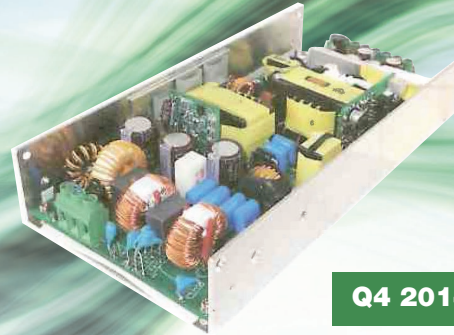


DP400 Series | ITE & Medical Safety

400W/800W Peak

- Only 1.5 inch height
- No load input power < 0.5W
- Average efficiency > 89%
- Operation from -40°C to 70°C by convection
- Eco-friendly design
- 2X MOPP approved per IEC/EN 60601-1, 3rd edition



Q4 2014

GREEN POWER

Description

The **DP400 Series** is a low-profile, 400W, U-frame power supply. Size: 4.56" x 9.0" x 1.5". Safety approved for ITE and Medical (MOOP and 2X MOPP) applications. Expanded temperature range: -40°C to 70°C. Built-in +5V standby power module and remote control functions optional. Eco-friendly design delivers 800W of peak-power. Ideal for in-rush currents found in various ITE and Medical equipment applications.

Specifications

- | | |
|---|--|
| Input voltage | • 90 VAC to 264 VAC |
| Input frequency | • 47 Hz to 63 Hz |
| Power factor | • > 0.93 |
| Inrush current | • < 30/60A at 115/230VAC |
| Efficiency | • 89%~93% depends on models |
| Hold up time | • > 20 ms at rated load and 115VAC |
| Overload/Short circuit protection | • auto recovery |
| Over voltage protection | • latch off |
| Energy saving | • Meets Energy Star ver. 2.0 level V |
| Operating temperature (open frame type) | • -40°C to 70°C derating: 2.5% / °C > 50°C |

- | | |
|-------------------------------|--|
| Cooling | • 400W free air convection
500W 18CFM forced air |
| Storage temperature | • -20°C to +85°C |
| EMI | • EN 55022 B, EN 61000-3-3 |
| Harmonics | • EN 61000-3-2 class D |
| EMS | • EN 61000-4-2, -3, -4, -5, -6, -8, -11 |
| Safety | • UL 60950-1 : (cULus)
EN 60950-1 : 2006 +A11 (TUV)
ANSI/AAMI EN 60601-1 : 2005 (cULus)
EN 60601-1, 3rd edition (TUV) |
| Energy Saving (for -S suffix) | • ENERGY STAR
For computers version 6.0
For displays version 6.0
ErP regulation EC(No) 1275/2008 |

Mechanical Specifications

Notes

1. Dimensions shown in mm. Tolerance: ±1mm (Excluding cables).
2. Size: 115.7 x 228.6 x 42 (mm)
4.5 x 9 x 1.65 (inch)
Net weight: TBD g approx. / unit
3. Connectors:

IN

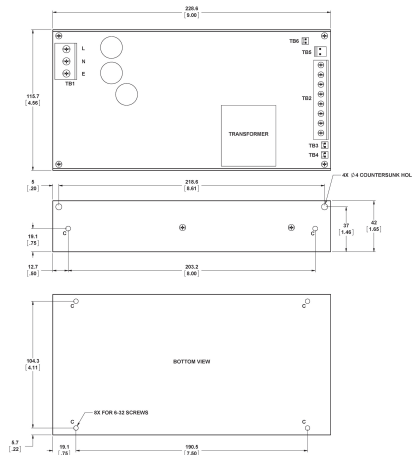


Terminal Blocks

OUT



Terminal Blocks



DP400 Series | ITE & Medical Safety

Output Specifications

Model No.	Output Rail	Load				Initial Accuracy	Step Efficiency			Avg. Eff.
		Min	Rated	Max	Peak		@20% Load	@50% Load	@100% Load	
DP400-7 DP400-7S	+12V	0A	33.3A	40A	66.6A	+11.9V~+12.1V	85%	90%	90%	88%
DP400-3 DP400-3S	+18V	0A	22.2A	26A	44.4A	+17.9V~+18.1V	85%	90%	90%	88%
DP400-9 DP400-9S	+24V	0A	16.7A	20A	33.3A	+23.9V~+24.1V	85%	90%	90%	88%
DP400-14 DP400-14S	+48V	0A	8.3A	10.4A	16.7A	+47.8V~+48.2V	85%	90%	90%	88%

Notes

- Output Load:**
Rated 400W for convection cooling; max. 500W for forced air cooling.
- Peak Load Duration:**
800W peak rating for durations up to 5 secs. Ideal for motor-starting/in-rush conditions.
- Engineering Specification:**
Contact Tri-Mag for full engineering specification for the specific part number used in your design application.
- Standby Power Consumption with System:**
This is required by ENERGY STAR in U.S. and ErP regulation in Europe for appliances such as computers and displays. The latest requirement is measured input power to be less than 0.5W with system.
- Audible Noise:**
For the DP400-x energy saving series, achieving level VI (<0.3W) standby power consumption is accomplished through burst mode operation of the controller. The burst operation frequency is dependent on load conditions and is approx. 114Hz, within the audible frequency range.
- Step Efficiency and Average Efficiency:**
Test conditions in step efficiency are referred to 3.2.2 IPS (Internal Power Supply) of ENERGY STAR program requirements for computers. ENERGY STAR required for efficiency @ 20%, 50%, 100% load is 82%, 85%, 82%; average efficiency is the average of step efficiency.
- Model Ordering Table:**

Safety/Application	w/o Audible Noise	Energy Saving
ITE & Medical	DP400-x	DP400-xS