

TPSPU80 SERIES

80W Desk Top Switching Power Supplies For I.T.E.

Description:

The 80 series of AC/DC switching mode power supplies provide 80 Watts of continuous output power. All supplies are UL 94V-1 min compliant, include IEC-320-C14 input for worldwide applications. All models meet FCC Part-15 class B and CISPR-22 class B emission Limits and are designed to comply with UL/c-UL(UL 60950-1), TUV/GS(EN 60950-1) and new CE requirements. All units are 100% burned in and tested.



Features:

- Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- IEC-320-C14 Input Inlet
- Single Output
- Output Voltage Available From 11VDC Thru 48VDC
- Optional Output Connector (See appendix)
- Input Surge Current, Over Voltage And Over Load protection
- Power Factor Correction
- Output Voltage Protection(Crowbar Design)
- Splash proof
- Class I
- 2 year warranty

Safety Approvals :



Electrical Characteristics:

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|-------|-------------------------------|--|------------------|------|------|------|
| Vin | Input Voltage | Operating Voltage | 90 | | 264 | VAC |
| fin | Input Frequency | | 47 | | 63 | Hz |
| PF | Power Factor Correction | Io=Full load, Vin=90~260VAC | 0.95 | 0.97 | 1.0 | |
| Po | Output Power Range | Vin=90 to 264 VAC | 0 | | 80 | W |
| Vo | Output Voltage Range | | See rating Chart | | | V |
| Io | Output Current Range | | See rating Chart | | | A |
| Iil | Input Current (Low Line) | Io=Full load, Vin=115VAC | | | 1.07 | A |
| Iih | Input Current (High Line) | Io=Full load, Vin=230VAC | | | 0.5 | A |
| Irl | Low Line Inrush Current | Io=Full load, 25°C, Cool start, Vin=115VAC | | 12 | 15 | A |
| Irh | High Line Inrush Current | Io=Full load, 25°C, Cool start, Vin=230VAC | | 26 | 30 | A |
| Eff | Efficiency | Io=Full load, Vin=230VAC | 80 | 83 | 88 | % |
| REG-i | Line Regulation | Io=Full load | | 0.5 | 1 | % |
| REG-o | Load Regulation | Vin=230VAC | | 3 | 7 | % |
| 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 | | | 4 | mS |
| Thold | Hold-Up Time | Io=Full load, Vin=110VAC | 16 | | | mS |
| Ts | Start Up Time | Io=Full load, Vin=100VAC | 0.3 | 1 | 2 | S |
| Vp-p | Ripple & Noise (Peak to Peak) | Full load, Vin=90VAC | | 0.5 | 1 | % |
| Ilk | Safety Ground Leakage Current | Io=Full load, Vin=240VAC | | 0.5 | 0.75 | mA |
| TC | Temperature Coefficient | All output | -0.04 | | 0.04 | %/°C |

Environmental :

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|-------|---|-----------------|------|------|------|------|
| Toper | Operating Temperature | | 0 | | 70 | °C |
| Tstg | Storage Temperature | | -40 | | 85 | °C |
| Hr | Relative Humidity | | 5 | | 95 | % |
| MTBF | Operating Temperature at 25°C, Calculated per MIL-HDBK-217F | | 0.1 | | | MHrs |
| Pd | Derate linearly from 100% load at 40°C to 50% load at 70°C | | | | | |

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Safety Specifications:

| Sym. | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|-----------------|--|----------------------|------|------|------|-------|
| V _{ps} | Dielectric Withstanding Voltage for Primary to secondary | Primary to secondary | 4242 | | | VDC |
| V _{pg} | Dielectric Withstanding Voltage for Primary to Ground | Primary to ground | 2121 | | | VDC |
| R _{is} | Isolation Resistance | Test Voltage=500VDC | 50 | | | M Ω |
| CISPR | EMI requirements for CISPR-22 | Vin=220VAC | B | | | CLASS |
| FCC | EMI requirements for FCC PART-15 | Vin=110VAC | B | | | CLASS |

Output Voltage And Current Rating Chart (Single Output) :

| Model Number | Out Voltage | Out Current | Total Regulation | Maximum Out Power |
|---------------|-------------|---------------|------------------|-------------------|
| * TPSPU80-105 | 11 ~ 13 VDC | 7.27 ~ 6.15 A | 5% | 80W |
| * TPSPU80-106 | 13 ~ 16 VDC | 6.15 ~ 5.00 A | 5% | 80W |
| * TPSPU80-107 | 16 ~ 21 VDC | 5.00 ~ 3.80 A | 5% | 80W |
| * TPSPU80-108 | 21 ~ 27 VDC | 3.80 ~ 2.96 A | 5% | 80W |
| * TPSPU80-109 | 27 ~ 33 VDC | 2.96 ~ 2.42 A | 5% | 80W |
| TPSPU80-110 | 33 ~ 40 VDC | 2.42 ~ 2.00 A | 5% | 80W |
| TPSPU80-111 | 40 ~ 48 VDC | 2.00 ~ 1.66 A | 5% | 80W |

Mark "*" means "PSE approval"

The output voltage under 30V had been approved by TUV/PSE

Mechanical Specifications:

Note:

1. Dimensions are shown in inches or mm.
2. Weight: 600-700gs approx.
3. Optional output connector:
See page Appendix.

