

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)

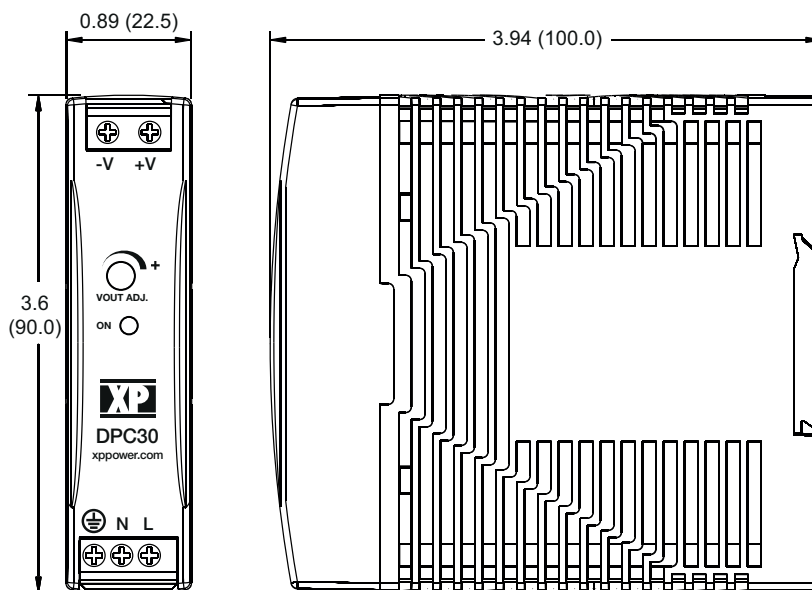
Models & Ratings

| Output Voltage | Output Power | Output Voltage Trim ⁽²⁾ | Output Current | Typical Efficiency ⁽¹⁾ | 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 | Measured at 20 MHz bandwidth and >90 VAC input. 110 mV pk-pk at 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 Input to Ground 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 | | | |

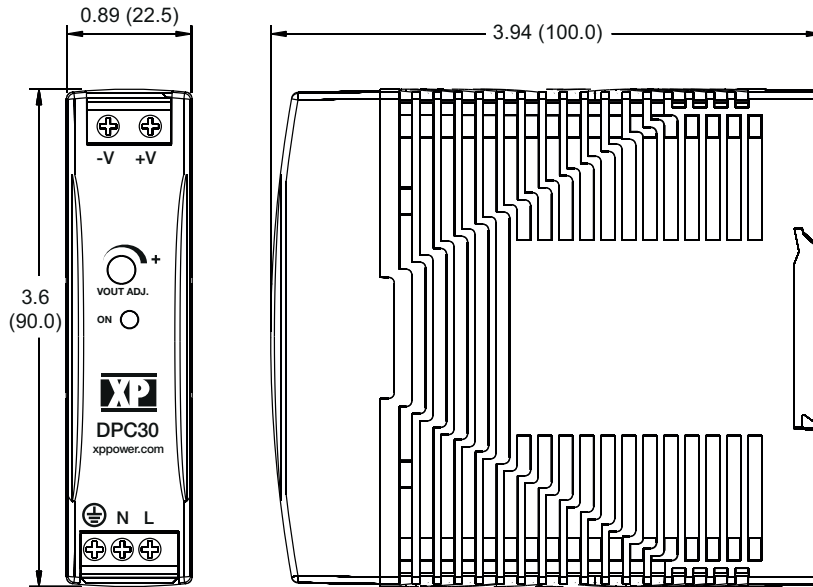
EMC: Immunity

| 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



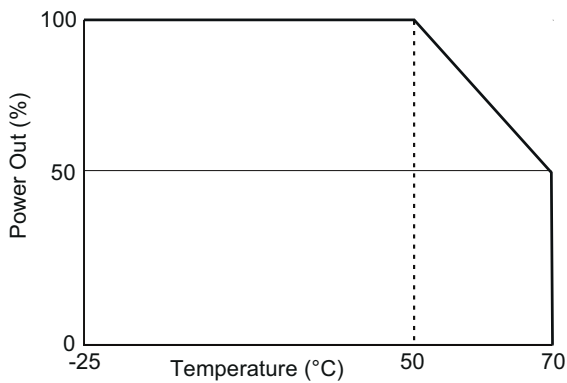
Notes

1. All dimensions in inches (mm)
2. Weight: 0.2 lbs (140 g)
3. Tolerance: ± 0.02 in (± 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

