



# ELPAC FWA220 SERIES CLASS I

220 Watt  
ITE Desktop Power Supply

- Safety Approval - EN609501-1 Class I
- High Efficiency: Level VI
- Hold-up Time >25ms at full load
- LED Status Indicator
- EISA, CEC, EuP Directive Compliant
- IPX1 rated



Model Number	Output Voltage	Output Current	Peak Current <sup>1</sup>	Total Regulation <sup>2</sup>	Typical Efficiency <sup>3</sup>
FWA220012A-13A	12.0V	18.3A	19.0A	±5%	89%
FWA220015A-13A	15.0V	14.6A	15.2A	±5%	89%
FWA220018A-13A	18.0V	12.2A	12.7A	±5%	90%
FWA220024A-13A	24.0V	9.2A	9.5A	±5%	90%
FWA220028A-13A	28.0V	7.8A	8.0A	±5%	90%
FWA220032A-13A	32.0V	6.8A	7.0A	±5%	91%
FWA220048A-13A	48.0V	4.6A	4.7A	±5%	91%

INPUT	
Input Voltage	85 – 264VAC 100 – 240VAC Nominal
Input Frequency	47 – 63Hz
Input Current	<3.0A rms
Inrush Current	<37A at 230VAC cold start
Zero Load Power Consumption	<0.21W
Power Factor	>.97
Earth Leakage Current (Typical)	<250µA @ 132VAC @ 60Hz <300µA @ 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	105 – 110%
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.

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General	
Efficiency	Avg. Efficiency 90.5% @ 115VAC; 92.5% @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	8.2" (208mm) x 2.9" (73mm) x 1.6" (39mm)
Weight	2.1 lbs (0.95 Kg)
Power Density	5.9W/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	5-95%, non-condensing
Cooling	Natural Convection
Vibration	All units production tested to 19.6m/s <sup>2</sup>

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 2nd Edition
	CAN/CSA-22.2 No.60950-1
	CB per IEC60950-1
	CE marked to LVD & EMC directive

Input Configuration	
Standard Input Cable	6ft. cable with US standard (Nema 5-15) 3-prong connector
Connection on Power Supply Body	IEC 320 C14 Receptacle

Output Configuration 24-32V	
Standard Output Cable	6 ft.
Mating Connector	4x18awg
Connector (PSU side)	Switchcraft DIN-8, P/N 15BL8MX (male pins)
Mating Connector	Switchcraft 62GB8FX (8 pin) or equivalent

Output Configuration 48V	
Standard Output Cable	6 ft.
Mating Connector	2x16awg
Connector (PSU side)	Switchcraft DIN-5, P/N 05GM5MX (male pins)
Mating Connector	Switchcraft 57GB5FX (5 pin) or equivalent

Output Configuration 12-18V	
Standard Output Cable	4 ft.
Mating Connector	4x16awg
Connector (PSU side)	Molex 6 pin P/N 39-01-2065
Mating Connector	Molex 39-01-2061 or 26-01-3116

Output Pin Assignments 24-32V		
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 48V		
Pin 1	Return	
Pin 2	Return	
Pin 3	+V1	
Pin 4	Return	
Pin 5	+V1	

Output Pin Assignments 12-18V		
Pin 1	Return	
Pin 2	Return	
Pin 3	Shield	
Pin 4	+V1	
Pin 5	+V1	
Pin 6	Not Used	

## Mechanical Drawing

