

# PW170KB

Universal 10 – 15 Watt Series

ITE Switch-Mode Power Supply



3 Year Warranty

- 100-240VAC Universal Input
- Desktop and Wall-Plug Style with either fixed blades, or Interchangeable Blades\* ( Kit sold separately)
- 5V to 48V Single Output Models, up to 15W
- Modified and Custom Designs Available
- Regulated Output with Low Ripple
- Impact-Resistant Polycarbonate Enclosure
- No load Power Consumption < 0.5W
- Meets EISA Requirements (see next page for details).
- Meets Energy Star Level IV



International Safety Standard Approvals



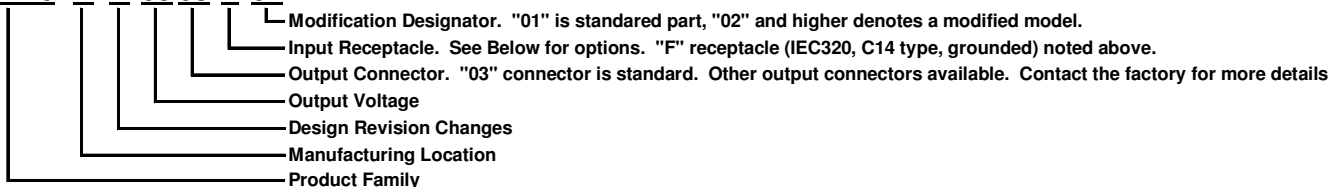
## Specifications

All Specifications are typical at nominal input, full load at 25°C unless otherwise stated.

|   |  |
|---|--|
| <b>AC Input</b><br>100-240VAC, +/-10% (class I), +6%, -10% (class II), 47-63 Hz, 1Ø.    | <b>MTBF</b><br>>100,000 hours (calculated)   |
| <b>Input Current</b><br>90VAC: 0.4A   | <b>Hold-up Time</b><br>18 ms min. @ 115VAC   |
| <b>Inrush Current</b><br>Inrush limiting provided.                                      | <b>Overvoltage Protection</b><br>Built-in  |
| <b>Input Fuses</b><br>Internal Primary Current Fuse is provided.                        | <b>Overload Protection</b><br>Hiccup Mode  |
| <b>Efficiency</b><br>Meet EISA Requirements – see page 2                                | <b>Short Circuit Protection</b><br>Hiccup Mode   |
| <b>Output Voltage</b><br>See chart.   | <b>Topology</b><br>Switching – Fixed Frequency Flyback   |
| <b>Output Power</b><br>See chart  | <b>Approvals and Safety Standards</b><br>EN/IEC/CSA/UL60950-1, EMC: EN55022/55024/61000  |
| <b>Ripple and Noise</b><br>1% pk-pk max., 20MHz BW                                      | <b>Dielectric Withstand</b><br>Input-Output: 3000VAC, Input-GND: 1500VAC, Output-GND: 500VDC   |
| <b>Line &amp; Load Voltage Regulation</b><br>Excluding Cord: Line: +/- 1%, Load: +/-5%. | <b>Operating Temperature</b><br>0° to 40°C, no derating  |
| <b>Transient Response</b><br>500µs max., 50% load step, typical                         | <b>Storage Temperature</b><br>-30 to +85°C.  |
| <b>Minimum Load</b><br>Not required.  | <b>Relative Humidity</b><br>5% to 95%, non-condensing  |
| <b>Case Material:</b><br>Black 94V0 Polycarbonate                                       | <b>Altitude</b><br>0 to 10,000 ft.   |
| <b>Case Dimensions:</b><br>See outline drawing.   | <b>Output Connections:</b><br>Cable: 18AWG, 1800mm (5V & 6V models: 1500mm), 2 conductor.<br>Connector: 2.5mm barrel type (Ault #3) connector, center contact (+).<br>Other connector options are available. |

## Model Number Key

**PW170 K B 05 03 F 01**



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| Model Number   | Volts (V) | Output Current (max) | Max Watts | Ripple (Vp-p max) |
|----------------|-----------|----------------------|-----------|-------------------|
| PW170KB0503F01 | 5 V       | 2.00 A               | 10.0 W    | 50mV              |
| PW170KB0603F01 | 6 V       | 1.67 A               | 12.0 W    | 60mV              |
| PW170KB0903F01 | 9 V       | 1.50 A               | 13.5 W    | 90mV              |
| PW170KB1203F01 | 12 V      | 1.20 A               | 15.0 W    | 120mV             |
| PW170KB1503F01 | 15 V      | 1.00 A               | 15.0 W    | 150mV             |
| PW170KB1803F01 | 18 V      | 0.84 A               | 15.0 W    | 180mV             |
| PW170KB2403F01 | 24 V      | 0.63 A               | 15.12 W   | 240mV             |
| PW170KB4803F01 | 48 V      | 0.32 A               | 14.88 W   | 480mV             |

Note: Part numbers above include #3 output connector and IEC320 C14 grounded input receptacle. See below for other options.

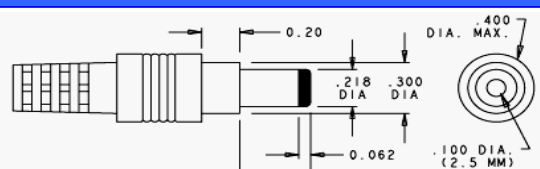
| Input Receptacle Options |                           |                        | Output Connector                     |                            |                  |                          |                     |
|--------------------------|---------------------------|------------------------|--------------------------------------|----------------------------|------------------|--------------------------|---------------------|
| <b>DESKTOP OPTIONS</b>   |                           |                        | <b>WALL-PLUG OPTIONS</b>             |                            |                  |                          |                     |
|                          |                           |                        |                                      |                            |                  |                          |                     |
| IEC320 C14 Grounded (F)  | IEC320 C18 Ungrounded (Q) | IEC320 C8 "Shaver" (N) | N. America Japan Interchangeable (B) | N. America Japan Fixed (C) | Europe Fixed (M) | United Kingdom Fixed (G) | Australia Fixed (H) |

Notes:

- For Desktop options, choose the applicable letter above.
- For Wall-plug options, choose the applicable letter above. The model will then be fitted only with the receptacle chosen. The North American blade version (B) will be an interchangeable blade. The other options (C), (M), (G), and (H), will be fixed blades molded in the case.
- Blade Kit is available which will include one each of a EU, UK, and Aust blade. Kit part number is KT1027K. Can be used with (B) version only, to allow blades to be interchanged.

Notes:

- Ault #3 Connector
- Center Contact = Positive
- Connector is Switchcraft 760 plug or equivalent.
- Suggested Mating Connector is Switchcraft 712A jack or equivalent.
- Other output connector options are available. Contact your local representative for details.



## 2007 Energy Independence and Security Act - EISA

The Energy Independence and Security Act of 2007 was passed in December of 2007 and addresses minimum efficiency standards and standby levels for Class A external power supplies that are 250 Watts and under. This law stipulates that external power supplies manufactured on July 1, 2008 and beyond meet certain minimum efficiency and standby criteria as defined below.

### Minimum Efficiency Criteria:

Active mode is defined as when a power supply's input is connected to a line voltage AC and it's output is connected to a DC or AC load, drawing a portion of the product's power output. Depending upon the power rating for the power supply, it must meet the minimum efficiency criteria outlined below.

### Energy-Efficiency Criteria for Active Mode:

| Output Power on Adapter Label | Minimum Average Efficiency Percentage                |
|-------------------------------|--|
| 0 to < 1 Watt                 | ≥ 0.50 * output power on the label                   |
| > 1 watt to ≤ 51 watts        | ≥ [0.09 * Ln (output power on adapter label)] + 0.50 |
| > 51 watts                    | ≥ 0.85   |

### Energy Consumption Criteria for No Load Mode:

The power supply must also meet a requirement for when its input is connected to line voltage AC but its output is not connected to a load. Depending upon the power output of the supply, it must keep its energy consumption below the following values:

| Output Power on Adapter Label | Maximum Power Consumption in No-Load Mode |
|-------------------------------|---|
| 0 to < 250 Watts              | ≤ 0.50 watts                              |

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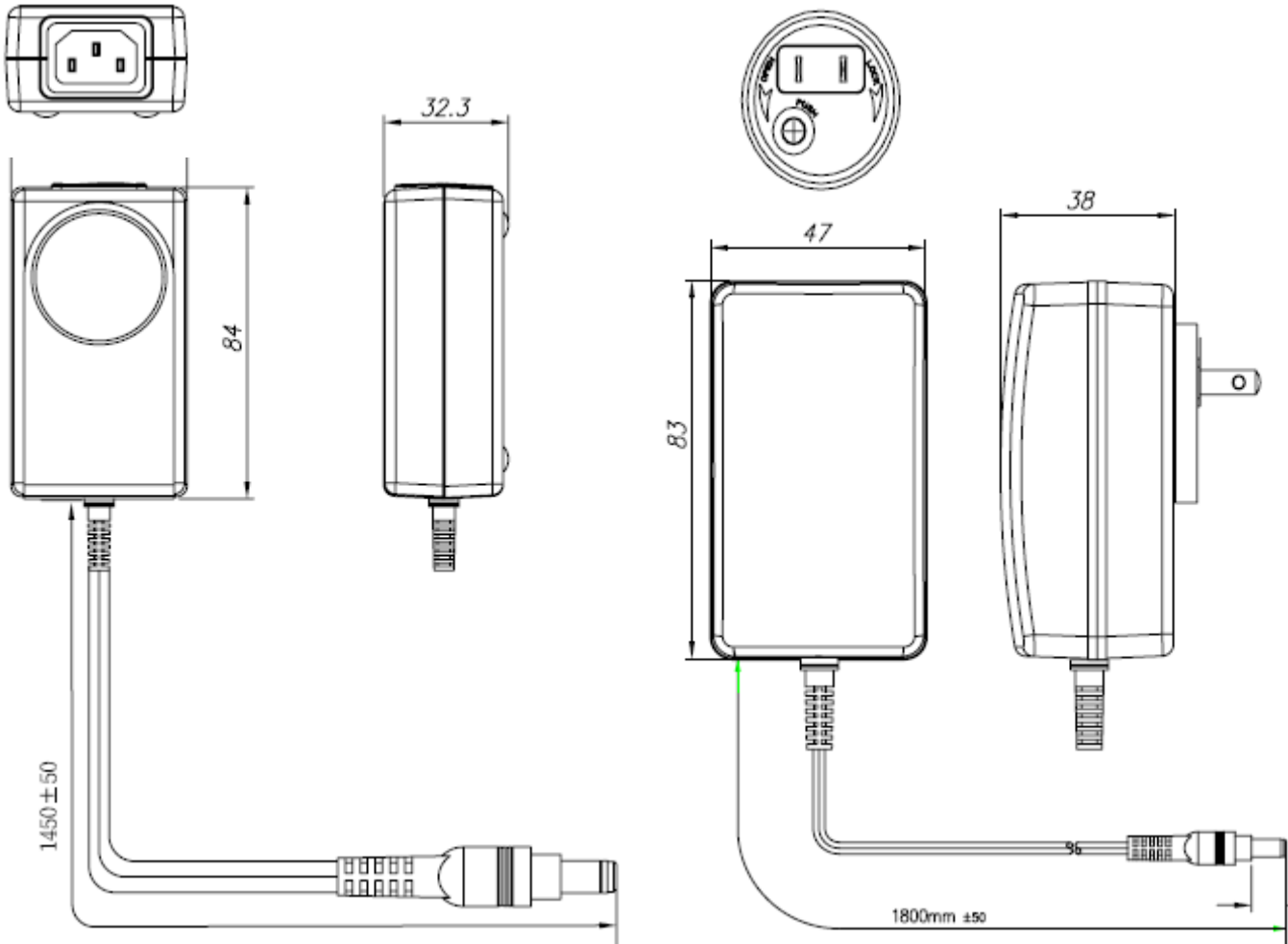
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## Outline Drawings



Dimensions are in mm

[Desktop Style \(Option "F" shown\)](#)

[Wallplug Style \(Option "B" shown\)](#)