



ELPAC FWE050 SERIES CLASS I

50 Watt
ITE Desktop Power Supply

- Safety Approval - IEC62368-1 Class I
- High Efficiency: Level VI
- High Power Density 3.41W/in³
- Hold-up Time >10ms at full load
- Fully Regulated DC output
- DOE&CEC&ERP Directive Compliant
- LED Indicator
- Grounded Output (12V Floating Output)
5-Year Limited Warranty



| INPUT | |
|---------------------------------|--|
| Input Voltage | 85 – 264VAC (100 – 240VAC Nominal) |
| Input Frequency | 47 – 63Hz (50-60Hz Rated) |
| Input Current | <0.8A rms |
| Inrush Current | <60A at 230VAC cold start |
| Power Factor | N/A |
| Zero Load Power | <0.15W |
| Earth Leakage Current (Typical) | N/A |
| Touch Leakage Current | <0.25mA@264Vac 60Hz (typical) --- Accessible parts and circuits not connected to PE |

| OUTPUT | |
|-----------------------------|---|
| Output Voltage | See Table |
| Total Regulation | ±5% |
| Minimum Load | No minimum load required |
| Start-Up Delay | <2.0s |
| Hold-Up Time | >10ms at any input voltage of full load |
| Ripple & Noise | <1% pk-pk ** |
| Over Voltage Protection | 110 – 150% |
| Over Temperature Protection | Active – Recoverable Passive - Non recoverable |
| Over Current Protection | 108 – 180% |
| Short Circuit Protection | Shutdown, auto-restart (hiccup mode) |

Notes

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

| Model Number | Output Voltage | Output Current | Peak Current ¹ | Total Regulation ² | Typical Efficiency ³ |
|----------------|----------------|----------------|---------------------------|-------------------------------|---------------------------------|
| FWE050012A-10A | 12.0V | 4.16A | 5.0A | ±5% | 88% |
| FWE050015A-10A | 15.0V | 3.33A | 4.0A | ±5% | 90% |
| FWE050018A-10A | 18.0V | 2.78A | 3.33A | ±5% | 90% |
| FWE050019A-10A | 19.0V | 2.63A | 3.15A | ±5% | 90% |
| FWE050024A-10A | 24.0V | 2.08A | 2.5A | ±5% | 90% |

Notes

- 1) Maximum peak load (60W) lasting 500ms with a maximum 10% duty cycle.
- 2) Includes initial setting, line regulation, load regulation, and thermal drift.
- 3) Typical at 115VAC (including output cable).
- 4) AC cord not included-AC cord part number 67400-185-EB can be ordered separately.

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General

| | |
|---------------|--|
| Efficiency | Avg. Efficiency 89.0% @ 115VAC; Avg. Efficiency 89.0% @ 230VAC; |
| MTBF | min. 200,000 hours, SR-332 issue 3 |
| Size | 4.50" (114.2mm) x 2.26" (57.5mm) x 1.44" (36.5mm) |
| Weight | 0.44 LBS (0.20 Kg) |
| Power Density | 3.41W/in ³ |

Environmental

| | |
|-----------------------|---|
| Operating Temperature | 0–60°C (Full load to 40°C, derate linearly to 50% load at 60°C) |
| Storage Temperature | -40°C to +85°C |
| Relative Humidity | 5-93%, non-condensing |
| Cooling | Natural Convection |
| Vibration | Unites meet MIL-STD-810G Figure 514.6C-1 category 4 |

EMC & Safety

| | |
|------------------------------------|---|
| Emissions | FCC class B, EN55035:2017 EN55032:2015+A11:2020 |
| Immunity | EN61000-4-2, -3, -4, -5, -6, -11 |
| Certified by TUV to the following: | cTUVus |
| | UL62368-1:2014 |
| | CAN/CSA-22.2 No.62368-1-14 |
| | CB per IEC 62368-1:2014 |
| | DOE EPS Energy efficiency (Level VI), EU CoC Energy efficiency (Level VI), EU ErP directive CE marked to LVD and CE EMC /CCC |

Input & Output Configuration

| | |
|---------------------------------|---|
| Standard Input Cable | Not Provided Separately (P/N 67400-185-EB) |
| Connection on Power Supply Body | IEC 320 C14 Receptacle |
| Standard Output Cable | 4ft |
| Output Cable Cord Size | 2x16awg (12V) 2x18awg (15V, 18V, 19V, 24V) |
| Output Cable Connector | Switchcraft 760 or equivalent |
| Output Cable Mating Connector | Switchcraft 712A or equivalent |

Output Pin Assignments

| | | |
|---------|--------|--|
| Center | +V1 | |
| Outside | Return | |
| | | |
| | | |
| | | |
| | | |

Mechanical Drawing

