1.2A | 6A | 6% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-400-2 | +3.3V | 1.2A | 6A | 6% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-400-3 | +3.3V | 1.2A | 6A | 6% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-401 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | -12V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-401-1 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | -12V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-401-2 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | +12V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-401-3 | +5V | 0.6A | 6A | 5% | +12V | 0.3A | 3A | 5% | +12V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU83-402 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | -12V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-402-1 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | +12V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-402-2 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | -12V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-402-3 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | +12V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-403 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | -24V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-403-1 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | -12V | 0A | 0.8A | 5% | +24V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-403-2 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | -24V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-403-3 | +5V | 1.2A | 6A | 5% | +12V | 0.6A | 3A | 5% | +12V | 0A | 0.8A | 5% | +24V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-404 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | -15V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-404-1 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | -15V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-404-2 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | +15V | 0A | 0.8A | 5% | -5V | 0A | 0.8A | 5% | 63W | 2W |
| TPIUU63-404-3 | +5V | 0.6A | 6A | 5% | +15V | 0.3A | 3A | 5% | +15V | 0A | 0.8A | 5% | +5V | 0A | 0.8A | 5% | 63W | 2W |

Mechanical Specifications :



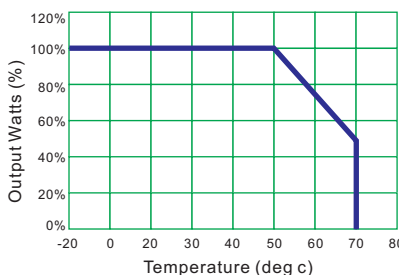
- Note:
- Dimensions are shown in inches or mm.
 - Weight: 425gs approx.
 - Input connector mates with Molex housing 09-52-4034 and Molex 2478 series crimp terminal.
 - Output connector mates with Molex housing 09-52-4084 and Molex 2478 series crimp terminal.

PIN CHART

| MODEL \ PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 (Optional) |
|-------------|-----|-----|-----|-----|-----|-----|-----|--------------|
| TPIUU63-1XX | OUT | OUT | OUT | RTN | RTN | RTN | RTN | PFD |
| TPIUU63-2XX | Vo2 | Vo1 | Vo1 | COM | COM | N/C | N/C | PFD |
| TPIUU63-215 | N/C | Vo1 | Vo1 | COM | COM | Vo3 | N/C | PFD |
| TPIUU63-3XX | Vo2 | Vo1 | Vo1 | COM | COM | Vo3 | N/C | PFD |
| TPIUU63-4XX | Vo2 | Vo1 | Vo1 | COM | COM | Vo3 | Vo4 | PFD |

Note: Vo1:Output#1 Vo2:Output#2 Vo3:Output#3 Vo4:Output#4

Derating Curve :



- Operating Temperature: -20 to 70°C
- Derate linearly from 100% load at 50°C to 50% load at 70°C

