

FEATURES

- Splash Proof
- Single Output
- 3 Year Warranty
- A Type: Class I Insulation
- Optional Output Connectors
- CEC and Energy Star Compliance
- 2 Types of Inlet Connectors Available
- Approved as Limited Power Source (LPS)
- Wide Input Voltage 90 to 264VAC, 47~63Hz
- B Type: Class II Insulation (Double Insulation)
- Output Voltages Available from 3VDC to 48VDC



Type A



Type B



| SPECIFICATIONS: DTSPU20 Series | | | | | |
|---|--|--|------|-------|-------|
| All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances. | | | | | |
| SPECIFICATION | TEST CONDITIONS | Min | Nom | Max | Unit |
| INPUT (V_{in}) | | | | | |
| Operating Voltage Range | | 90 | | 264 | VAC |
| Input Frequency | | 47 | | 63 | Hz |
| Input Current (Low Line) | Io = Full Load, Vin = 115VAC | | | 0.4 | A |
| Input Current (High Line) | Io = Full Load, Vin = 230VAC | | | 0.25 | A |
| Inrush Current (Low Line) | Io = Full Load, 25°C, Cool Start, Vin = 115VAC | | 12 | 15 | A |
| Inrush Current (High Line) | Io = Full Load, 25°C, Cool Start, Vin = 230VAC | | 26 | 30 | A |
| Safety Ground Leakage Current (A Type) | Io = Full Load, Vin = 240VAC | | 0.5 | 0.75 | mA |
| Safety Ground Leakage Current (B Type) | Io = Full Load, Vin = 240VAC | | 0.15 | 0.25 | mA |
| Start-Up Time | Io = Full Load, Vin = 100VAC | | 0.25 | 0.5 | s |
| OUTPUT (V_o) | | | | | |
| Output Voltage Range | | See Rating Chart | | | VDC |
| Load Regulation | Vin = 230VAC | 1 | 3 | 5 | % |
| Line Regulation | Io = Full Load | | 0.5 | 1 | % |
| Output Power Range | Vin = 90 to 264VAC | | | 20 | W |
| Output Current Range | | See Rating Chart | | | A |
| Ripple & Noise (peak to peak) | Full Load, Vin = 90VAC | | 0.5 | 1 | % |
| Transient Response | Io = Full Load to Half Load, Vin = 100VAC | | | 4 | ms |
| Hold-Up Time | Io = Full Load, Vin = 110VAC | 12 | 14 | 16 | ms |
| PROTECTION | | | | | |
| Over Voltage Protection | | | Nil | | % |
| Over Current Protection | | 110 | | 150 | % |
| GENERAL | | | | | |
| Efficiency | Io = Full Load, Vin = 230VAC | 75 | 85 | 95 | % |
| Dielectric Withstanding Voltage For Primary to Secondary | Primary to Secondary | 4242 | | | VDC |
| Dielectric Withstanding Voltage For Primary to Ground (A Type Only) | Primary to Ground | 2121 | | | VDC |
| Isolation Resistance | Test Voltage = 500VDC | 50 | | | MΩ |
| Power Consumption (No Load) | No Load, Vin = 240VAC | 0 | 0.4 | 0.5 | W |
| ENVIRONMENTAL | | | | | |
| Operating Temperature | Derate linearly from 100% Load at 40°C to 50% load at 70°C | 0 | | 70 | °C |
| Storage Temperature | | -40 | | 85 | °C |
| Relative Humidity | | 5 | | 95 | % |
| Temperature Coefficient | All Outputs | -0.04 | | +0.04 | %/°C |
| MTBF | | 300,000 | | | hours |
| PHYSICAL | | | | | |
| Weight | | Approximately 170 grams | | | |
| Dimensions | | 3.90 x 1.65 x 1.22 inches | | | |
| Input Inlet | | A Type: IEC-320-C6, B Type: IEC-320-C8 | | | |
| Warranty | | 3 | | | years |
| SAFETY | | | | | |
| CISPR (EMI Requirements for CISPR-22) | Vin = 220VAC | B | | | Class |
| FCC (EMI Requirements for FCC Part-15) | Vin = 110VAC | B | | | Class |

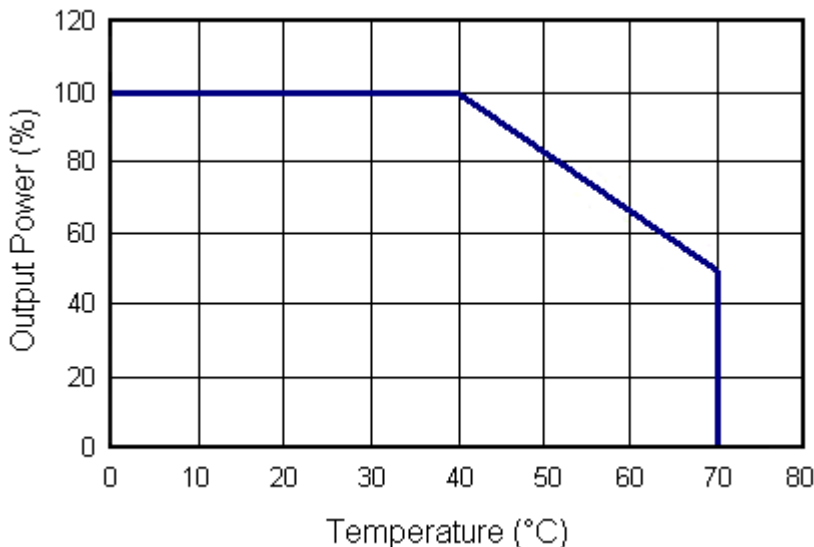
OUTPUT VOLTAGE/ CURRENT RATING CHART

| Model Number | Preset Voltage | Output Voltage Range | Output Current | Total Regulation | Max Output Power | AC Inlet Connector |
|--------------|----------------|----------------------|----------------|------------------|------------------|--------------------|
| DTSPU20A-102 | 6 VDC | 5 ~ 6 VDC | 3.00 ~ 2.50A | 5% | 15W | IEC-320-C6 |
| DTSPU20A-105 | 13 VDC | 11 ~ 13 VDC | 1.81 ~ 1.53A | 4% | 20W | |
| DTSPU20A-106 | 16 VDC | 13 ~ 16 VDC | 1.53 ~ 1.25A | 4% | 20W | |
| DTSPU20A-108 | 27 VDC | 21 ~ 27 VDC | 0.95 ~ 0.74A | 3% | 20W | |
| DTSPU20A-109 | 33 VDC | 27 ~ 33 VDC | 0.74 ~ 0.60A | 3% | 20W | |
| DTSPU20A-111 | 48 VDC | 40 ~ 48 VDC | 0.50 ~ 0.41A | 3% | 20W | |
| DTSPU20B-102 | 6 VDC | 5 ~ 6 VDC | 3.00 ~ 2.50A | 5% | 15W | IEC-320-C8 |
| DTSPU20B-105 | 13 VDC | 11 ~ 13 VDC | 1.81 ~ 1.53A | 4% | 20W | |
| DTSPU20B-106 | 16 VDC | 13 ~ 16 VDC | 1.53 ~ 1.25A | 4% | 20W | |
| DTSPU20B-108 | 27 VDC | 21 ~ 27 VDC | 0.95 ~ 0.74A | 3% | 20W | |
| DTSPU20B-109 | 33 VDC | 27 ~ 33 VDC | 0.74 ~ 0.60A | 3% | 20W | |
| DTSPU20B-111 | 48 VDC | 40 ~ 48 VDC | 0.50 ~ 0.41A | 3% | 20W | |

NOTES

1. The DTSPU20 Series is designated as DTSPU20x-y where x represents the type of AC input inlet connector which can either be A (IEC-320-C6) or B (IEC-320-C8); y can be 102, 103, 104, 105, 106, 107, 108, 109, 110 or 111 for output voltage.
2. The output voltage is specified as a range (Ex: 40 ~ 50VDC); the preset voltage will be set as standard models if nothing different is requested. Please contact factory for ordering details.
3. To meet the total regulation specifications all models must use an AWG#18/4FT output cable. The regulation will change if the output cable is modified.
4. The PSE Mark is not for each model. Please contact sales if you need to put the PSE Mark on your products.
5. Optional output connectors are available (see "DC Output Plug Selector List" link located at the bottom of the "Desktop" category page).

DERATING CURVE



MECHANICAL DRAWINGS

Unit: inches [mm]

