

# AC/DC External Desktop

## 80 Watts HUP80 Series

**XPiQ inc.**

Intelligent Design Quality Product



- Meets EN61000-3-2
- Built-in EMI Filter
- 100% Burn-in
- Input Surge Current Protection
- CE Mark
- Approved to UL, CSA and TUV Safety Standards
- Wide Input Voltage 90-264 VAC

## Specification

All specifications typical at nominal line, full load and 25°C

### Input

- *Input Voltage* • 90-264 VAC
- *Input Frequency* • 47 to 63 Hz
- *Input Current* • 1.9A maximum

### Output

- *Output Voltage:* • See Tables
- *Output Current* • See Tables
- *Output Power Range* • 0 to 80 Watts
- *Ripple and Noise* • 1% peak to peak max.
- *Overvoltage Protection* • Provided on output #1 only set at 112-132% of its nominal voltage
- *Overcurrent Protection:* • All outputs protected to short circuit conditions
- *Temperature coefficient:* • All outputs  $\pm 0.04\%/^{\circ}\text{C}$  maximum
- *Transient Response* • Maximum excursion of 4% or better on all models. Recovers to 1% of final value within 500  $\mu\text{s}$  after a 25% step load change

### General

- *Efficiency* • 83% typical
- *Hold-up time* • 12 msec minimum
- *Line Regulation* •  $\pm 1\%$  maximum at full load
- *Inrush Current* • 15A max. at 115 VAC or 30A max. at 230 VAC cold start
- *Withstand Voltage* • 3000 VAC from input to output  
1500 VAC from input to ground  
500 VAC from output to ground
- *Insulation Resistance* • 100 Mohm minimum from output to ground

### Environmental

- *Operating Temperature* • 0 °C to +70 °C, derate linearly from 100% load at +40 °C to 50% load at +70 °C
- *Storage Temperature* • -40 °C to +85 °C
- *MTBF* • 100,000 hours minimum at full load at 25 °C ambient

### EMC & Safety

- *EMI Requirement* • Meets conducted and radiated limits of
  - a) FCC Part 15 Class B
  - b) CISPR 22 Class B
- *Safety Requirements* • Approved to:
  - a) UL 1950
  - b) CSA C22.2 No. 234 per cUL
  - c) EN60950

# OUTPUT VOLTAGE & CURRENT RATINGS

**HUP80**

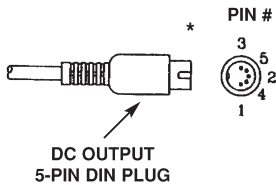
| Max Output Power | Output #1 |       |        |      | Output #2 |       |       |                     | Output #3 |       |       |                     | Model Number |
|------------------|-----------|-------|--------|------|-----------|-------|-------|---------------------|-----------|-------|-------|---------------------|--------------|
|                  | Vnom      | Imin  | Imax   | Tol. | Vnom      | Imin  | Imax  | Tol. <sup>(1)</sup> | Vnom      | Imin  | Imax  | Tol. <sup>(1)</sup> |              |
| 50 W             | 3.3 V     | 0.0 A | 15.1 A | 5%   |           |       |       |                     |           |       |       |                     | HUP80-00     |
| 65 W             | 5.0 V     | 0.0 A | 13.0 A | 5%   |           |       |       |                     |           |       |       |                     | HUP80-10     |
| 70 W             | 7.0 V     | 0.0 A | 9.9 A  | 4%   |           |       |       |                     |           |       |       |                     | HUP80-10-1   |
| 75 W             | 10.0 V    | 0.0 A | 7.5 A  | 3%   |           |       |       |                     |           |       |       |                     | HUP80-11     |
| 80 W             | 12.0 V    | 0.0 A | 6.6 A  | 3%   |           |       |       |                     |           |       |       |                     | HUP80-12     |
| 80 W             | 15.0 V    | 0.0 A | 5.3 A  | 3%   |           |       |       |                     |           |       |       |                     | HUP80-13     |
| 80 W             | 18.0 V    | 0.0 A | 4.4 A  | 3%   |           |       |       |                     |           |       |       |                     | HUP80-13-1   |
| 80 W             | 24.0 V    | 0.0 A | 3.3 A  | 2%   |           |       |       |                     |           |       |       |                     | HUP80-14     |
| 80 W             | 30.0 V    | 0.0 A | 2.7 A  | 2%   |           |       |       |                     |           |       |       |                     | HUP80-16     |
| 80 W             | 36.0 V    | 0.0 A | 2.2 A  | 2%   |           |       |       |                     |           |       |       |                     | HUP80-17     |
| 80 W             | 48.0 V    | 0.0 A | 1.7 A  | 2%   |           |       |       |                     |           |       |       |                     | HUP80-18     |
| 60 W             | +5.0 V    | 0.5 A | 7.0 A  | 5%   | +12 V     | 0.3 A | 3.0 A | 5%                  |           |       |       |                     | HUP80-23     |
| 60 W             | +5.0 V    | 0.5 A | 7.0 A  | 5%   | +15 V     | 0.1 A | 3.0 A | 5%                  |           |       |       |                     | HUP80-24     |
| 60 W             | +5.0 V    | 0.5 A | 7.0 A  | 5%   | +24 V     | 0.2 A | 2.0 A | 5%                  |           |       |       |                     | HUP80-25     |
| 60 W             | +5.0 V    | 0.5 A | 7.0 A  | 5%   | -24 V     | 0.2 A | 2.0 A | 5%                  |           |       |       |                     | HUP80-25-1   |
| 38 W             | +3.3 V    | 0.5 A | 7.0 A  | 5%   | +5 V      | 0.1 A | 3.0 A | 5%                  |           |       |       |                     | HUP80-26     |
| 56 W             | +3.3 V    | 0.5 A | 7.0 A  | 5%   | +12 V     | 0.1 A | 2.7 A | 5%                  |           |       |       |                     | HUP80-27     |
| 65 W             | +5.0 V    | 0.5 A | 6.0 A  | 5%   | +12 V     | 0.1 A | 2.7 A | 5%                  | -5 V      | 0.1 A | 0.3 A | 5%                  | HUP80-30     |
| 59 W             | +5.0 V    | 0.5 A | 6.0 A  | 5%   | +12 V     | 0.1 A | 2.1 A | 5%                  | -12 V     | 0.1 A | 0.3 A | 5%                  | HUP80-31     |
| 65 W             | +5.0 V    | 0.5 A | 6.0 A  | 5%   | +15 V     | 0.1 A | 2.1 A | 5%                  | -15 V     | 0.1 A | 0.2 A | 5%                  | HUP80-32     |
| 63 W             | +3.3 V    | 0.5 A | 7.0 A  | 5%   | +12 V     | 0.1 A | 3.0 A | 5%                  | -5 V      | 0.1 A | 0.8 A | 5%                  | HUP80-36-1   |
| 65 W             | +3.3 V    | 0.5 A | 7.0 A  | 5%   | +12 V     | 0.1 A | 3.0 A | 5%                  | -12 V     | 0.1 A | 0.8 A | 5%                  | HUP80-36-3   |
| 65 W             | +5.0 V    | 0.5 A | 6.0 A  | 5%   | +24 V     | 0.1 A | 1.2 A | 5%                  | -12 V     | 0.1 A | 0.4 A | 5%                  | HUP80-39     |
| 65 W             | +5.0 V    | 0.5 A | 7.0 A  | 5%   | +24 V     | 0.1 A | 2.0 A | 5%                  | -24 V     | 0.1 A | 0.5 A | 5%                  | HUP80-39-1   |

**Notes**

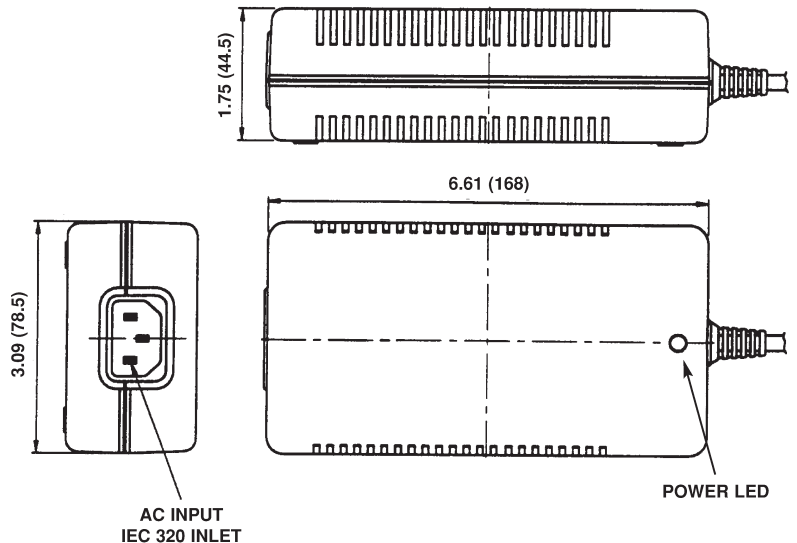
1. Total regulation includes tolerance, line regulation and load regulation.
2. For optional On/Off switch, add suffix 'S' to model number.

## Mechanical Details

| PIN CONNECTIONS 5-Pin is Standard |        |           |           |
|-----------------------------------|--------|-----------|-----------|
| Pin                               | Single | Dual      | Triple    |
| 1                                 | Common | Common    | Common    |
| 2                                 | Common | Common    | Common    |
| 3                                 | Output | Output #1 | Output #1 |
| 4                                 | Common | Common    | Output #3 |
| 5                                 | Output | Output #2 | Output #2 |



For HUP80-00 and HUP80-10 only:  
Output connector is an 8-pin DIN connector.  
Pin 3, 5, 7 and 8 are +Vout. Pins 1, 2, 4 and 6 are Common.



**NOTES:**

1. Dimensions shown in inches (mm).
2. Tolerance 0.04" (1.0mm) maximum.
3. Cable length is 48.0".
4. Optional output connectors available consult factory.
5. Weight: 400-500 g approx.
6. Multiple output models include a ferrite bead on the output cable.