

# UPE65-U Series

## 65-75 Watts

### Triple Output Switching Power Supply

#### Features:

- \* Small 5.00 x 3.30 x 1.50" U-Frame Package
- \* V1 & V2 Power Share for Flexible Load Conditions
- \* Convection Cooled Operation
- \* Universal AC Input (47-63 Hz)
- \* 100,000 hours MTBF (25°C Full Load Operation)
- \* Class B Emissions
- \* International Safety Approvals & CE Mark
- \* 3 Year Warranty



#### Input Specifications:

|                        |                                              |
|------------------------|----------------------------------------------|
| Input Range            | Universal VAC (90-264 VAC) & 120-370 VDC     |
| Input Frequency        | 47-63 Hz or DC                               |
| Inrush Current         | 25A @ 115VAC / 50A @ 230VAC max (cold start) |
| Input Current          | 1800mA @ 90 VAC / 800mA @ 200 VAC Maximum    |
| Input Reflected Ripple | FCC 68 part 15 Class B                       |
| Efficiency             | 65% Typical (depending on output model)      |
| Input Protection       | Single Fused (4 Amp / 250 V)                 |
| Hold-up Time           | Half Cycle Minimum @ 120 VAC and 80% load    |
| Leakage Current        | < 750 $\mu$ A maximum @ 264 VAC              |
| Harmonics              | EN61000-3-2 Class D                          |

#### Output Specifications:

|                          |                                     |
|--------------------------|-------------------------------------|
| Adjustment Range         | Fixed at Factory                    |
| Minimum Load             | See Output Table                    |
| Regulation               | V1 & V2 = 3%   V3 = 10% max         |
| Ripple / Noise           | $\pm$ 1% pk-pk max (20MHz)          |
| Transient Response       | +/- 5% Deviation / < 1msec recovery |
| Set-Point Accuracy       | $\pm$ 2%                            |
| Short Circuit Protection | Continuous                          |
| Over Load Protection     | 125-150%, automatic recovery        |
| Over Voltage Protection  | 120-150%, latched shutdown          |

#### Emissions Standards

|                      |                       |
|----------------------|-----------------------|
| FCC Part 15J, Part 2 | Within Class B Limits |
| EN55022 / CISPR22    | Within Class B Limits |

#### Electromagnetic Compatibility:

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Electrostatic Discharge | EN61000-4-2, $\pm$ 4KV Contact / $\pm$ 8KV Air Discharge |
| Radiated Susceptibility | EN61000-4-3, 26-1000MHz, 10V/M, 80% AM                   |
| EFT / Bursts            | EN61000-4-4, $\pm$ 2KV                                   |
| Surges                  | EN61000-4-5, $\pm$ 2KV Line-Earth, $\pm$ 1KV Line-Line   |
| Conducted Immunity      | EN61000-4-6, 0.15 - 800MHz, 10V, 80% AM                  |
| Voltage Dips            | EN61000-4-11, 95% Dip & 10ms, 30% Dip & 500ms            |
| Voltage Interruptions   | EN61000-4-11, 95% Reduction, 5s                          |
| Radiated Emissions      | FCC 68 part 15 Class B                                   |
| Conducted Emissions     | FCC 68 part 15 Class B                                   |
| Harmonic Current        | EN61000-3-2 Class D                                      |
| Fluctuations & Flicker  | EN61000-3-3                                              |

#### Environmental Specifications:

|                   |                                                       |
|-------------------|-------------------------------------------------------|
| Operating Temp    | 0 ~ 50°C (De-Rate 2.5%/1°C Rise To + 70°C)            |
| Storage Temp      | -20 ~ +85°C                                           |
| Cooling           | 31.5 cfm airflow required for full load or derate 25% |
| Temp Co-Efficient | 0.05% per degrees celsius                             |
| Humidity          | 5 to 95% RH Non-Condensing                            |
| Vibration         | 3 Axes 1 Oct/min, 5 min at 4 Res. 0.75G Pk, 5-500Hz   |
| Shock             | 20G Peak Acceleration                                 |
| Reliability       | > 100k hours MTBF (Full Load and 25°C Operation)      |

#### International Safety Approvals

|           |                                                          |
|-----------|----------------------------------------------------------|
| Standards | UL 60950 (3rd Edition) File # E158470                    |
|           | CSA 22.2 No. 60950                                       |
|           | TUV EN60950                                              |
|           | CB Report (IEC 60950 3rd Edition) File # E158470-A2-CB-1 |
|           | CE Mark (LVD)                                            |

**PowDec**  
Technologies, Inc.

PowDec Technologies (Taiwan) Inc.  
No. 9, Alley 9, Lane 392, Fu Teh  
1st Road Hsi Chih, Taipei Hsien, Taiwan, 22150  
Tel: (02) 2694-2760  
Fax: (02) 2694-2753  
E-mail: powdec@ms3.hinet.net  
<http://www.powdec.com.tw>

PowDec Technologies (USA) Inc.  
7013 Realm Drive, Suite E  
San Jose, CA 95119 U.S.A.  
Tel: (408) 362-9388  
E-mail: tedkang@powdec.com  
<http://www.powdec.com>

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## Output Table:

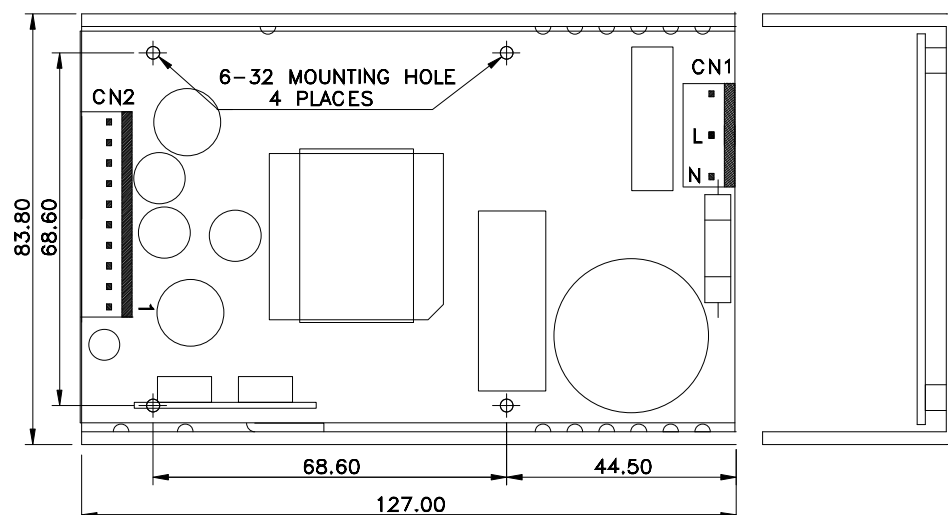
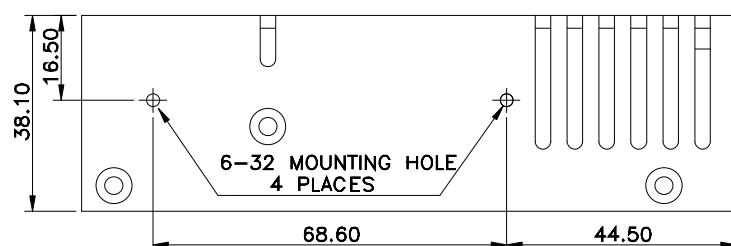
| Model Number | V1      | Io Min | Io Max | V2     | Io Min | Io Max | V3     | Io Min | Io Max |
|--------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| UPE65-31-U   | +3.3VDC | 1000mA | 10.0A  | +5VDC  | 1000mA | 10.0A  | +12VDC | 100mA  | 1.0A   |
| UPE65-33-U   | +3.3VDC | 1000mA | 12.0A  | +5VDC  | 1000mA | 10.0A  | +12VDC | 100mA  | 1.0A   |
| UPE65-32-U   | +5VDC   | 1000mA | 10.0A  | +12VDC | 500mA  | 5.0A   | -12VDC | 100mA  | 1.0A   |
| UPE65-34-U   | +5VDC   | 1000mA | 10.0A  | +12VDC | 500mA  | 5.0A   | +24VDC | 100mA  | 500mA  |
| UPE65-35-U   | +3.3VDC | 1000mA | 10.0A  | +5VDC  | 1000mA | 10.0A  | -5VDC  | 100mA  | 1.0A   |
| UPE65-36-U   | +5VDC   | 1000mA | 6.0A   | +15VDC | 300mA  | 1.58A  | -15VDC | 100mA  | 750mA  |

Note: Total Output Power May not exceed 75 Watts for UPE65-33-U Model and 65 Watts for all other models.

## Mechanical Specifications:

Construction: U-Frame

Weight: 0.943 lb / 0.428



## Input Pin Assignmnets:

CN1-1 Neutral  
CN1-2 Line

## Output Pin Assignmnets:

CN2-1 V3  
CN2-2 V1  
CN2-3 V1  
CN2-4 V1  
CN2-5 RTN  
CN2-6 RTN  
CN2-7 RTN  
CN2-8 V2  
CN2-9 V2  
CN2-10 V2

## Mating Connectors:

CN1 (AC Input) Mating Connector:  
Molex 09-52-4034 (5239 series)

CN2 (DC Output) Mating Connector:  
Molex 09-52-4104 (5239 series)

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No. 9, Alley 9, Lane 392, Fu Teh  
1st Road Hsi Chih, Taipei Hsien, Taiwan, 22150  
Tel: (02)2694-2760  
Fax: (02)2694-2753  
E-mail: powdec@ms3.hinet.net  
http://www.powdec.com.tw

PowDec Technologies (USA) Inc.  
7013 Realm Drive, Suite E  
San Jose, CA 95119 U.S.A.  
Tel: (408) 362-9388  
E-mail: tedkang@powdec.com  
http://www.powdec.com