



# ELPAC FWE050 SERIES CLASS I

50 Watt  
ITE Desktop Power Supply

- Safety Approval - IEC60950-1 Class I
- High Efficiency: Level VI
- High Power Density 3.41W/in<sup>3</sup>
- Hold-up Time >10ms at full load
- Fully Regulated DC output
- DOE&CEC&ERP Directive Compliant
- LED Indicator
- 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 <sup>1</sup>	Total Regulation <sup>2</sup>	Typical Efficiency <sup>3</sup>
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 <sup>3</sup>

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, EN55032 class B EN61000-3-2,-3
Immunity	EN61000-4-2, -3, -4, -5, -6, -11
Certified by TUV to the following:	cTUVus
	UL60950-1:2007 R10.14
	CAN/CSA-22.2 No.60950-1-07+A1+A2
	CB per IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
	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 C6 Receptacle
Standard Output Cable	4ft
Output Cable Cord Size	2x16awg (12V, 15V) 2x18awg (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

