



# LDP60 SERIES

## 60WATT OUTPUT

### LED POWER SUPPLY



### Features

- \* 60W Single / Dual outputs
- \* Universal AC input range 90-305Vac
- \* Constant Current Design
- \* Active PFC > 0.9
- \* Low inrush current < 5A
- \* Low profile with 25.2mm height and narrow 40mm width
- \* Low frequency flicker design
- \* Continuous short circuit protection
- \* Over temperature protection
- \* IP 67 Rated
- \* Fully isolated plastic case
- \* Dimming function: DALI / PWM / 1~10VDC / Potentiometer



| MODEL            | Output Rated Voltage | Constant Current Region | Ripple and Noise(Vpp max) <sub>N<sub>net</sub></sub> | Output Rated Current   | No Load Output Voltage (max.) | Output Rated Power | %EFF (tp) |
|------------------|----------------------|-------------------------|--|------------------------|-------------------------------|--------------------|-----------|
| LDP60A240-C250BR | 24V                  | 9-24Vdc                 | 0.24V  | 2500mA                 | 29Vdc                         | 60.0W              | 85%       |
| LDP60A240-C250B  | 24V                  | 16-24Vdc                | 2.2V   |                        |                               |                    | 88%       |
| LDP60A240-C210BR | 24V                  | 9-24Vdc                 | 0.24V  | 2100mA                 | 29Vdc                         | 50.4W              | 84%       |
| LDP60A240-C210B  | 24V                  | 16-24Vdc                | 2.2V   |                        |                               |                    | 87%       |
| LDP60A240-C175BR | 24V                  | 9-24Vdc                 | 0.24V  | 1750mA                 | 29Vdc                         | 42.0W              | 84%       |
| LDP60A240-C175B  | 24V                  | 16-24Vdc                | 2.2V   |                        |                               |                    | 86%       |
| LDP60A360-C166BR | 36V                  | 9-36Vdc                 | 0.36V  | 1666mA                 | 43Vdc                         | 60.0W              | 85%       |
| LDP60A360-C166B  | 36V                  | 24-36Vdc                | 2.7V   |                        |                               |                    | 89%       |
| LDP60A360-C140BR | 36V                  | 9-36Vdc                 | 0.36V  | 1400mA                 | 43Vdc                         | 50.5W              | 84%       |
| LDP60A360-C140B  | 36V                  | 24-36Vdc                | 2.7V   |                        |                               |                    | 88%       |
| LDP60A480-C125BR | 48V                  | 9-48Vdc                 | 0.48V  | 1250mA                 | 56Vdc                         | 60.0W              | 86%       |
| LDP60A480-C125B  | 48V                  | 32-48Vdc                | 4.8V   |                        |                               |                    | 90%       |
| LDP60A480-C105BR | 48V                  | 9-48Vdc                 | 0.48V  | 1050mA                 | 56Vdc                         | 50.4W              | 85%       |
| LDP60A480-C105B  | 48V                  | 32-48Vdc                | 4.8V   |                        |                               |                    | 89%       |
| LDP60B240-C125BR | 24V                  | 9-24Vdc                 | 0.24V  | V1 1250mA<br>V2 1250mA | 29Vdc<br>29Vdc                | 30.0W<br>30.0W     | 85%       |
| LDP60B240-C105BR | 24V                  | 9-24Vdc                 | 0.24V  | V1 1050mA<br>V2 1050mA | 29Vdc<br>29Vdc                | 25.2W<br>25.2W     | 84%       |
| LDP60B360-C083BR | 36V                  | 9-36Vdc                 | 0.36V  | V1 833mA<br>V2 833mA   | 43Vdc<br>43Vdc                | 30W<br>30W         | 85%       |
| LDP60B360-C070BR | 36V                  | 9-36Vdc                 | 0.36V  | V1 700mA<br>V2 700mA   | 43Vdc<br>43Vdc                | 25.2W<br>25.2W     | 84%       |
| LDP60B480-C062BR | 48V                  | 9-48Vdc                 | 0.48V  | V1 625mA<br>V2 625mA   | 56Vdc<br>56Vdc                | 30W<br>30W         | 87%       |

Note : Ripple and Noise are measured at 20MHz bandwidth with a 0.1uF ceramic capacitor and 10uF aluminum capacitor.

All specifications are Typical at nominal line, full load and 25°C unless otherwise noted

**Order Information:**

| Series | Output(W) | O/P: Single/Dual         | Output Voltage | Dimming Function   | Rated Output Current | Input Voltage   | Ripple Noise   |   |
|--------|-----------|--------------------------|----------------|--|----------------------|-----------------|--|---|
| LDP    | 60        | X                        | XXX            | X  | XXX                  | B               | X  |   |
|        |           | A : Single O/P with IP67 | 240 : 24V      | C : No dimming<br>D : DALI dimming<br>P : PWM 1-10V, Potentiometer | 24V                  | B : 100-277 Vac | R : 1% output ripple and noise or<br>Blank : 10% output ripple and noise |   |
|        |           |                          | 360 : 36V      |  | 36V                  |                 |  | 250: 2500mA<br>210: 2100mA<br>175: 1750mA |
|        |           |                          | 480 : 48V      |  | 48V                  |                 |  | 166: 1666mA<br>140: 1400mA                |
|        |           | B : Dual O/P with IP67   | 240 : 24V      |  | 24V                  |                 |  | 125: 1250mA<br>105: 1050mA                |
|        |           |                          | 360 : 36V      |  | 36V                  |                 |  | 125: 1250mA<br>105: 1050mA                |
|        |           |                          | 480 : 48V      |  | 48V                  |                 |  | 082: 833mA<br>070: 700mA<br>062: 625mA    |

**Specifications**

**INPUT SPECIFICATIONS:**

AC Input Voltage ..... 90~305Vac.  
 Frequency ..... 50/60Hz.  
 Power Factor.....115Vac/230Vac.....PF $\geq$ 0.9 at 75%~100%Load.  
 Inrush Current ..... <5A after 100us @240Vac, Cold Start @25°C.  
 Leakage Current ..... 0.75mA max.  
 No load Consumption.....2W typ.(Note 1)

**OUTPUT SPECIFICATIONS:**

Maximum Output Voltage..... See Table.  
 Constant Current Accuracy...(note 2)..... $\pm$ 5%max.  
 Current Line Regulation .....(note 3)..... $\pm$ 5%max.  
 Current Load Regulation .....(note 4)..... $\pm$ 5%max.  
 Start up time..... 0.5 second max.  
 Over Voltage Protection.....TVS Clamp.  
 Short Circuit Protection..... Hiccup Mode, Auto Recovery  
 Over Temperature Protection.....105°C typ.

**GENERAL SPECIFICATIONS:**

Efficiency.....See Table.  
 Temperature coefficient..... $\pm$ 0.05%/°C (0~50°C).  
 Isolation voltage, Input to output.....3.75KVac.  
 Isolation resistance, Input to output.....10<sup>8</sup> $\Omega$  min.  
 Operating Ambient Temperature .....-40 ~ 70°C (see derating curve).  
 Cooling.....natural convection.  
 Storage Temperature..... -40 ~ 85°C.  
 Operating Humidity.....20%~95%RH non-condensing.  
 Operating Altitude.....Sea Level to 3000m  
 MTBF,MIL-HDBK-217F (25°C Ta) .....200K Hrs.  
 Dimensions.....10.315x1.575x0.992inch (262.00x40.00x25.20mm).  
 Weight.....530g.

**LDP60 Series Derating Curve**



**SAFETY AND EMISSIONS:**

Safety.....UL8750, IEC/EN61347-1  
 IEC/EN61347-2-13  
 EMI.....FCC part 15/EN55015 Class B  
 EMS.....EN61547,EN61000-4-2,3,4,5,6,8,11  
 EN61000-3-2 Harmonic Class C,EN61000-3-3

**NOTE:**

- 1.No load power consumption 1W will be introduced in Sep. 2014.
2. Current accuracy is set at nominal input voltage and full load.
3. Line regulation is measured from High Line to Low Line with full load.
4. Load regulation is measured minimum to maximum of the constant current region
5. Nominal Input Voltage at 230Vac
6. The input/output wires accessibility shall be evaluated during final system assembly.

*All specifications are Typical at nominal line , full load and 25°C unless otherwise noted*

**Mechanical Specification**

**Single output**



**Dual Output**



All specifications are Typical at nominal line , full load and 25°C unless otherwise noted