





20 Watt ITE Desktop Power Supply

- Safety Approval IEC62368-1 Class II
- High Efficiency: Level VI
- High Power Density 2.99W/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	<0.5A rms	
Inrush Current	<60A at 230VAC cold start	
Power Factor	N/A	
Zero Load Power	<0.075W	
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 – 135%
Over Temperature Protection	N/A
Over Current Protection	108 – 180%
Short Circuit Protection	Shutdown, auto-restart (hiccup mode)

Notes  $^{**}$ Ripple and noise measured with 20MHz bandwidth;  $10\mu F$  tantalum capacitor in parallel with a  $0.1\mu F$  ceramic capacitor.

Model Number	Output Voltage	Output Current	Peak Current <sup>1</sup>	Total Regulation <sup>2</sup>	Typical Efficiency <sup>3</sup>
FWA020012B-10A	12.0V	1.67A	2.0A	±5%	87%
FWA020015B-10A	15.0V	1.33A	1.6A	±5%	88%
FWA020018B-10A	18.0V	1.11A	1.33A	±5%	88%
FWA020019B-10A	19.0V	1.05A	1.26A	±5%	88%
FWA020024B-10A	24.0V	0.83A	1.0A	±5%	88%

## Notes

- 1) Maximum peak load (24W) 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 67400-242-AB can be ordered separately.

## **ELPAC FWA020 SERIES CLASS II**

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General	
Efficiency	Avg. Efficiency 88.0% @ 115VAC; Avg. Efficiency 88.0% @ 230VAC;
MTBF	min. 200,000 hours, SR-332 issue 3
Size	3.54" (90.0mm) x 1.91" (48.6mm) x 0.99" (25.2mm)
Weight	0.3 LBS (0.16 Kg)
Power Density	2.99W/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, 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-Available Separately(P/N 67400-242-AB)		
Connection on Power Supply Body	IEC 320 C8 Receptacle		
Standard Output Cable	4ft		
Output Cable Cord Size	2x18awg (12V, 15V) 2x20awg (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		
		Rtn	<b>-(</b> +v
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