LN/LD Series

Low noise linear power supplies

Product Data | Models | Specifications | Similar Series

Lambda's LD and LN Series linear power supplies are designed to meet the ever increasing requirements of high reliability and ease of use in today's modern equipment. They feature extremely low output ripple and noise - ideal for medical and industrial applications, and test equipment employing sensitive analog circuits.

Lambda's LD and LN Series are manufactured using only the highest grade components. Our stringent inhouse component derating ensures that the LD and LN Series provide the highest reliability for any lownoise application.





Lowest Output Ripple & Noise

High Line & Load Stability

Rugged Construction

MIL-STD-810C Specifications

High Temperature Operation

Convection Cooling

5 Year Warranty

LN/LD Series Available Models

| • | | | МАХ | CUR | | | | |
|-------------------|--------|-------|------|-------------|-------------|-------------|------------|------------|
| | Ουτρυτ | POWER | 30° | 40 ° | 50 ° | 60 ° | 71° | MODEL |
| Single Outputs | 5V | 14W | 2.7 | 2.7 | 2.4 | 2.1 | 1.5 | LNS-Z-5-OV |
| | 5V | 28W | 5.4 | 5.4 | 4.6 | 3.8 | 2.8 | LNS-Y-5-OV |
| | 5V | 45W | 8.5 | 8.5 | 7.6 | 6.2 | 4.5 | LNS-X-5-OV |
| | 5V | 63W | 11.9 | 11.9 | 10.4 | 8.5 | 6.4 | LNS-W-5-OV |
| | 5V | 110W | 20.9 | 20.9 | 18.5 | 15.7 | 12.4 | LNS-P-5 |
| | 12V | 20W | 1.55 | 1.55 | 1.45 | 1.4 | 1.2 | LNS-Z-12 |
| | 12V | 45W | 3.6 | 3.6 | 3.15 | 2.6 | 2 | LNS-Y-12 |
| | 12V | 70W | 5.5 | 5.5 | 4.7 | 3.8 | 2.8 | LNS-X-12 |
| | 12V | 91W | 7.2 | 7.2 | 6.1 | 5 | 3.6 | LNS-W-12 |
| | 12V | 167W | 13.3 | 13.3 | 11.8 | 9.5 | 6.95 | LNS-P-12 |
| | 15V | 20W | 1.3 | 1.3 | 1.2 | 1.1 | .9 | LNS-Z-15 |
| | 15V | 48W | 3.1 | 3.1 | 2.8 | 2.35 | 1.8 | LNS-Y-15 |
| | 15V | 74W | 4.7 | 4.7 | 4.1 | 3.35 | 2.4 | LNS-X-15 |
| | 15V | 103W | 6.55 | 6.55 | 5.7 | 4.7 | 3.15 | LNS-W-15 |
| | 15V | 180W | 11.4 | 11.4 | 10.1 | 8.1 | 6 | LNS-P-15 |
| | 24V | 20W | .81 | 0.81 | 0.68 | 0.55 | .36 | LNS-Z-24 |
| | 24V | 53W | 2.1 | 2.1 | 1.9 | 1.5 | 1 | LNS-Y-24 |
| | 24V | 82W | 3.25 | 3.25 | 2.75 | 2 | 1.2 | LNS-X-24 |
| | 24V | 116W | 4.6 | 4.6 | 3.9 | 3.1 | 2.1 | LNS-W-24 |
| | 24V | 217W | 8.6 | 8.6 | 7.6 | 6.4 | 4.8 | LNS-P-24 |
| | 28V | 22W | .75 | .75 | .6 | .45 | .32 | LNS-Z-28 |
| | 28V | 53W | 1.8 | 1.8 | 1.65 | 1.35 | .9 | LNS-Y-28 |
| | 28V | 85W | 2.9 | 2.9 | 2.5 | 1.5 | 1 | LNS-X-28 |
| | | | | | | | | |

Dual Outputs

| - | ±12V to ±15V | 15W | 0.5 | 0.5 | 0.4 | 0.3 | LND-Z-152 |
|-----------------------|------------------------|------------|------|-------|-------|--------|--------------|
| | ±12V to ±15V | 36W | 1.2 | 1.0 | 0.8 | 0.5 | LND-Y-152 |
| | $\pm 12V$ to $\pm 15V$ | 63W | 2.1 | 1.8 | 1.4 | 0.9 | LND-X-152 |
| | $\pm 12V$ to $\pm 15V$ | 90W | 3 | 2.8 | 2.3 | 1.8 | LND-W-152 |
| | $\pm 12V$ to $\pm 15V$ | 150W | 5 | 4.5 | 3.7 | 2.7 | LND-P-152 |
| Wide Range | 0-7V | 23.8W | 3.4 | 2.85 | 1.8 | | LDS-Y-01 |
| Adjustable Outputs | 0-7V | 28.7W | 4.1 | 3.4 | 2.6 | | LDS-X-01 |
| | 0-7V | 63W | 9 | 8 | 7.1 | | LDS-P-01 |
| | 0-18V | 32.4W | 1.8 | 1.6 | .9 | | LDS-Y-02 |
| | 0-18V | 35.1W | 1.95 | 1.6 | 1.3 | | LDS-X-02 |
| | 0-18V | 77.4W | 4.3 | 3.8 | 3.1 | | LDS-P-02 |
| | 0-32V | 35.2W | 1.1 | .95 | .6 | | LDSY-03 |
| | 0-32V | 80W | 2.5 | 2.4 | 2.2 | | LDS-P-03 |
| | | For use wi | tout | cover | incre | ease o | utput by 15% |

LN/LD Series Specifications

| AC Input | 105-127VAC, 210-254VAC (by transformer tap change), 47- 440Hz. With derating (consult factory). | | | | |
|---------------------------------|---|--|--|--|--|
| EMI | MIL-I-6181D - Conducted and radiated EMI with one output terminal grounded. | | | | |
| DC Output Controls | LD Series: volt per volt. | | | | |
| Line Regulation | LD Series: 0.005% +0.5mV. | | | | |
| Load Regulation | LD Series: 0.005% +0.5mV. | | | | |
| Ripple and Noise | LD Series: 150uV RMS, 1mV pk-pk. | | | | |
| Overshoot | No overshoot on turn-on, turn-off or power failure. | | | | |
| Overvoltage Protection | Overvoltage protection module crowbars output when trip level is exceeded - standard on all 5V models, except the LNS-P-5. | | | | |
| Overload Protection | Automatic electronic current limiting circuit limits the output current to a preset value, thereby providing protection for the load as well as the power supply. | | | | |
| Cooling | All units are convection cooled. No external heat sinking or forced air is required. | | | | |
| Operating Temperature Range | Continuous operation from 0°C to $+71$ °C on LN Series and 0°C to $+60$ °C on LD Series with suitable derating above $+40$ °C. | | | | |
| Storage Temperature | -55°C to +85°C. | | | | |
| Fungus Proofing | No fungi nutrient material used. | | | | |
| Temperature Coefficient | LD Series: 0.01% + 10uV per °C. | | | | |
| Isolation | Minimum, 10 Megohm isolation from DC to ground at 750VDC. | | | | |
| Remote Sensing | Provision is made for remote sensing to eliminate the effect of power output lead resistance on DC regulation. | | | | |
| Resistive Programming | LD Series: 1000 ohms/volt. | | | | |
| Thermal Protection | Thermostat - automatically reset when overtemperature condition is eliminated. | | | | |
| Mounting | LN/LDS-Y, X, W . three mounting surfaces, three mounting positions. | | | | |
| Input and Output Connections | Heavy-duty screw terminals on printed circuit board. | | | | |
| Safety Agency Approval | UL 1950, CSA 950. | | | | |
| Warranty | 5 years. | | | | |