



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## **FWA220 Series**

### 220 Watts ITE Desktop Power Supply

- High Efficiency
- High Power Density 5.9W/in<sup>3</sup>
- 5-Year Limited Warranty
- LED Status Indicator
- IPX1 Rated
- Hold-up Time > 25ms at full load
- ITE Approval - EN609501-1 Class I
- Level V, EISA, EuP Directive Compliant
- CEC Compliant

## **Overview**

Over the later part of 2015, we will be changing the way we sell ITE power supplies thru distribution to no longer include AC cords with the units. During this time of transition you find both versions available for sale. They can be distinguished by the part number, parts ending in -11B or -12B will include a cord in the box, parts ending in -11A or -12A will not include a cord. If your distributor has not already made a recommendation on a cord, please do not hesitate to ask us for assistance.

Elpac Part Number	Output Voltage	Output Current	Peak Current	Total Regulation	Typical Efficiency
FWA220012A-13B	12.0V	18.3A	19.0A	±5%	89%
FWA220012A-13A	12.0V	18.3A	19.0A	±5%	89%
FWA220015A-13B	15.0V	14.6A	15.2A	±5%	89%
FWA220015A-13A	15.0V	14.6A	15.2A	±5%	89%
FWA220018A-13B	18.0V	12.2A	12.7A	±5%	90%
FWA220018A-13A	18.0V	12.2A	12.7A	±5%	90%
FWA220024A-12B	24.0V	9.2A	9.5A	±5%	90%
FWA220024A-12A	24.0V	9.2A	9.5A	±5%	90%
FWA220028A-12A	28.0V	7.8A	8.0A	±5%	90%
FWA220028A-12B	28.0V	7.8A	8.0A	±5%	90%
FWA220032A-12B	32.0V	6.8A	7.0A	±5%	91%
FWA220032A-12A	32.0V	6.8A	7.0A	±5%	91%
FWA220048A-11B	48.0V	4.6A	4.7A	±5%	91%
FWA220048A-11A	48.0V	4.6A	4.7A	±5%	91%

### Input

Input Voltage	85 - 264VAC; 100 - 240VAC Nominal
Input Frequency	47 - 63Hz
Input Current	<3A rms
Inrush Current	<37A at 230VAC cold start
Power Factor	>0.97
Zero Load Power Consumption	<0.5W
Earth Leakage Current (Typical)	<2050µA @ 132VAC @ 60Hz (typical) <300µA @ 264VAC @ 60Hz (typical)

## 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)


## 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 (0.95kg)
Power Density	5.9 W/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	Not Provided
Connection on Power Supply Body	IEC 320 C14 Receptacle

## Output Configuration (12V - 18V)

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

## Output Configuration (24V - 32V)

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

### Output Configuration (48V)

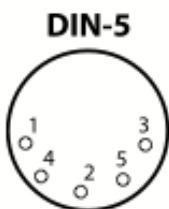
Standard Output Cable	6 ft.
Cord Size	2x16awg
Connector (PSU side)	Switchcraft DIN-5, P/N 05GM5MX (male pins)
Mating Connector	Switchcraft 57GB5FX (5 pin) or equivalent

### 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

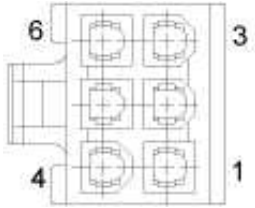
### Output Pin Assignments



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

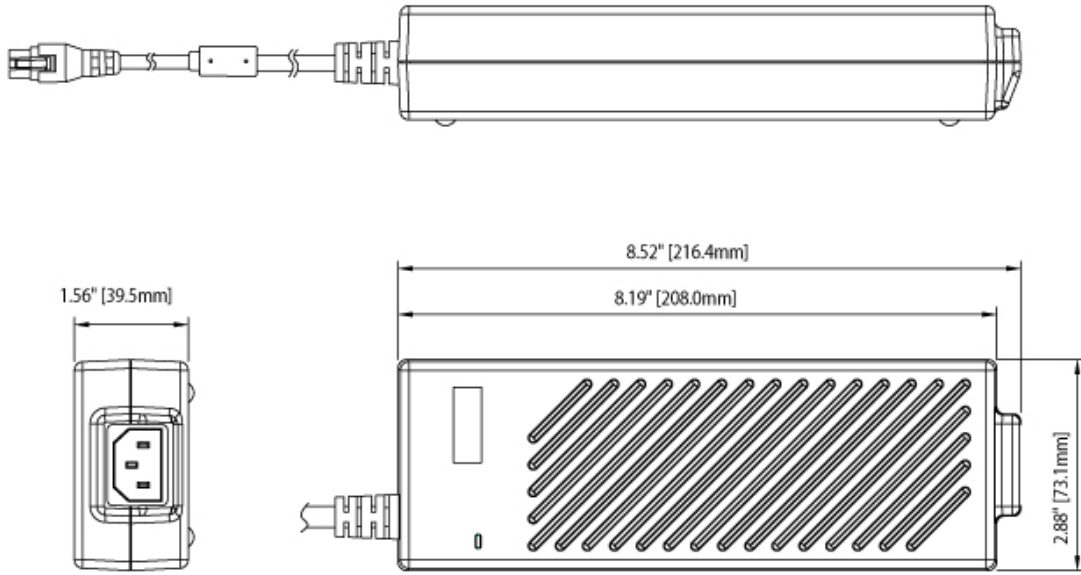
**Output Pin Assignments  
(12V-18V)**

**(viewed from the  
open/user end)**



Pin 1	Return
Pin 2	Return
Pin 3	Shield
Pin 4	+V1
Pin 5	+V1
Pin 6	Not Used

12V Model



24V-48V Models

