

ELPAC FWA120 SERIES CLASS I

120 Watt
ITE Desktop Power Supply



- Safety Approval - EN60950-1 Class I
- High Efficiency: Level V
- High Power Density 5.4W/in³
- Lifetime Expectation >5 years
- Hold-up Time >25ms at full load
- Floating Output
- 5-Year Limited Warranty



INPUT	
Input Voltage	85 – 264VAC (100 – 240VAC Nominal)
Input Frequency	47 – 63Hz (50-60Hz Rated)
Input Current	<2.0A rms
Inrush Current	<37A at 230VAC cold start
Power Factor	>0.97
Zero Load Power	<0.5W
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	<1.5s
Hold-Up Time	>25ms at any input voltage of full load
Ripple & Noise	<1% pk-pk **
Over Voltage Protection	110 – 135%
Over Temperature Protection	Active - Recoverable; Passive - Non recoverable
Over Current Protection	120 – 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
FWA120012A-12A	12.0V	10.0A	12.0A	±5%	89%
FWA120015A-12A	15.0V	8.0A	9.6A	±5%	90%
FWA120018A-12A	18.0V	6.66A	8.0A	±5%	90%
FWA120024A-12A	24.0V	5.0A	6.0A	±5%	91%
FWA120028A-11A	28.0V	4.28A	5.14A	±5%	91%
FWA120048A-11A	48.0V	2.5A	3.0A	±5%	92%

Notes

1) Maximum peak load (144W) 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 90.5% @ 115VAC; Avg. Efficiency 92.5% @ 230VAC;
MTBF	min. 200,000 hours, SR-332 issue 3
Size	7.56" (192mm) x 2.45" (62.2mm) x 1.52" (38.7mm)
Weight	1.55 LBS (0.7 Kg)
Power Density	5.4W/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, EN55022 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 R12.11
	CAN/CSA-22.2 No.60950-1+A1:2011
	CB per IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
	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 for 12V, 15V 6ft for 18V, 24V, 28V, 48V
Output Cable Cord Size	4x16awg (12V, 15V, 18V) 4x18awg (24V*, 28V*, 48V)
Output Cable Connector	Switchcraft DIN-8, P/N 15BL8M (12V, 15V, 18V, 24V) Switchcraft DIN-5, P/N 05GM5M (28V, 48V)
Output Cable Mating Connector	Switchcraft 62GB8FX (8 pin) or equivalent (12V, 15V, 18V, 24V) Switchcraft 57GB5FX (5 pin) or equivalent (28V, 48V)

Output Pin Assignments

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

Output Pin Assignments

Pin 1	+V1	
Pin 2	+V1	
Pin 3	Return	
Pin 4	+V1	
Pin 5	Return	

*with EMI bead

Mechanical Drawing

