



**International  
Components  
Corporation**

TM

# FWC50 Series

50 Watts  
Switch Mode Power Supply

**Elpac Power Systems™**

HIGHER EFFICIENCY, HIGHER POWER DENSITY, UNCOMPROMISED RELIABILITY



## TECHNICAL SUPPORT

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## ENERGY STAR PARTNER

As a Global Supplier of Power Supplies, we are committed to meeting energy efficiency standards around the world. That is why we have partnered with the ENERGY STAR® Program and engineer our Elpac Power Systems™ to meet strict energy-efficiency guidelines established by the EPA and the US Department of Energy (DOE). The Energy Star program has developed International partnerships with countries and organizations in major global markets. Those participating in the program include Australia, Canada, European Union, European Free Trade Association, Japan, New Zealand, and Taiwan.

Furthering our International commitment, we have signed the EU Code of Conduct on Efficiency of External Power Supplies. Our Elpac Power Systems™ FWC18 series meets the efficiency standards of the International ENERGY STAR® program and the EU Code of Conduct.



**5-YEAR LIMITED WARRANTY\***

- High Efficiency
- Fully Regulated DC Output
- Lifetime Expectation >5 years
- Hold-up Time >14ms at full load
- Safety Approval - EN60950-1 Class I
- ENERGY STAR Level V
- CEC Compliant

| Input                             |                                     |
|-----------------------------------|-------------------------------------|
| Input Voltage                     | 85 – 264VAC<br>100 – 240VAC Nominal |
| Input Frequency                   | 47 – 63Hz                           |
| Input Current                     | <1.0A rms                           |
| Inrush Current                    | <37A at 230VAC cold start           |
| Zero Load Power Consumption       | <0.3W                               |
| Touch Current/<br>Leakage Current | <200µA @ 132VAC @ 60Hz              |
|                                   | <350µA @ 264VAC @ 60Hz              |

| Output                      |                                                         |
|-----------------------------|---------------------------------------------------------|
| Output Voltage              | See Table                                               |
| Total Regulation            | +/-5%                                                   |
| Minimum Load                | No minimum load required                                |
| Start-Up Delay              | <250ms                                                  |
| Hold-Up Time                | >14ms at any input voltage                              |
| Ripple & Noise              | <1% pk-pk **                                            |
| Over Voltage Protection     | 110 – 135%                                              |
| Over Temperature Protection | Active - Recoverable; plus<br>Passive - Non Recoverable |
| Over Current Protection     | 120 – 180%                                              |
| Short Circuit Protection    | Shutdown, auto-restart<br>(hiccup mode)                 |

### Notes

\*visit [www.iccus.com](http://www.iccus.com) for complete details

\*\*Ripple and noise measured with 20MHz bandwidth; 10µF tantalum capacitor in parallel with a 0.1µF ceramic capacitor.





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| Model Number <sup>1</sup> | Output Voltage | Output Current | Peak Current <sup>2</sup> | Total Regulation <sup>3</sup> | Typical Efficiency <sup>4</sup> |
|---------------------------|----------------|----------------|---------------------------|-------------------------------|---------------------------------|
| FWC5012-760F              | 12.0V          | 4.2A           | 5.0A                      | ±5%                           | 83%                             |
| FWC5018-760F              | 18.0V          | 2.8A           | 3.3A                      | ±5%                           | 86%                             |
| FWC5024-760F              | 24.0V          | 2.1A           | 2.5A                      | ±5%                           | 87%                             |

#### Notes

- 1) All models ship standard with US version input cable.
- 2) Maximum peak load (60W) lasting 500ms with a maximum 10% duty cycle.
- 3) Includes initial setting, line regulation, load regulation, and thermal drift.
- 4) Typical at 115VAC (including output cable).

| General    |                                                      |
|------------|------------------------------------------------------|
| Efficiency | Avg Efficiency 86.7% @ 115VAC;<br>86.9% @ 230VAC     |
| MTBF       | min. 100,000 hours demonstrated                      |
| Size       | 5.00" (127.0mm) x 3.00" (76.2mm) x<br>1.30" (33.0mm) |
| Weight     | 0.75 lbs (.34 kg)                                    |

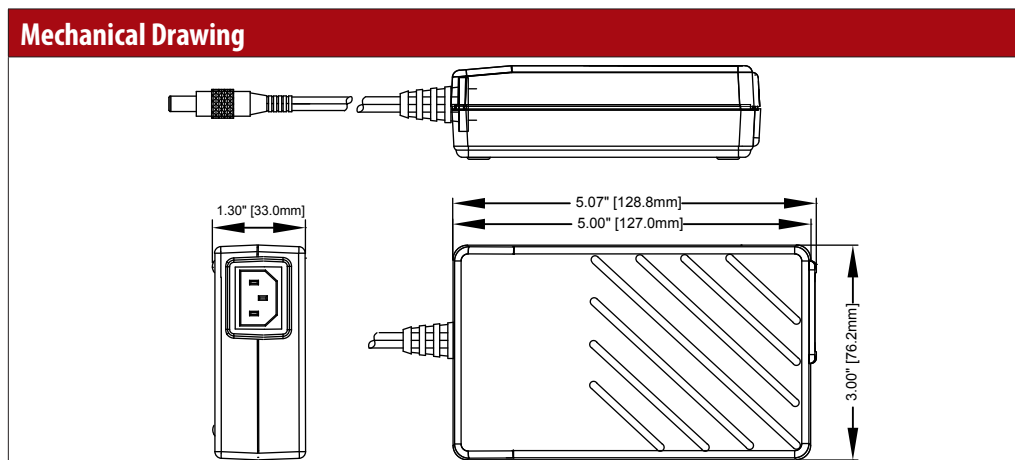
| Environmental         |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| Operating Temperature | 0 – 60°C (Full load to 40°C, derate linearly to 50% load at 60°C) |
| Storage Temperature   | -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<br>EN61000-3-2, -3 |
| Immunity                           | EN61000-4-2, -3, -4, -5, -6, -8, -11            |
| Certified by TUV to the following: | cTUVus                                          |
|                                    | UL 60950-1                                      |
|                                    | CAN/CSA-22.2 No.60950-1                         |
|                                    | CB per IEC60950-1                               |
| CE marked to LVD & EMC Directive   |                                                 |

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

| Output Configuration  |                                |
|-----------------------|--------------------------------|
| Standard Output Cable | 6ft                            |
| Connector (PSU side)  | Switchcraft 760 or equivalent  |
| Mating Connector      | Switchcraft 712A or equivalent |

| Output Pin Assignments |        |  |
|------------------------|--------|--|
| Center                 | +V1    |  |
| Outside                | Return |  |



| Ordering Options Available |  |
|----------------------------|--|
| Floating Output            |  |
| Ferrite Cores              |  |
| Custom Imprinting          |  |
| Special Packaging          |  |
| Special Labeling           |  |
| Output Cord Lengths        |  |
| Overmolding                |  |