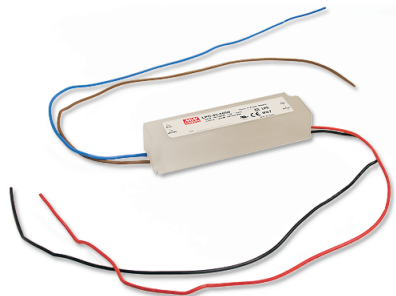


# LPC-35 Series

35 Watt Constant Current / Constant Voltage  
LED Power Supplies

**CLICK HERE TO REQUEST**  
PRICE | DELIVERY | SAMPLE | SUPPORT

Size: 5.83 x 1.57 x 1.18"



■ Features :

- Constant current design
- Universal AC input / Full range
- Epoxy encapsulated with IP67 level
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Over current / Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- UL1310 Class 2 power unit, pass LPS
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED lighting and moving sign applications
- 2 years warranty

LPS IP67 (for 48V only) US (except for 48V)

**SPECIFICATION**

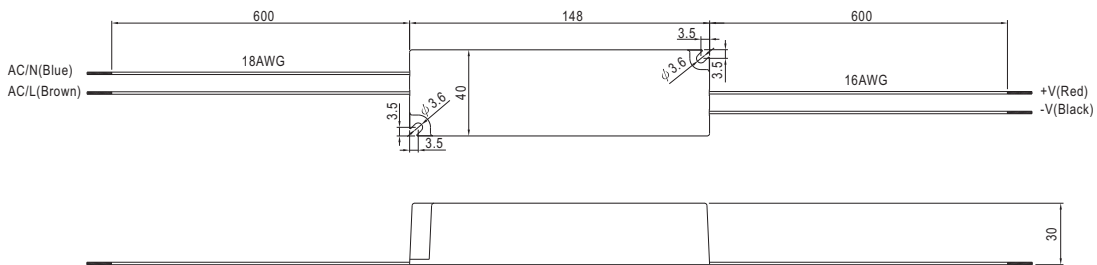
MODEL	LPC-35-700	LPC-35-1050	LPC-35-1400	
OUTPUT	RATED CURRENT	700mA	1050mA	1400mA
	DC VOLTAGE RANGE	9 ~ 48V	9 ~ 30V	9 ~ 24V
	RATED POWER	33.6W	31.5W	33.6W
	RIPPLE & NOISE (max.) Note.2	200mVp-p	200mVp-p	200mVp-p
	VOLTAGE TOLERANCE Note.3	±5.0%		
	LINE REGULATION	±1.0%		
	LOAD REGULATION	±2.0%		
	SETUP, RISE TIME Note.6	500ms, 120ms / 230VAC 500ms, 120ms / 115VAC at full load		
HOLD UP TIME (Typ.)	50ms/230VAC 16ms/115VAC at full load			
INPUT	VOLTAGE RANGE	90 ~ 264VAC	127 ~ 370VDC	
	FREQUENCY RANGE	47 ~ 63Hz		
	EFFICIENCY (Typ.)	85%		
	AC CURRENT	1.1A/115VAC 0.7A/230VAC		
	INRUSH CURRENT(max.)	COLD START 30A/115VAC 60A/230VAC		
LEAKAGE CURRENT	0.25mA / 240VAC			
PROTECTION	CURRENT LIMIT Note.4	±5% rated output current Protection type : Constant current limiting type		
	OVER VOLTAGE	50.4 ~ 60V	31.5 ~ 40.5V	27.6 ~ 32.4V
ENVIRONMENT	WORKING TEMP.	-30 ~ +75°C (Refer to output load derating curve)		
	WORKING HUMIDITY	20 ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
SAFETY & EMC	SAFETY STANDARDS	UL1310 Class 2, CAN/CSA C22.2 No. 223-M91(except for 48V), IP67 approved, design refer to TUV EN60950-1, EN61347-2-13		
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC		
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C / 70% RH		
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B		
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3		
OTHERS	EMTBF	743.5Khrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	148*40*30mm (L*W*H)		
NOTE	PACKING	0.34Kg; 40pcs/14.6Kg/0.63CUFT		
	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Derating may be needed under low input voltage. Please check the derating curve for more details. 5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-quality EMC Directive on the complete installation again. 6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.			

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Size: 5.83 x 1.57 x 1.18"

**Mechanical Specification**

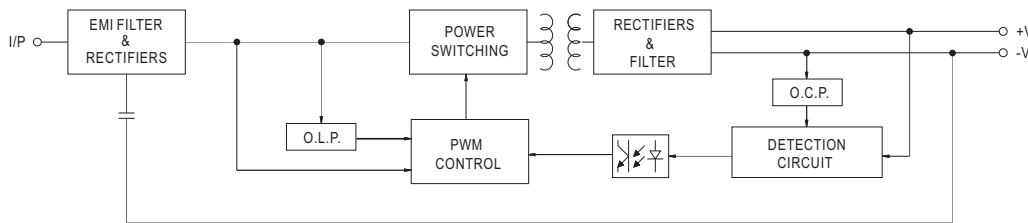
Case No. 975A Unit:mm



The drawing shows a top view and a side view of the power supply. The top view is a rectangle with a total length of 148mm and a width of 30mm. On the left side, there are two input wires: AC/N (Blue) and AC/L (Brown), both labeled as 18AWG. On the right side, there are two output wires: +V (Red) and -V (Black), both labeled as 16AWG. The distance from the left edge to the start of the output wires is 60mm. The distance between the two output wires is 3.5mm. The distance from the end of the output wires to the right edge is 60mm. The height of the component is 30mm. There are also some small dimensions like 3.5mm and 40mm indicated for specific features.

**Block Diagram**

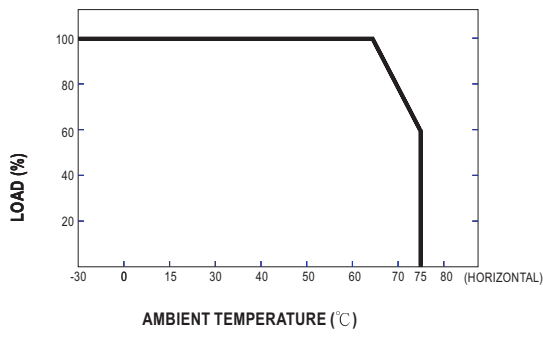
fosc : 60KHz



The block diagram shows the internal circuitry. It starts with an I/P terminal connected to an EMI FILTER & RECTIFIERS block. This is followed by a POWER SWITCHING block, which is connected to a transformer. The secondary of the transformer is connected to a RECTIFIERS & FILTER block. The output of the rectifier is connected to an O.C.P. (Over Current Protection) block and a DETECTION CIRCUIT block. The DETECTION CIRCUIT is also connected to a PWM CONTROL block, which provides feedback to the POWER SWITCHING block. The final output is taken from the +V and -V terminals.

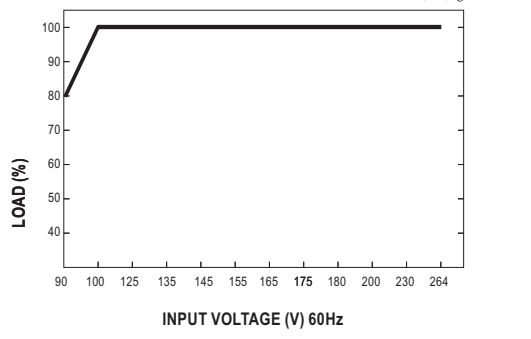
**Derating Curve**

**Static Characteristics**



The derating curve shows that the load capacity is 100% from -30°C to 65°C. Between 65°C and 75°C, the load capacity decreases linearly from 100% to 60%. At 75°C, the load capacity drops to 0%.

Ambient Temperature (°C)	Load (%)
-30	100
0	100
15	100
30	100
45	100
60	100
65	100
70	80
75	60
80	0



The static characteristics graph shows that the load capacity is 80% at 90V and increases to 100% at 100V. It remains at 100% up to 264V.

Input Voltage (V) 60Hz	Load (%)
90	80
100	100
110	100
125	100
135	100
145	100
155	100
165	100
175	100
180	100
190	100
200	100
210	100
220	100
230	100
240	100
250	100
264	100

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**POWERGATE LLC**  
Global Power Solutions

**(866) 588-1750**  
www.led-pwr.com  
sales@powergateinc.com