

70 Watts

- Ultra Slim Design
- Ambient Operation from -25 °C to +70 °C
- High Efficiency
- Wide Output Adjustment Range
- 12 V to 48 V Nominal Outputs
- <0.5 W No Load Input Power
- 3 Year Warranty



Dimensions:

DPC70:
3.6 x 1.59 x 3.94" (90.0 x 40.5 x 100.0 mm)

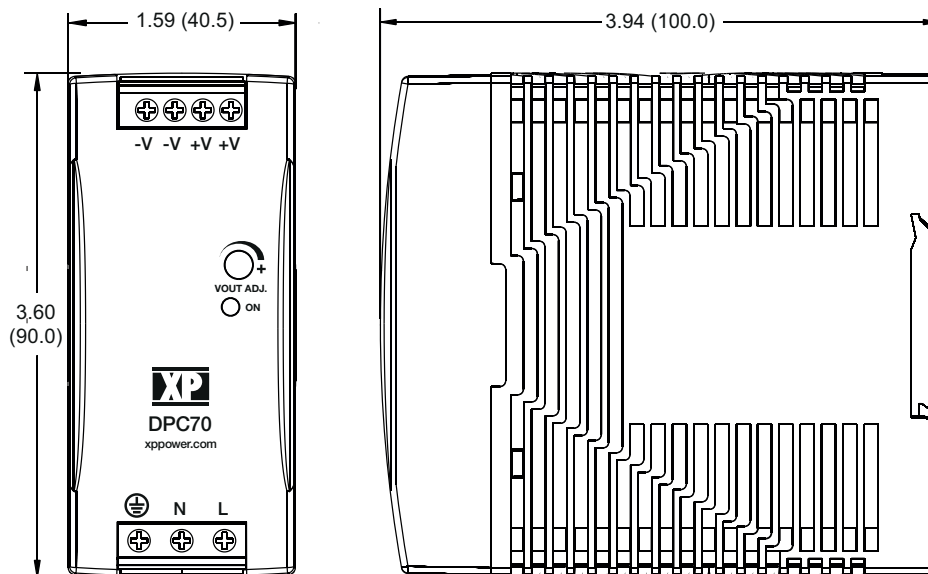
Models & Ratings

| Output Voltage | Output Power | Output Voltage Trim ⁽²⁾ | Output Current | Typical Efficiency ⁽¹⁾ | Model Number |
|----------------|--------------|------------------------------------|----------------|-----------------------------------|--------------|
| 12 V | 66 W | 11.4-15.6 V | 5.5 A | 88% | DPC70US12 |
| 24 V | 72 W | 22.5-28.5 V | 3.0 A | 89% | DPC70US24 |
| 48 V | 72 W | 47.0-52.8 V | 1.5 A | 89% | DPC70US48 |

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



Notes

1. All dimensions in inches (mm)
2. Weight: 0.51 lbs (230 g)
3. Tolerance: ±0.02 in (±0.5 mm)
4. Screw terminal: 12-26 AWG cables size.
5. Connection screw maximum torque: 5.0 lbs-in (0.56 Nm)

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 | | 1.45/0.8 | | A | 115/230 VAC |
| Inrush Current | | | 30/60 | A | At 115/230 VAC |
| Earth Leakage Current | | | 1 | mA | At 264 VAC, 60 Hz |
| Input Protection | T3.15 A / 250 V internal in-line fuse | | | | |
| No Load Input Power | | | 0.5 | W | |

Output

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|---------------------------|---------|---------|-----------|----------|---|
| Output Voltage - V1 | 12 | | 48 | VDC | See Models and Ratings table |
| Initial Set Accuracy | 0 | | +1 | % | At 100% load |
| Output Voltage Adjustment | | | | % | See Models and Ratings table, output power rating must not be exceeded |
| Minimum Load | 0 | | | A | No minimum load required |
| Capacitive Load | | | 3500/1000 | µF | 12 V & 24 V Output/48 V Output |
| Start Up Delay | | | 2.5 | s | |
| Start Up Rise Time | | | 150 | ms | |
| Hold Up Time | 15/50 | | | 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 |
| Overvoltage Protection | 16.2 | | 18.0 | V | 12 V model |
| | 28.8 | | 32.4 | | 24 V model |
| | 57.6 | | 62.4 | | 48 V model |
| Overload Protection | 150 | | | % | |
| Short Circuit Protection | | | | | Trip and Restart (Hiccup Mode) |
| Temperature Coefficient | | | 0.03 | %/°C | |

General

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|---|----------------------------------|--------------|---------|--------|-------------------------------|
| Efficiency | | 87 | | % | See Models & Ratings table |
| Isolation: Input to Output Input to Ground Output to Ground | 3000 | | | VAC | |
| | 1500 | | | VAC | |
| | 500 | | | VAC | |
| Switching Frequency | 40 | | 100 | kHz | |
| Output LED | Green LED to indicate output on. | | | | |
| Mean Time Between Failure | 550 | | | kHrs | BELLCORE issue 6 at 40 °C, GB |
| Weight | | 0.51 (230.0) | | 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 | | | |

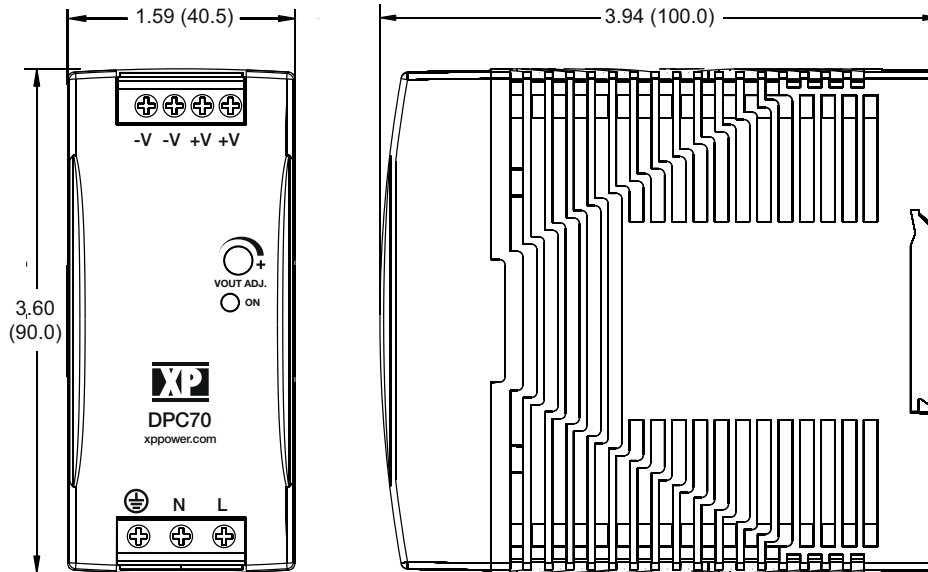
EMC: Immunity

| 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 | Information Technology |

Mechanical Details



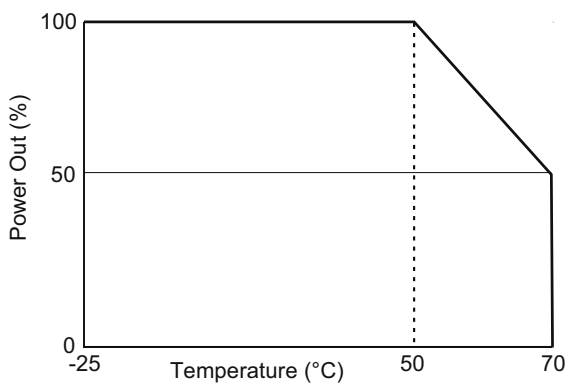
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Application Notes

Derating Curves

Ambient Temperature



Input Voltage

