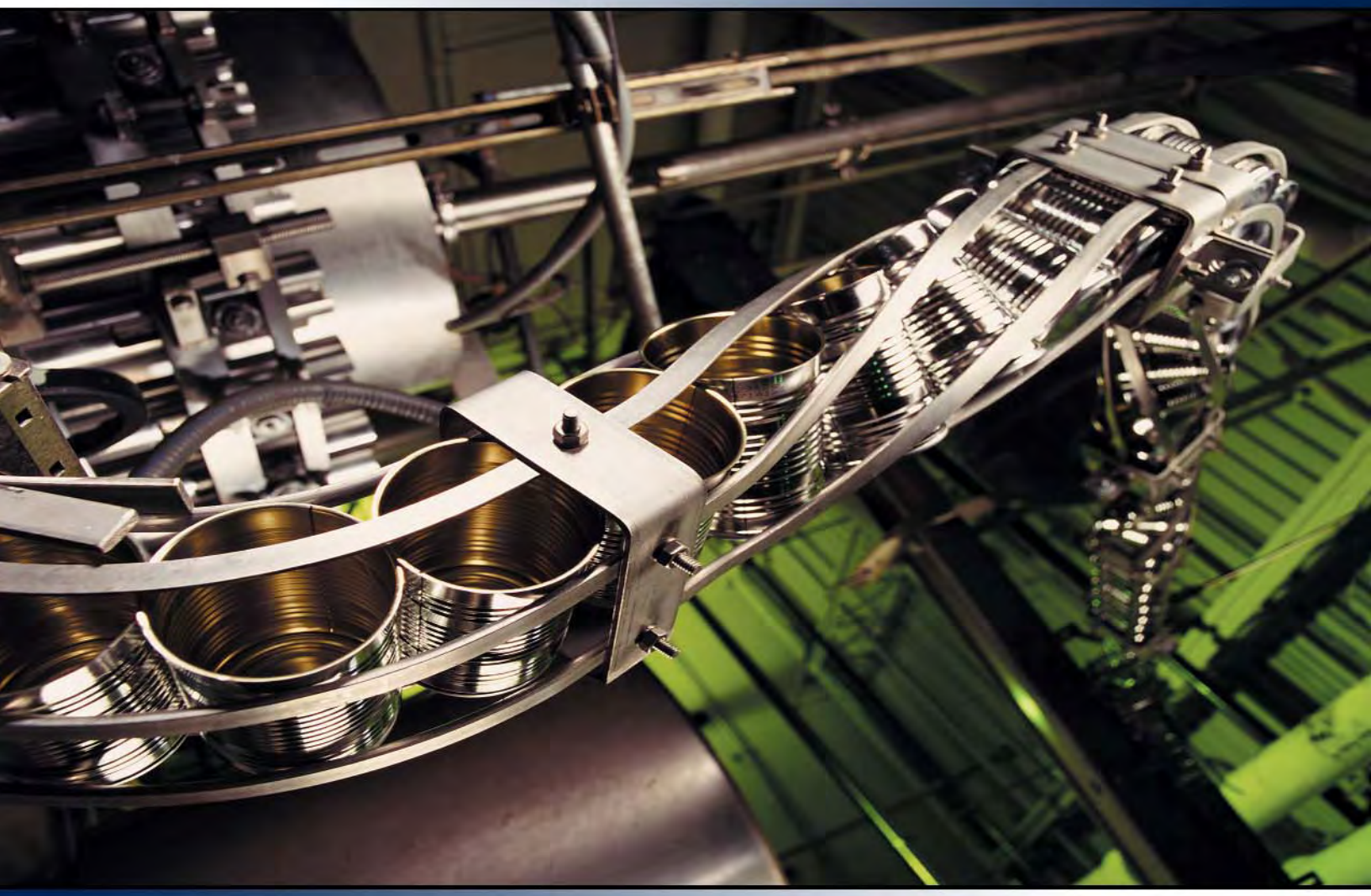
DIN RAIL POWER PRODUCTS



Solutions for factory automation

LAMBDA

About Lambda

Lambda is a world class leader in the design, manufacture and marketing of power supplies to the Industrial, Telecom, Datacom, Medical and Test and Measurement sectors. Founded in 1948 we have developed a worldwide reputation and heritage for high quality, robust power supplies.

One thing has remained consistent over the last half century though, the need for change.

- As our Customer's product requirements become more diverse, we responded by broadening our product range from low cost 5W open frame **AC-DC** power supplies to 7,500W hot swap units.
- We developed a large **DC-DC converter** portfolio to power many applications in the recent growth of communications, and we continue to launch leading edge products to support that market.
- The need for fast customization has been met by our **New York Custom Product Solutions** Engineering Team. A wide variety of products can be developed, ranging from simple modifications, value added solutions, or complete 'ground up' custom products.

- Not all of our Customer needs are product based though. **Financial stability** and the resources to continue to invest even in down markets, play a key factor in partner selection. Backed by the resources of a multi billion dollar company, we have increased our R&D and capital expenditures to offer our customers the latest in leading edge technologies.
- The end products that use Lambda power supplies are often designed on one continent and built in another. We can truly provide that **global support** with nine manufacturing sites, eight R&D facilities, sales and service offices across the world, and our authorized distribution network.
- The desire for **information** - 24/7. Our web site has a huge library of data, from legacy products that were designed decades ago to the latest generation products.
- As we launch new products, our printed catalog quickly becomes outdated. We encourage you to **check** for updates through our website www.lambdapower.com

Contents

Power Supplies Series	Input	Output Power (W) 10	15	30	50-75	100	120	180	240	480
DPP15-100	Single Phase									
DPP120-240	Single Phase									
DPP480	Single or 3 Phase									
DSP	Single Phase									
DLP	Single Phase									

Accessories

DLP-PU Redundancy module - 20A total output

DPP Series

DSP Series

DLP Series

DLP-PU Series

Easy Mounting

DPP15 - 100 Series

15W to 100W DIN Rail Mount Power Supplies

- Universal Input 85 - 264VAC
- 5V to 48V outputs
- -10 to +71°C operation (derating applies)
- Class I (insulated case)
- UL60950-1, UL508, UL1310, ISA12.12 - Class I, Div II (select models, see datasheet)
- Parallel capable (DPP100 only, droop mode)

Model	Output Voltage	Adjust Range	Maximum Current	Power	Height	Width	Depth
DPP25-5	5V	5 - 6V	5A	25W	2.95"	1.77"	3.58"
DPP30-12	12V	9.9 - 12.1V	2.5A	30W	2.95"	1.77"	3.58"
DPP50-15	15V	11.9 - 15.1V	3.4A	50W	2.95"	1.77"	3.58"
DPP15-24	24V	22.5 - 28.5V	0.63A	15W	2.95"	0.9"	3.81"
DPP30-24	24V	22.5 - 28.5V	1.3A	30W	2.95"	1.77"	3.58"
DPP50-24	24V	22.5 - 28.5V	2.1A	50W	2.95"	1.77"	3.58"
DPP100-24	24V	22.5 - 28.5V	4.2A	100W	2.95"	2.86"	3.81"
DPP50-48	48V	48 - 56V	1.05A	50W	2.95"	1.77"	3.58"

See website datasheet for complete and latest product details. www.lambdapower.com/products/dpp-series.htm

DPP120 - 240 Series

120W and 240W DIN Rail Mount Power Supplies

- Auto Select Input 90-132 / 180-264VAC
- 12V to 48V outputs
- -25 to +71°C operation (derating applies)
- Class I (metal case)
- UL60950-1, UL508
- Parallel capable (droop mode)

Model	Output Voltage	Adjust Range	Maximum Current	Power	Height	Width	Depth
DPP120-12-1	12V	11.4 - 14.5V	10A	120W	4.92"	2.5"	4.59"
DPP120-24-1	24V	22.5 - 28.5V	5A	120W	4.92"	2.5"	4.59"
DPP120-48-1	48V	45 - 55V	2.5A	120W	4.92"	2.5"	4.59"
DPP240-24-1	24V	22.5 - 28.5V	10A	240W	4.92"	3.27"	4.57"
DPP240-48-1	48V	45 - 55V	5A	240W	4.92"	3.27"	4.57"

See website datasheet for complete and latest product details. www.lambdapower.com/products/dpp-series.htm

DPP480 Series

480W DIN Rail Mount Power Supplies

- Universal Input 90 - 264VAC single phase or 340 - 575VAC 3 phase
- 24V & 48V outputs
- -25 to +71°C operation (derating applies)
- Class I (metal case)
- UL60950-1, UL508
- Parallel capable (droop mode)
- DC Good relay signal

Model	Input Voltage	Output Voltage	Adjust Range	Maximum Current	Power	Height	Width	Depth
DPP480-24-1	90 - 264VAC 1ph	24V	22.5 - 28.5V	20A	480W	4.92"	6.89"	4.6"
DPP480-48-1	90 - 264VAC 1ph	48V	47 - 56V	10A	480W	4.92"	6.89"	4.6"
DPP480-24-3*	340 - 575VAC 3ph	24V	22.5 - 28.5V	20A	480W	4.87"	5.91"	4.38"
DPP480-48-3*	340 - 575VAC 3ph	48V	47 - 56V	10A	480W	4.87"	5.91"	4.38"

* Coming soon Summer 2008

See website datasheet for complete and latest product details. www.lambdapower.com/products/dpp-series.htm

Droop Mode Current Share

If two power supplies are to be connected together to produce more power or share the load, then a parallel capable model should be selected. Lambda's DPP100, 120, 240 and 480 models are all parallel capable.

On the front of each power supply is a small black switch. For parallel operation this switch should be set to "parallel" (Fig. 1).

Fig. 1

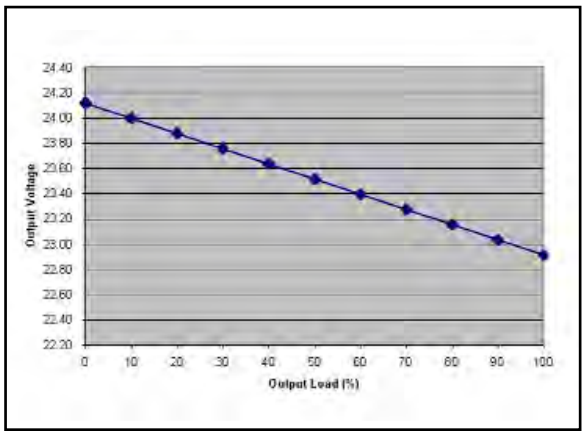


Fig. 2

In single mode the load regulation (the amount the output voltages changes with load) is minimal, the difference being less than 0.24V from zero load to full load for a 24V output power supply.

In parallel mode that load regulation is artificially increased to 1.2V using internal circuitry (Fig. 2).

The extra voltage drop or "droop" is proportional to the load drawn, so that when two or more power supplies are connected in parallel the output load is shared between the power supplies. If one of the paralleled power supplies tries to provide more current, its output will droop slightly and the other supplies will balance.

For optimal performance, all power supplies should have their outputs set to the same voltage.

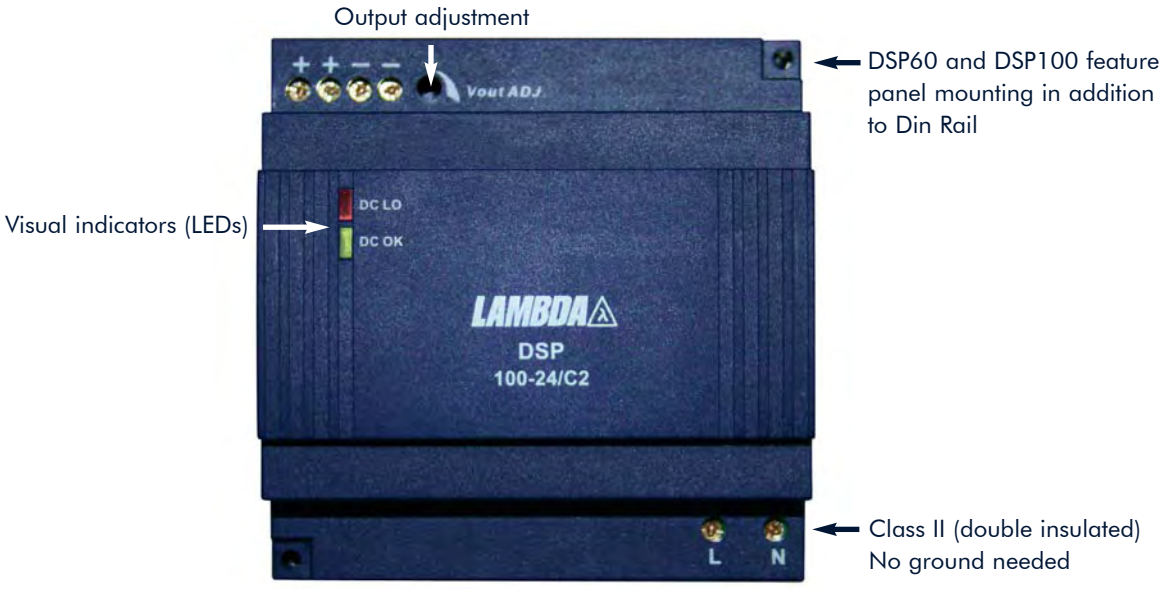
DSP Series

7.5W to 100W DIN Rail Mount Power Supplies

- Universal Input 90 - 264VAC
- 5V to 24V outputs
- -25 to +71°C operation (derating applies)
- Class II, no ground required (insulated case)
- UL60950-1, UL508, UL1310 (select models, see datasheet)

Model	Output Voltage	Adjust Range	Maximum Current	Power	UL1310 Class 2	Height	Width	Depth
DSP10-5	5V	None	1.5A	7.5W	Yes	3.58"	0.71"	2.19"
DSP30-5	5V	5 - 5.5V	3A	15W	Yes	3.58"	2.09"	2.19"
DSP60-5	5V	5 - 5.5V	7A	35W	-	3.58"	2.8"	2.19"
DSP10-12	12V	None	0.83A	10W	Yes	3.58"	0.71"	2.19"
DSP30-12	12V	12 - 14V	2.1A	25.2W	Yes	3.58"	2.09"	2.19"
DSP60-12	12V	12 - 14V	4.5A	54W	Yes	3.58"	2.8"	2.19"
DSP100-12	12V	12 - 14V	6A	72W	-	3.58"	3.54"	2.19"
DSP10-15	15V	None	0.67A	10.1W	Yes	3.58"	0.71"	2.19"
DSP30-15	15V	13.5 - 16.5V	2A	30W	Yes	3.58"	2.09"	2.19"
DSP60-15	15V	13.5 - 16.5V	4A	60W	Yes	3.58"	2.8"	2.19"
DSP100-15	15V	13.5 - 16.5V	5A	75W	-	3.58"	3.54"	2.19"
DSP10-24	24V	None	0.42A	10.1W	Yes	3.58"	0.71"	2.19"
DSP30-24	24V	24 - 28V	1.3A	31.2W	Yes	3.58"	2.09"	2.19"
DSP60-24	24V	24 - 28V	2.5A	60W	Yes	3.58"	2.8"	2.19"
DSP100-24/C2	24V	20 - 24.2V	3.8A	91.2W	Yes	3.58"	3.54"	2.19"
DSP100-24	24V	24-28V	4.2A	100.8W	-	3.58"	3.54"	2.19"

See website datasheet for complete and latest product details. www.lambdapower.com/products/dsp-series.htm



DLP Series

75W to 240W DIN Rail Mount Power Supplies

- Universal Input 85-132 / 170-265VAC or 85 - 265VAC (180 & 240W)
- 24V output
- -25 to +71°C operation (derating applies)
- Class I (metal case)
- UL60950-1, UL508, UL1310 (select models, see below)

Model	Output Voltage	Adjust Range	Maximum Current	Power	UL1310 Class 2	Height	Width	Depth
DLP75-24-1/C2EJ	24V	Fixed	2.5A	60W	Yes	3.82"	1.97"	4.33"
DLP75-24-1/E	24V	21.6 - 28V	3.1A	75W	-	3.82"	1.97"	4.33"
DLP100-24-1/C2EJ	24V	Fixed	3.7A	88.8W	Yes	3.82"	2.36"	4.33"
DLP100-24-1/E	24V	21.6 - 28V	4.1A	98.4W	-	3.82"	2.36"	4.33"
DLP120-24-1/E	24V	21.6 - 28V	5A	120W	-	3.82"	2.36"	4.33"
DLP180-24-1/E	24V	21.6 - 28V	7.5A	180W	-	3.82"	3.15"	4.33"
DLP240-24-1/E	24V	21.6 - 28V	10A	240W	-	3.82"	4.72"	4.33"

See website datasheet for complete and latest product details. www.lambdapower.com/products/dlp-series.htm

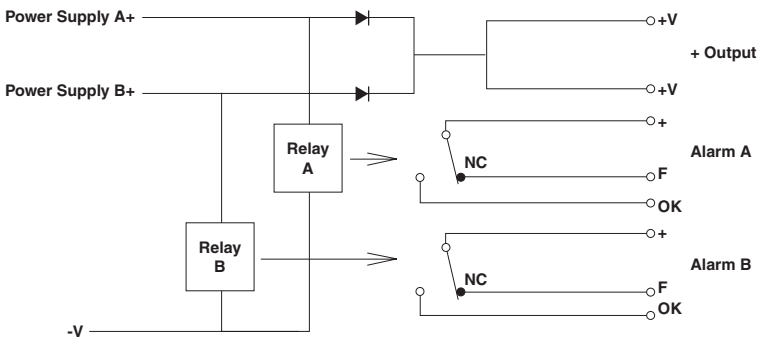
DLP/PU Series

Parallel or Redundancy Module for Two Supplies

- Input Voltage Range: 21 - 28VDC
- 20A per input, 20A total
- -10 to +71°C operation (derating applies)
- Internal ORing diodes
- Relay Alarm Contacts

Lambda's DIN rail mountable DLP-PU unit is ideal for simple, redundant power systems. Using this module two power supplies can be connected in a parallel redundant combination to help protect a system from downtime due to a power supply failure.

Block Diagram



LAMBDA Selector Guide

AC Input?

Modular? *

- **Vega** 450-900W, 1-10 Outputs (48VDC I/P Option)
- **Alpha** 1kW-1.5kW, 1-16 Outputs
- **NV** 350-960W, 1-8 Outputs

DIN Rail Mount?

- **DLP Series** 75 to 480W, 115/230VAC, 24V Output
- **DSP/DPP Series** 10 to 480W, 115/230VAC, 5 to 48V Output

Hotswap Front End?

- **TL Series** 500-2500W, 12-48V Output
- **FPS Series** 1000W, 12-48V Output
- **TX Series** 2.5kW to 7.5kW, 24V, 48V Output
- **TH Series** 1.2kW to 2.5kW, 12-48V Output

Linear?

- **H Series** 15 to 115W, 115/230VAC, 5 to 24V Output

PCB Style?

- **PFE Series** 300-700W Power Module, 12 to 48V Output
- **VSB,C,P Series** 5-150W, 115VAC, 3.3 to 48V Output
- **ZW** 5 to 300W, 115/230VAC, 1-4 Outputs
- **NV175/300** 175-300W, 1-5 Outputs
- **ZP/SC Series** 20 to 120W, 1-3 Outputs

Enclosed?

High Grade Industrial, 5 year Warranty

- **HWS Series** 15 to 1500W, 115/230VAC, 3.3-60V Output
- **JWS Series** 50 to 600W, 115/230VAC, 2-48V Output
- **LZSa Series** 500 to 1500W, 115/230VAC, 12 to 24V Output
- **HWS1800T Series** 1500 to 1800W, 3-Phase 170-265VAC, 12 to 60V Output

Light Industrial, 1-3 year Warranty

- **HKA Series** 10 to 150W, 115VAC, 5 to 24V Output
- **SWS Series** 50 to 1000W, 115/230VAC, 3 to 60V Output
- **LW Series** 15 to 50W, 115/230VAC, 2-3 Outputs
- **KPS/KM/KWS Series** 5 to 40W, 115/230VAC, 1 to 3 Outputs

Programmable?

- **ZUP Series** 200 to 800W, 115/230VAC, 0-120V adjustable

DC Input?

- **CC-E** 1.5 to 25W, 5-48VDC Input, 1or 2 Outputs
- **PX** 10 to 40W, 12,24,48VDC Input, 1-3 Outputs
- **PAE/PAQ** 1/8 or 1/4 brick, 48VDC Input, 1.2-5V Output
- **PAH Series** 1.8 to 70A, 1/2 Brick, 48VDC Input, 1.2-48V Output
- **PAF Series** 18 to 100A Full Brick, 24-280VDC Input, 3.3-28V Output

Don't forget many Lambda power supplies have a recommended EMI Filter.

Filter?

- **MX13 Series** 30 to 150A
- **MA/MX Series** 6 to 30A
- **MAW Series** 0.5 to 5A
- **MB Series** 6 to 36A
- **MXB Series** 6 to 30A

*Contact factory for assistance in configurating / see website for details.