

### 30 Watts

- Ultra Slim Design
- Ambient Operation from -25 °C to +70 °C
- High Efficiency
- Wide Output Adjustment Range
- 5 V to 24 V Nominal Outputs
- <0.3 W No Load Input Power
- 3 Year Warranty



#### Dimensions:

##### DPC30:

3.6 x 0.89 x 3.94" (90.0 x 22.5 x 100.0 mm)

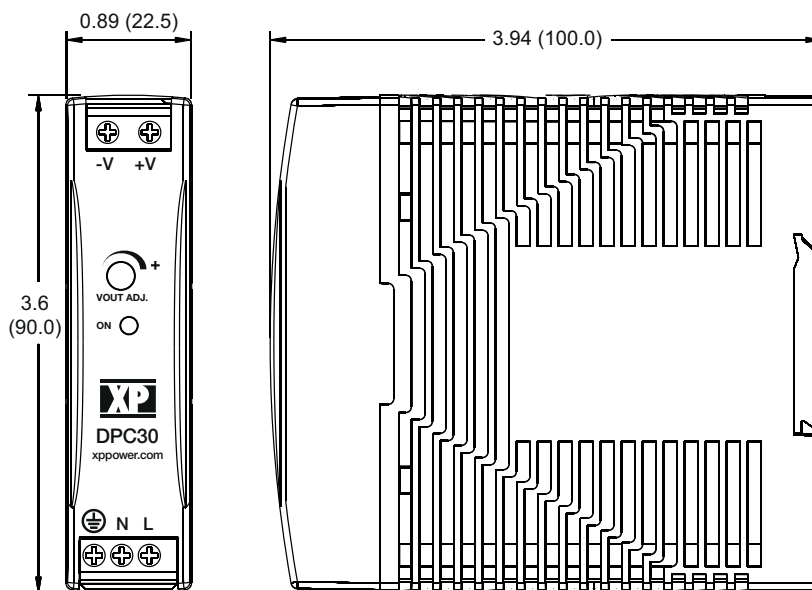
### Models & Ratings

| Output Voltage | Output Power | Output Voltage Trim <sup>(2)</sup> | Output Current | Typical Efficiency <sup>(1)</sup> | Model Number |
|----------------|--------------|------------------------------------|----------------|-----------------------------------|--------------|
| 5 V            | 20 W         | 4.5-5.5 V                          | 4.00 A         | 82%                               | DPC30US05    |
| 12 V           | 24 W         | 11.4-15.6 V                        | 2.00 A         | 85%                               | DPC30US12    |
| 24 V           | 30 W         | 22.5-28.5 V                        | 1.25 A         | 86%                               | DPC30US24    |

### Notes

1. Typical efficiency at 230 VAC and full load.
2. Output current should be limited so that nominal output power is not exceeded.

### Mechanical Details



### Input

| Characteristic            | Minimum                              | Typical   | Maximum | Units | Notes & Conditions               |
|---------------------------|--------------------------------------|-----------|---------|-------|----------------------------------|
| Input Voltage - Operating | 85                                   |           | 264     | VAC   | See input voltage derating curve |
| Input Frequency           | 47                                   | 50/60     | 63      | Hz    |                                  |
| Power Factor              |                                      |           |         |       | Conforms to EN61000-3-2 Class A  |
| Input Current - Full Load |                                      | 0.55/0.35 |         | A     | 115/230 VAC                      |
| Inrush Current            |                                      |           | 20/45   | A     | At 115/230 VAC                   |
| Earth Leakage Current     |                                      |           | 1       | mA    | At 264 VAC, 60 Hz                |
| Input Protection          | T2.0 A / 250 V internal in-line fuse |           |         |       |                                  |
| No Load Input Power       |                                      |           | 0.3     | W     |                                  |

### Output

| Characteristic            | Minimum | Typical | Maximum | Units    | Notes & Conditions  |
|---------------------------|---------|---------|---------|----------|---|
| Output Voltage - V1       | 5       |         | 24      | VDC      | See Models and Ratings table  |
| Initial Set Accuracy      | 0       |         | +1      | %        | At 100% load  |
| Output Voltage Adjustment |         |         |         | %        | See Models and Ratings table  |
| Minimum Load              | 0       |         |         | A        | No minimum load required  |
| Start Up Delay            |         |         | 1       | s        |   |
| Start Up Rise Time        |         |         | 150     | ms       |   |
| Hold Up Time              |         | 20/50   |         | ms       | At full load and 115 VAC/230 VAC  |
| Line Regulation           |         |         | ±1      | %        |   |
| Load Regulation           |         |         | ±1      | %        |   |
| Transient Response - V1   |         |         | 4       | %        | Recovery within 1% in less than 2 ms for a 50% step load change at 0.2 A/μs |
| Ripple & Noise            |         |         | 100     | mV pk-pk | 110 mV pk-pk 85 VAC input   |
| Overvoltage Protection    | 6.5     |         | 8.5     | V        | 5 V model   |
|                           | 16.2    |         | 18      |          | 12 V model  |
|                           | 28.8    |         | 32.4    |          | 24 V model  |
| Overload Protection       | 140     |         |         | %        |   |
| Short Circuit Protection  |         |         |         |          | Trip and Restart (Hiccup Mode)  |
| Temperature Coefficient   |         |         | 0.03    | %/°C     |   |

### General

| Characteristic  | Minimum                          | Typical     | Maximum | Units  | Notes & Conditions            |
|---|----------------------------------|-------------|---------|--------|-------------------------------|
| Efficiency  |                                  | 85          |         | %      | See Models & Ratings table    |
| Isolation: Input to Output<br>Input to Ground<br>Output to Ground | 3000                             |             |         | VAC    |                               |
|   | 1500                             |             |         | VAC    |                               |
|   | 500                              |             |         | VAC    |                               |
| Switching Frequency   |                                  | 65          |         | kHz    |                               |
| Output LED  | Green LED to indicate output on. |             |         |        |                               |
| Mean Time Between Failure   | 700                              |             |         | kHrs   | BELLCORE issue 6 at 40 °C, GB |
| Weight  |                                  | 0.2 (140.0) |         | lb (g) |                               |

### Environmental

| Characteristic        | Minimum | Typical | Maximum | Units | Notes & Conditions  |
|-----------------------|---------|---------|---------|-------|---|
| Operating Temperature | -25     |         | +70     | °C    | See thermal derating curve  |
| Storage Temperature   | -40     |         | +85     | °C    |   |
| Cooling               |         |         |         |       | Natural convection  |
| Operating Humidity    | 20      |         | 95      | %RH   | Non-condensing  |
| Operating Altitude    |         |         | 5000    | m     |   |
| Shock                 |         |         |         |       | IEC68-2-27, 15 g, 11 ms half sine, 3 times in each of 6 axes        |
| Vibration             |         |         |         |       | IEC68-2-6, 10-500 Hz, 2 g 10 mins/sweep. 60 mins for each of 3 axes |

### EMC: Emissions

| Phenomenon           | Standard    | Test Level | Criteria | Notes & Conditions |
|----------------------|-------------|------------|----------|--------------------|
| Conducted            | EN55032     | Class B    |          |                    |
| Radiated             | EN55032     | Class B    |          |                    |
| Harmonic Current     | EN61000-3-2 | Class A    |          |                    |
| Voltage Fluctuations | EN61000-3-3 |            |          |                    |

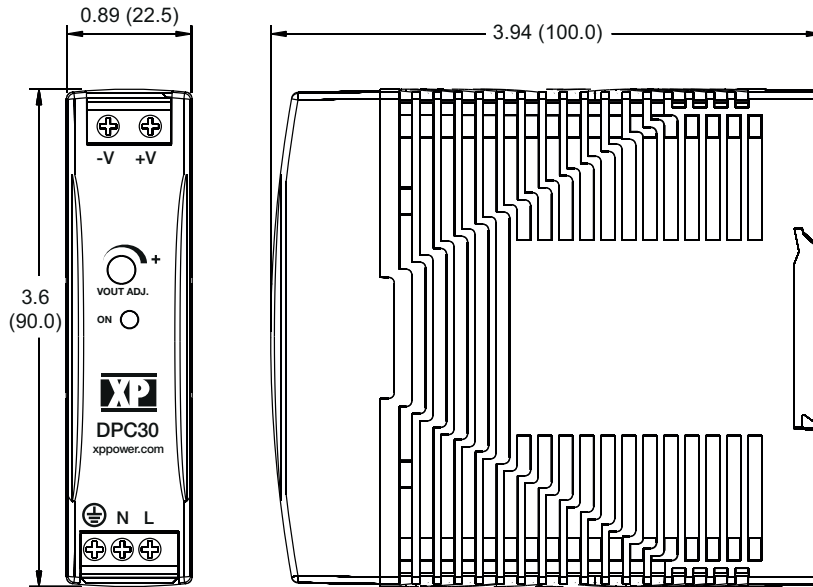
### EMC: Immunity

| Phenomenon             | Standard    | Test Level           | Criteria | Notes & Conditions |
|------------------------|-------------|----------------------|----------|--------------------|
| ESD Immunity           | EN61000-4-2 | 8 kV                 | A        | Contact            |
|                        |             | 15 kV                |          | Air Discharge      |
| Radiated Immunity      | EN61000-4-3 | 10 V/m               | A        |                    |
| EFT/Burst              | EN61000-4-4 | 4                    | A        |                    |
| Surges                 | EN61000-4-5 | Installation class 4 | A        |                    |
| Conducted              | EN61000-4-6 | 10 V                 | A        |                    |
| Magnetic Fields        | EN61000-4-8 | 4                    | A        |                    |
| Dips and Interruptions | EN55024     | Dip: 100%, 10 ms     | A        |                    |
|                        |             | Dip: 30%, 10 ms      | A        |                    |
|                        |             | Dip: 60%, 100 ms     | A/B      | High Line/Low Line |
|                        |             | Int: 100%, 5000 ms   | B        |                    |

### Safety Approvals

| Safety Agency | Safety Standard | Notes & Conditions           |
|---------------|-----------------|------------------------------|
| UL            | UL508           | Industrial Control Equipment |
| cTUVus        | UL60950-1       | Information Technology       |
| TUV           | EN60950-1 A12   | Information Technology       |

### Mechanical Details



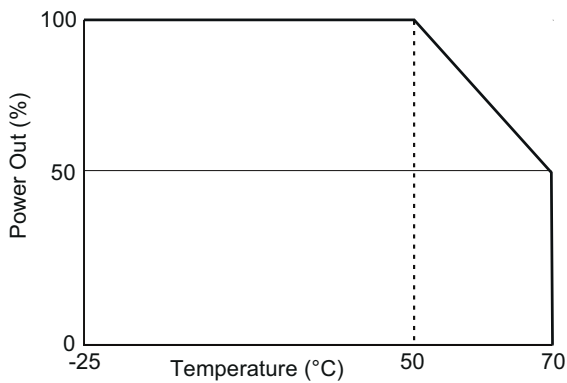
### Notes

1. All dimensions in inches (mm)
2. Weight: 0.2 lbs (140 g)
3. Tolerance:  $\pm 0.02$  in ( $\pm 0.5$  mm)
4. Screw terminal: 10-24 AWG cables size.
5. Connection screw maximum torque: 5.0lbs-in (0.56Nm).

### Application Notes

#### Derating Curves

##### Ambient Temperature



##### Input Voltage

