Industrial Test Automation

# 10-100W Low Profile DIN Rail Mount Power Supplies

| Features | Benefits |
|---|---|
| • High Efficiency, up to 90% @ 230VAC | • Energy Saving - Improved Thermal Performance |
| • UL1310 Class 2 Compliant | • Reduced Installation Costs (NEC Class 2) |
| • Low No Load Consumption | • ErP Compliant |
| • Long E-Cap-Life (>8 years @ 40°C, 75% Load, 230VAC) | • High In-Service Lifetime |
| • Class II, Wide Range Input (85-264VAC) | • Global Application, No Earth Required |

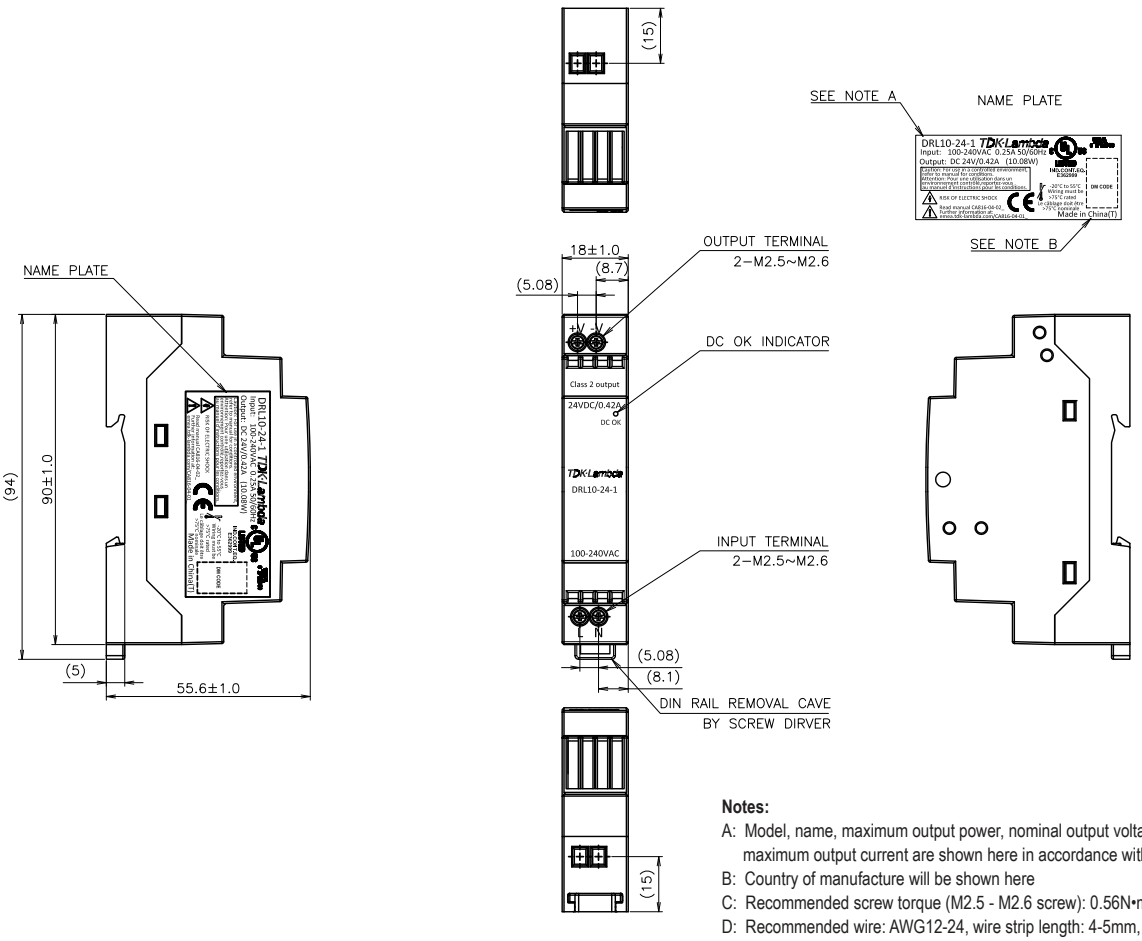
## Specification

| Model | | DRL10 | DRL30 | DRL60 | DRL100 |
|---|---|---|---|---|---|
| Input Voltage Range | V | 85 - 264VAC (Withstands 300VAC for 5 seconds) | | | |
| Input Frequency | Hz | 47 - 63Hz | | | |
| Inrush Current at 230VAC (typ) (Cold Start) | A | 40 | 50 | 60 | 60 |
| Power Factor (115/230VAC) | | Meets IEC61000-3-2 Class A | | | |
| Input Current (110/230VAC) | A | 0.56 / 0.42<br>0.18 / 0.12 | 0.58 / 0.45<br>0.6 / 0.4 | 0.5 / 0.43<br>1.2 / 0.8 | 0.5 / 0.47<br>2.0 / 1.1 |
| Line & Load Regulation | - | See model selector | | | |
| Ripple & Noise | - | See model selector | | | |
| Overcurrent Protection | - | >105% Hiccup with auto recovery | | | |
| Overvoltage Protection | - | See model selector. Cycle AC input voltage to reset | | | |
| Hold Up Time (typ) at 115VAC Input | ms | 20 | 20 | 20 | 15 |
| Efficiency | - | See model selector | | | |
| No Load Power Draw | W | <0.3 | <0.3 | <0.5 | <0.5 |
| LED Indicator | - | Green LED indicates DC is OK | | | |
| Operating Temperature (-25°C start-up) | °C | DRL10, 30, 60: -20° to +71°, derate linearly from 100% to 60% load from 55° to 71°<br>DRL100: -20° to +71°, derate linearly from 100% to 60% load from 51° to 71°<br>DRL100 (<115VAC): -20° to +71°, derate linearly from 100% to 40% load from 40° to 71° | | | |
| Storage Temperature | °C | 40° to +85° | | | |
| Operating Humidity (non condensing) | %RH | 5 - 95 | | | |
| Parallel Operation | - | Not available | | | |
| Series Opereration | - | Possible | | | |
| Cooling | - | Convection | | | |
| Operating Altitude | m | 3,000 | | | |
| Withstand Voltage (For 1 minute) | VAC | Input to Output 3kVAC | | | |
| Isolation Resistance | MΩ | >100MΩ at 25°C, 70%RH & 500VDC | | | |
| Vibration (Operating) | - | IEC 60068-2-6, Sine Wave, 10-500Hz, 19.6m/s$^2$ (2G peak)<br>10 min per cycle, 60 min for all X,Y,Z directions | | | |
| Shock | - | IEC 60068-2-27, Half Sine Wave, 39.2m/s$^2$ (4G ) for a duration of 22ms<br>3 shocks for each 3 directions, 9 times in total | | | |
| Safety Agency Certifications | - | UL508 Listed, UL60950-1, UL1310 Class 2 (LPS), NEC Class 2 (except DRL60-12 & DRL100-24), CSA22.2 No.60950-1, EN60950-1, CE Mark | | | |
| Conducted & Radiated EMI | - | EN55022-B Conducted, EN55022-A Radiated | | | |
| Immunity | - | EN61000-4-2 (lvl 3) , -3 (lvl 3), -4 (lvl 4), -5 (lvl 3), -6 (lvl 3), -8 (lvl 4), -11 (class 3) | | | |
| Line Dip (200-240VAC) | - | SEMI F47 Compliant | | | |
| Weight (Typ) | g | 65 | 120 | 200 | 280 |
| Size (WxHxD) | mm | 18 x 91 x 55.6 | 36 x 91 x 55.6 | 54 x 91 x 55.6 | 72 x 91 x 55.6 |
| Case Material | - | Flame Retardant Polycarbonate (UL94 V-0) | | | |
| Warranty | yrs | 3 | | | |

## Model Selector

| Model | Output Voltage (V) | Adjust Range (V) | Max Current (A) | Max Power (W) | Load Reg (mV) | Line Reg (mV) | Ripple & Noise (mV) | Overvoltage Protection Trigger Range (V) | Efficiency (%) (115/230VAC) |
|---|---|---|---|---|---|---|---|---|---|
| **DRL10-12-1** | 12 | - | 0.84 | 10.08 | 120 | 120 | 120 | 13.8 - 16.2 | 85 / 85 |
| **DRL30-12-1** | 12 | 12 - 15 | 2.1 | 25.2 | 120 | 120 | 120 | 16 - 19 | 87 / 88 |
| **DRL60-12-1** | 12 | 12 - 15 | 4.A | 54 | 120 | 120 | 120 | 16 - 19 | 87 / 87 |
| **DRL10-24-1** | 24 | - | 0.42 | 10 | 240 | 240 | 240 | 29 - 35 | 87 / 87 |
| **DRL30-24-1** | 24 | 24 - 28 | 1.25 | 30 | 240 | 240 | 240 | 29 - 35 | 88 / 90 |
| **DRL60-24-1** | 24 | 24 - 28 | 2.5 | 60 | 240 | 240 | 240 | 29 - 35 | 89 / 90 |
| **DRL100-24-1** | 24 | 24 - 28 | 4.2 | 100.8 | 240 | 240 | 240 | 29 - 35 | 88 / 90 |

## Outline Drawing DRL10-1




**Notes:**

A: Model, name, maximum output power, nominal output voltage, maximum output current are shown here in accordance with the specifications

B: Country of manufacture will be shown here

C: Recommended screw torque (M2.5 - M2.6 screw): 0.56N•m (5.0 lb•inch)

D: Recommended wire: AWG12-24, wire strip length: 4-5mm, 5mm max