



SFU251P Series

220 - 250 Watt AC - DC Open Frame Power Supply
UL, EN, IEC 60950-1 2nd Edition, RoHS 2 Compliant

Date: 10/17/18

Rev: 080118

Page: 1 of 3

The SFU251P Series open frame switch mode power supply offers 220 Watts to 250 Watts output power (convection cooled), with a output voltage options of 12 Vdc and 24 Vdc. PCB size is 4.18" x 6.4" with U-Bracket. Safety approvals include UL/CUL, IEC, and EN 60950-1, 2nd Edition.

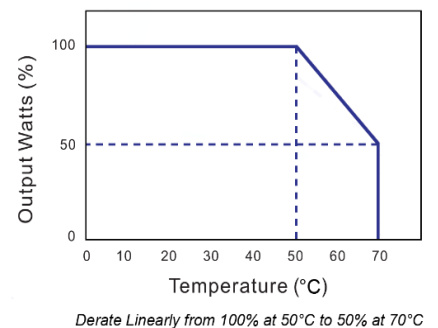


| | |
|-------------------------------|--|
| Input Voltage | 90 to 264 Vac |
| Input Frequency | 47 to 63 Hz |
| Input Current (Low Line) | 3.3 A Max. at 100 Vac |
| Input Current (High Line) | 1.3 A Max. at 240 Vac |
| Power Factor Correction | 0.95 – 1.0 |
| Safety Ground Leakage Current | 0.75 mA Max. at 240 Vac, Full Load |
| Output Voltage & Current | See Table on Page 2 |
| Over-Voltage Protection | 112 - 132%, Crowbar Protected |
| Over-Current Protection | 110 - 150% |
| Temperature Coefficient | ± 0.04% / °C Max. |
| Transient Response | 50% Load Change at 100 Vac Input: 4 ms Max. |
| Efficiency | 86 - 91% |
| No Load Power Consumption | ≤ 2 Watts |
| Line Regulation | ± 1% Max. at Full Load |
| Load Regulation | ± 5% Max. |
| Start-Up Time | 3 s |
| Hold-Up Time | 20 ms Min. |
| Withstanding Voltage | Primary to Secondary: 4,242 Vdc Primary to Ground: 2,121 Vdc |
| Inrush Current | 45 A Max. @ 100 Vac, 25 °C Cold Start 108 A Max. @ 240 Vac, 25 °C Cold Start |
| Mean Time Between Failure | 100,000 Hrs. Min. (MIL-HDBK-217F, Full Load at 25°C) |
| Operating Temperature | See Derating Curve |
| Storage Temperature | -40 to 85°C |
| Industry Compliance | Directive 2011/65/EU (RoHS 2) |
| Weight | 790 g Typ. |
| EMI Requirements | Meets Conduction Limits of: FCC Part 15 Class B, CISPR-32 Class B, EN 55032 Class B |
| Safety Compliance | UR/cUR (UL 60950-1:2 nd Ed.), TUV (EN 60950-1:2006/A2:2013), CE, CB (IEC 60950-1:2005/A2:2013) |

Features:

- 220 - 250 Watts Convection Cooled
- Universal Input 100 - 240 Vac
- Over-Voltage, Over-Current, and Short Circuit Protection
- Internal EMI Filter
- Zero Voltage Switching (ZVS)
- Class I
- Active Power Factor Correction
- 100% Burn-In
- RoHS 2 Compliant

Derating Curve





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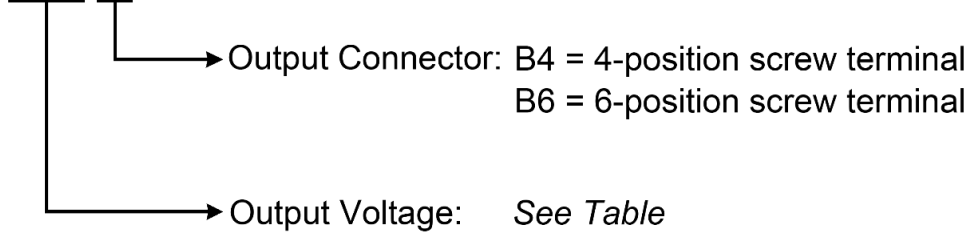
Rev: 080118

Page: 2 of 3

Output Voltage and Current Table

| Model Number | Output Voltage | Output Current | Ripple & Noise (mV P-P) ¹ | Output Power |
|--------------|----------------|----------------|--------------------------------------|--------------|
| SFU251P112_R | 12 Vdc | 18.33 A | 120 | 220 W |
| SFU251P124_R | 24 Vdc | 10.42 A | 240 | 250 W |

SFU251P1 R



Notes:

1. Measured w/ 0.1 μ F ceramic capacitor & 47 μ F electrolytic capacitor in parallel and a 20 MHz Bandwidth-limited scope.



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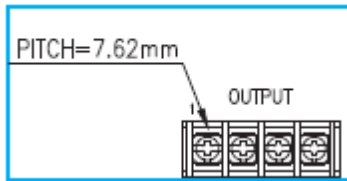
Page: 3 of 3

Mechanical Specification (mm, [in])

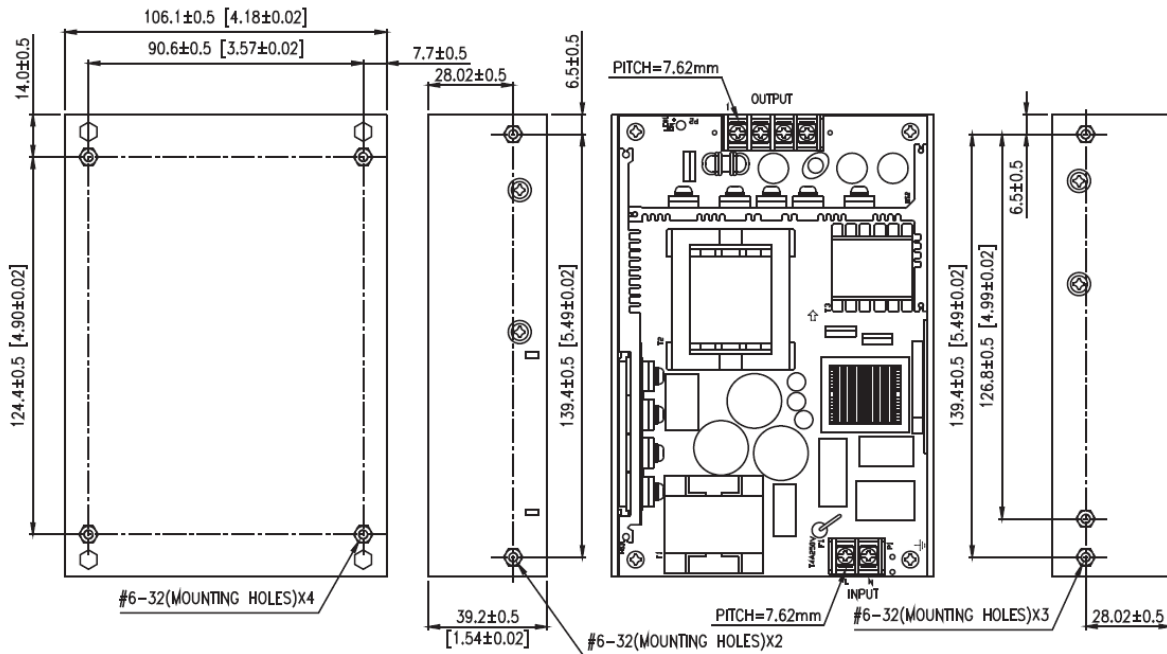
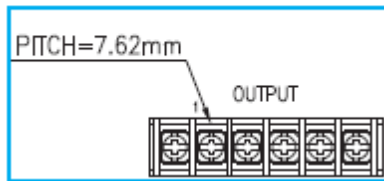
| Pin Connection | 4-Position Screw Terminal | |
|----------------|------------------------------|-------|
| SFU251P1__B4R | 1 - 2 | 3 - 4 |
| Pin | | |
| Output | Return | +V |

| Pin Connection | 6-Position Screw Terminal | |
|----------------|------------------------------|-------|
| SFU251P1__B6R | 1 - 3 | 4 - 6 |
| Pin | | |
| Output | Return | +V |

4 PIN



6 PIN



- Input Connector Mating:
 - Mates with DINKLE # DT-2GN-B01W-02P and DINKLE # ESK750V-02P

- Output Connector Mating:
 - Mates with DINKLE # DT-2GN-B01W-(04P or 06P) and DINKLE # ESK750V-(04P or 06P).