







## **ELPAC FWA020 SERIES CLASS I**

20 Watt ITE Desktop Power Supply

- · Safety Approval EN60950-1 Class I
- High Efficiency: Level VI
- · Hold-up Time >16ms at full load
- Fully Regulated DC output
- · EuP Directive Compliant
- LED Indicator
- 5-Year Limited Warranty

Model Number	Output Voltage	Output Current	Peak Current <sup>1</sup>	Total Regulation <sup>2</sup>	Typical Efficiency <sup>3</sup>
FWA020012A-10A	12.0V	1.6A	1.9A	±5%	88.4%
FWA020015A-10A	15.0V	1.3A	1.6A	±5%	88.4%
FWA020018A-10A	18.0V	1.1A	1.3A	±5%	88.1%
FWA020024A-10A	24.0V	0.8A	1.0A	±5%	87.8%

## Notes

- 1) Maximum peak load (21W) lasting 500ms with a maximum 10% duty cycle.
- 2) Includes initial setting, line regulation, load regulation, and thermal drift.
- 3) Typical at 115VAC

INPUT	
Input Voltage	85 – 264VAC 100 – 240VAC Nominal
Input Frequency	47 – 63Hz
Input Current	<1.0A rms
Inrush Current	<60A at 230VAC cold start
Zero Load Power Consumption	<0.1W
Earth Leakage Current	<100µA @ 132VAC @ 60Hz
(Typical)	<150µA @ 264VAC @ 60Hz

OUTPUT	
Output Voltage	See Table
Total Regulation	+/-5%
Minimum Load	No minimum load required
Start-Up Delay	<2.0s
Hold-Up Time	>16ms at any input voltage
Ripple & Noise	<1% pk-pk **
Over Voltage Protection	112 – 135%
Over Temperature Protection	First Stage - Recoverable; plus 2nd stage - Non Recoverable
Over Current Protection	108 – 180%
Short Circuit Protection	Shutdown, auto-restart (hiccup mode)

## Notes

<sup>\*\*</sup>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 90.7% @ 115VAC; 89.8% @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	3.53" (89.6mm) x 1.92" (48.4mm) x 1.00" (25.2mm)
Weight	0.3 lbs (0.16 Kg)
Power Density	2.95W/in³

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>
Altitude (Operating)	Rated to 5000M

EMC & Safety	
Emissions	FCC class B, CISPR22 class B EN6100-3-2, 3
Immunity	EN61000-4-2, -3, -4, -5, -6, -8, -11
Certified by TUV to the following:	cTUVus
	UL 606950-1
	CAN/CSA-22.2 No.950
	CB per IEC60950-1 2nd edition
	CE marked to LVD directive and RoHS II directive

Input Configuration	
Standard Input Cable	Not Provided
Connection on Power Supply Body	IEC 320 C6 Receptacle

Output Configuration	
Standard Output Cable	4ft
Cord Size	2x16awg zip
Connector (PSU side)	Switchcraft 760 or equivalent
Mating Connector	Switchcraft 760 or equivalent



