



FSA150 Series

150 Watt ITE Open Frame Power Supply

- High Efficiency: Level V
- Up to 180W with Forced Air
- High Power Density 9.8W/in³
- Lifetime Expectation >5 years
- Hold-up Time >25ms at full load
- EISA and CEC Compliant
- Grounded Output
- Safety Approval - EN60950-1

| Elpac Part Number | Output Voltage | Output Current ¹ | Forced Air Current ² | Total Regulation ³ | Typical Efficiency ⁴ |
|-------------------|----------------|-----------------------------|---------------------------------|-------------------------------|---------------------------------|
| FSA150012A | 12.0V | 12.5A | 15.0A | ±5% | 91% |
| FSA150015A | 15.0V | 10.0A | 12.0A | ±5% | 91% |
| FSA150018A | 18.0V | 8.3A | 10.0A | ±5% | 91% |
| FSA150024A | 24.0V | 6.3A | 7.5A | ±5% | 92% |
| FSA150048A | 48.0V | 3.2A | 3.75A | ±5% | 94% |

Notes

1 With convection cooling. Peak load (180W) lasting up to 500ms with a maximum 10% duty cycle.

2 Sustained output current with minimum 100 LFM.

3 Includes initial setting, line regulation, load regulation, and thermal drift.

4 Typical at 115VAC.

Input

| | |
|-----------------------------|--|
| Input Voltage | 85 - 264VAC 100 - 240VAC Nominal |
| Input Frequency | 47 - 63Hz |
| Input Current | <2A rms |
| Inrush Current | <37A at 230VAC cold start |
| Power Factor | >0.97 |
| Zero Load Power Consumption | <0.5W |
| Touch Leakage Current | <150 μ A @ 132VAC @ 60Hz <300 μ A @ 264VAC @ 60Hz |

Output

| | |
|-----------------------------|--|
| Output Voltage | See Table |
| Total Regulation | +/-5% |
| Minimum Load | No minimum load required |
| Start-Up Delay | <1.5s |
| Hold-Up Time | >25ms at any input voltage |
| Ripple & Noise | <1% pk-pk ** * |
| Over Voltage Protection | 110-135% |
| Over Temperature Protection | Active - Recoverable; plus Passive - Non Recoverable |
| Over Current Protection | 120 - 180% |
| Short Circuit Protection | shutdown, auto-restart (hiccup mode) |

Notes

* Ripple and noise measured with 20MHz bandwidth; 10 μ F tantalum capacitor in parallel with a 0.1 μ F ceramic capacitor.


General

| | |
|---------------|---|
| Efficiency | Avg Efficiency 91.7% @ 115VAC; 93.4% @ 230VAC |
| MTBF | min. 200,000 hours demonstrated |
| Size | 5.00" x 3.00" x 1.22" 127mm x 76.2mm x 30.9mm |
| Weight | 0.75 lbs (.34 kg) |
| Power Density | 9.8W/in ³ |

Environmental

| | |
|-----------------------|---|
| Operating Temperature | 0 – 70°C (Full load to 50°C, derate linearly to 50% load at 70°C) |
| Storage Temperature | -40°C to +85°C |
| Relative Humidity | 5-95%, non-condensing |
| Cooling | Natural Convection (150W) or Forced Air (180W) |
| Vibration | All units production tested to 19.6m/s ² |

EMC & Safety

| | |
|---|--|
| Emissions | FCC class B, CISPR22 class B EN61000-3-2, -3 |
| Immunity | EN61000-4-2, -3, -4, -5, -6, -8, -11 |
| Certified by TUV to the following: | cTUVus |
|  | UL 60950-1 |
| | CAN/CSA-22.2 No.60950-1 |
| | CB per IEC60950-1 |
| | CE marked to LVD |

Input Configuration

| | |
|---------------------------------|----------------------------------|
| Connection on Power Supply Body | AMP p/n 640445-3 (or equivalent) |
| Mating Connector | AMP p/n 640250-3 (or equivalent) |

Output Configuration

| | |
|----------------------|----------------------------------|
| Connector (PSU Side) | AMP p/n 640445-8 (or equivalent) |
| Mating Connector | AMP p/n 640250-8 (or equivalent) |

Input Pin Assignments (P1)

| | |
|-------|-----------------|
| Pin 1 | Ac Neutral |
| Pin 2 | <not assembled> |
| Pin 3 | AC Line |

Output Pin Assignments

| | |
|-------|--------|
| Pin 1 | +V1 |
| Pin 2 | +V1 |
| Pin 3 | +V1 |
| Pin 4 | +V1 |
| Pin 5 | Return |
| Pin 6 | Return |
| Pin 7 | Return |
| Pin 8 | Return |

