

# ELN-30-D Series

30W IP64 Dimming Function LED Lighting Power Supplies



Case: 8012CE  
145 x 47 x 30mm

## Features

- Universal AC input up to 264VAC
- 1.1~10VDC dimming function
- Adjustable output voltage & constant current levels
- IP64 level fully isolated plastic case
- Short circuit, over load, over voltage protections
- Class II power unit, no FG
- Passes LPS
- 100% full load burn-in test
- Cooling by free air convection



## Specification

INPUT	<b>Voltage</b>	90V~264VAC or 127V~370VDC.						
	<b>Frequency</b>	47 ----- 63 Hz						
	<b>Current</b>	0.75A/115VAC		0.48A/230VAC				
	<b>Inrush Current</b>	60A@230VAC						
	<b>Leakage Current</b>	0.25mA/ 240VAC input						
OUTPUT	<b>MODEL No.</b>	<b>ELN-30-5D</b>	<b>ELN-30-9D</b>	<b>ELN-30-12D</b>	<b>ELN-30-15D</b>	<b>ELN-30-24D</b>	<b>ELN-30-27D</b>	<b>ELN-30-48D</b>
	<b>Voltage</b>	5V	9V	12V	15V	24V	27V	48V
	<b>Voltage Adj. Range</b>	4.5~5.5V	8.7~10.5V	10.8~13.2V	13.5~16.5V	21.6~26.4V	24.3~29.7V	43.2~52.8V
	<b>Constant Current Operation</b>	3~5V	3~9V	3~12V	3~15V	3~24V	3~27V	3~48V
	<b>Rated Current</b>	5A	3.4A	2.5A	2A	1.25A	1.12A	0.63A
	<b>Power</b>	25W	30.6W	30W	30W	30W	30.24W	30.24W
	<b>Ripple &amp; Noise</b>	80mV	100mV	120mV	120mV	150mV	150mV	250mV
PROTECTION	<b>Efficiency (TYP.)</b>	75%	80%	82%	82%	85%	85%	87%
	<b>Over Voltage</b>	5.75~6.75V	11~13.5V	13.8~16V	17.5~21V	28~32V	31~36.4V	54~60V
	<b>Over Current</b>	Shutdown output voltage, re-power on to recover						
ELEC. CHAR.	<b>Current Adj. Range</b>	95~110%; constant current limiting, recovers automatically after fault condition is removed						
	<b>Voltage Tolerance</b>	±5.0%						
	<b>Line Regulation</b>	±1.0%						
	<b>Load Regulation</b>	±2.0%						
	<b>Setup Time</b>	500ms, 80ms@230VAC 1000, 80ms@115VAC, full load						
ENVIRONMENT	<b>Hold Up Time</b>	50ms@230VAC 16ms@115VAC, full load						
	<b>Temperature</b>	Operating: -20~+60°C ; De-rating: 40~60°C@50% load ; Storage: -40~ +80°C						
	<b>Humidity</b>	Operating: 20%~90% RH; Storage: 10%~95% RH (non condensing)						
	<b>Temp. Coefficient</b>	±0.03%/°C (0~50°C)						
SAFETY	<b>Vibration</b>	10~500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes						
	<b>Withstand Voltage</b>	I/P-O/P:3KVAC						
	<b>Isolation Resistance</b>	I/P-O/P:>100M Ohms / 500VDC / 25°C/ 70% RH						
EMC	<b>Safety Standard</b>	UL1310 Class 2, CAN/CSA C22.2 No. 223-M91 (except for 48V); design refers to TUV EN60950-1, EN61347-2-13						
	<b>EMI</b>	Compliance to EN55022 (CISPR22) Class B,EN61000-3-2 ClassA, EN61000-3-3						
OTHERS	<b>EMS</b>	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A						
	<b>M.T.B.F.</b>	628.3K hrs min. MIL-HDBK-217F (25°C)						
	<b>Packing</b>	N.W.:0.26Kg / 1pc; 60pcs / 16.6Kgs; 1.25CUFT / 1 CTN						

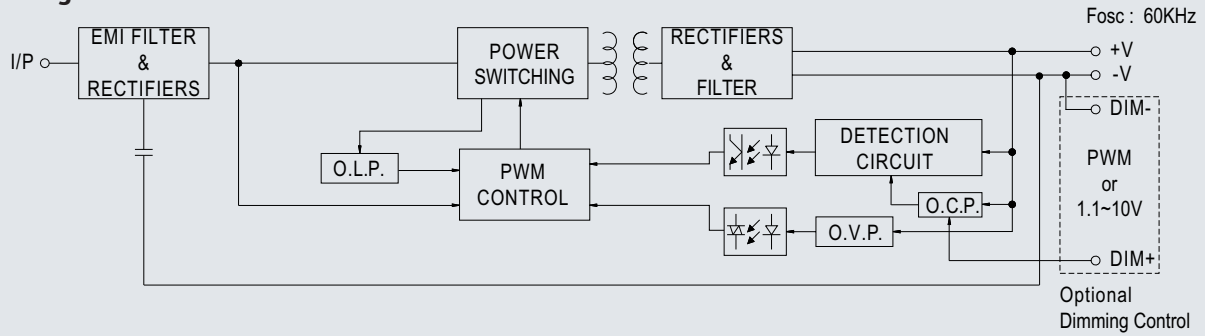
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Derating may be needed under low input voltage. Please check the static characteristics for more details.
5. Constant current operation region is within the specified output voltage range above. This is the suitable operation region for LED related applications.
6. The power supply is considered 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-qualify EMC Directive on the complete installation.
7. Length of set up time is measured at first cold start. Turning the power supply ON/OFF may lead to increased set up time.
8. In the European market this power supply can be used for LED lighting applications with input power up to 25W.

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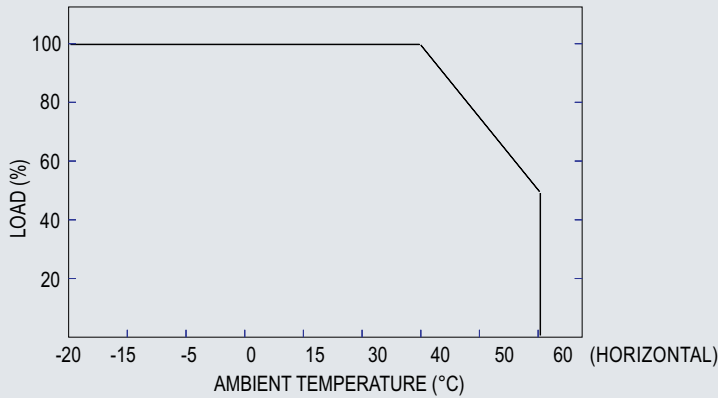
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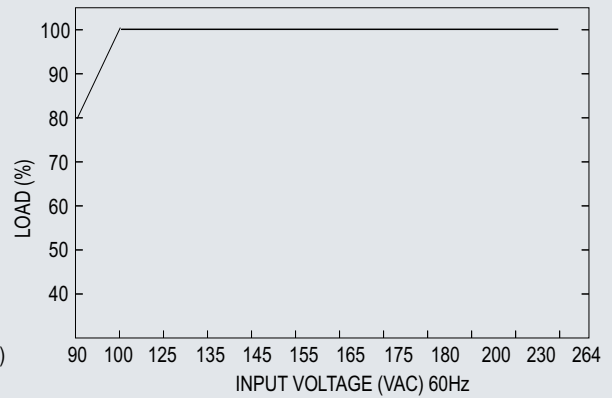
## Block Diagram



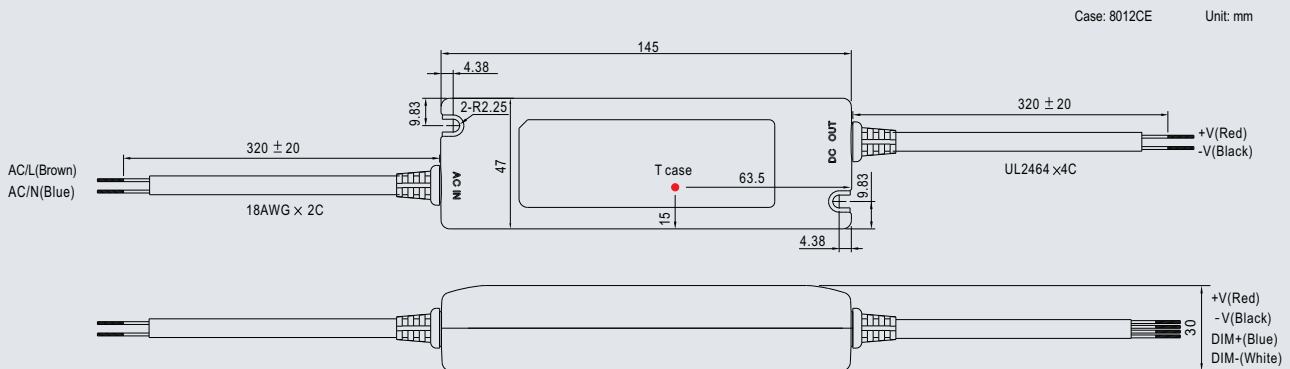
## De-Rating Curve



## Static Characteristics

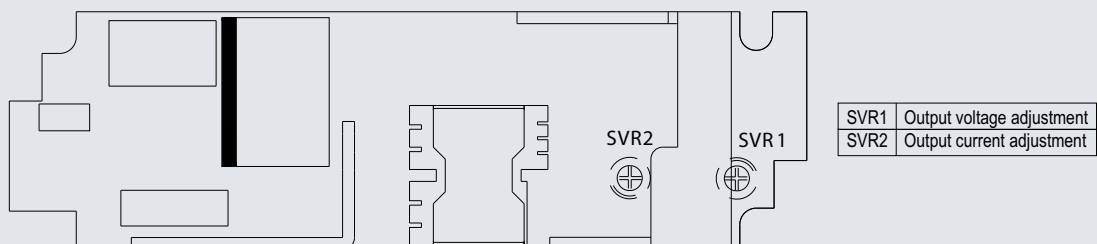


## Dimensions



### Output Voltage and Current Adjustment

Remove the upper case and adjust through SCR1 % SVR2, as shown in diagram below



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## Dimming Control

The level of output current can be adjusted through the dimming control function.

When there is no signal to the control wires (open circuit between the two control wires), the power supply will operate as 0V of input signal and the output current will be zero.

