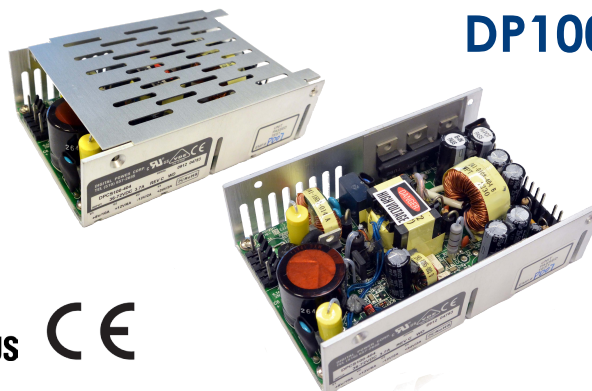


Product Specification

DC/DC Converters

Key Product Features

- Fully isolated input
- Up to 4 outputs
- 75% efficiency
- Input EMI filter
- 5" x 3.3" x 1.5" size
- UL, cUL and CE approved
- Optional cover
- Available with 90-264VAC universal input



DP100 Series

100 Watt



Description

The DP100 series are open frame DC/DC converters ideal for systems powered from a 24VDC or 48VDC source. These converters deliver up to 100W of continuous or 120W peak power from one to four outputs.

The DP100 is one of the *flexibility* series. In addition to the popular models listed on this sheet, thousands of potential other modified standard models are available that include full safety agency approval and do not require any non-recurring engineering (NRE) charge. Prototype delivery is typically just a few weeks.

Flexibility options include a cover. Output voltage options are given in the table below. Fully custom models are also available. Please contact the factory for details.

All DP100 models are also available with 90-264VAC universal input. Please see the US100 data sheet for details.

Model Options

Model Number ¹	Output	Output Voltage	Min ²	Output Current Ratings		
				Max ³	Max ⁴	Peak ⁵
DP100-105	V1	+5V	0A	10.0A	15.0A	20.0A
DP100-112	V1	+12V	0A	6.5A	8.0A	10.0A
DP100-124	V1	+24V	0A	3.0A	4.0A	4.5A
DP100-201	V1	+5V	0.5A	8.0A	10.0A	16.0A
	V2	+12V	0A	4.0A	6.0A	7.0A
DP100-301	V1	+5V	0.5A	8.0A	10.0A	12.0A
	V2	+12V	0A	4.0A	6.0A	7.0A
	V3	-12V	0A	1.0A	2.0A	2.5A
DP100-303	V1	+5V	0.5A	8.0A	10.0A	12.0A
	V2	+15V	0A	4.0A	6.0A	7.0A
	V3	-15V	0A	1.0A	1.0A	2.5A
DP100-401	V1	+5V	0.5A	8.0A	10.0A	12.0A
	V2	+12V	0A	4.0A	6.0A	7.0A
	V3	-12V	0A	1.0A	2.0A	2.5A
	V4	-5V	0A	1.0A	2.0A	2.5A
Modified standard	V1	±3.3V to ±48V ⁷	0.5A		15.0A	
<i>flexibility</i> output options ⁶	V2	±2.0V to ±48V ⁸	0A		6.0A	
	V3	±2.0V to ±48V ⁸	0A		2.0A	
	V4	±2.0V to ±48V ⁸	0A		1.0A	

1- DP100-XXX = 48VDC input. DM100-XXX = 24VDC input.

2- At least 20% of max output current is required to maintain stated regulation

3- Convection cooling. DM ratings slightly lower. Contact the factory

4- Forced air cooling. DM ratings slightly lower. Contact the factory

5- Peak output, 30 sec max

6- The DP100 series allows very fast flexible modified standard designs within these parameters without non-recurring engineering charge and while retaining safety agency approval. Please contact the factory for details

7- Can be specified in 0.1V increments

8- Can be specified in 0.75V increments

Note: Specifications are typical at 25°C unless otherwise stated

Specifications	
Input	
Input Voltage Range	20-36VDC (24V nominal - DM series) ; 36-72VDC (48V nominal - DP series)
Input Surge Current	25A max, cold start
Efficiency	75% typ at nominal line, full power
Output	
Output Power	100W, 28CFM forced air ; 120W peak
Line Regulation	$\pm 0.2\%$, V_{in} (min) to V_{in} (max)
Load Regulation	$\pm 3\%$ (V_1 , 20% to 100% I_0) ; $\pm 5\%$ (V_2 - V_4 , 20% to 100% I_0)
Cross Regulation	$\pm 0.5\%$ (V_1 , 20% to 100% I_0 on V_2 - V_4) ; $\pm 5\%$ (V_2 - V_4 , 50% to 100% I_0 on V_1)
Noise and Ripple	25mV max RMS, 100mV max P-P on V_1 with full load. 95-264VAC ; 0.5% max RMS, 1% max P-P on V_2 - V_4 with full load. 95-264VAC
Overshoot	5% max, all outputs
Transient Response	for 25% to 75% I_0 change, 5% max deviation, with recovery to 1% within 500 μ S
Hold-Up Time	6mS, 115VAC input, full output power
Overvoltage Protection Threshold	30% V_o , all outputs
Power Foldback Point	120% of max rated power

Environment	
Operating Temperature Range (full power)	0°C to 50°C
Operating Temperature Range (extended range)	0°C to 70°C Derate linearly from full power at 50°C to half power at 70°C
Storage Temperature Range	-25°C to +85°C
Relative Humidity	5% to 95%, non-condensing
Vibration	0.75G peak, 5Hz to 500 Hz. Test three orthogonal axes at 1 octave/min, 5 min dwell at four major resonances

Mechanical Drawing

