



■ Features :

- Universal AC input / Full range
- Fully isolated plastic case with IP64 level
- Built-in constant current limiting circuit with adjustable OCP level
- Protections: Short circuit / Overload / Over voltage
- Optional dimming function : 1.1~10VDC (D type) or PWM (P type) controlled
- UL1310 Class 2 power unit
- Cooling by free air convection
- 100% full load burn-in test
- Suitable for LED lighting and moving sign applications
- Low cost
- 2 years warranty

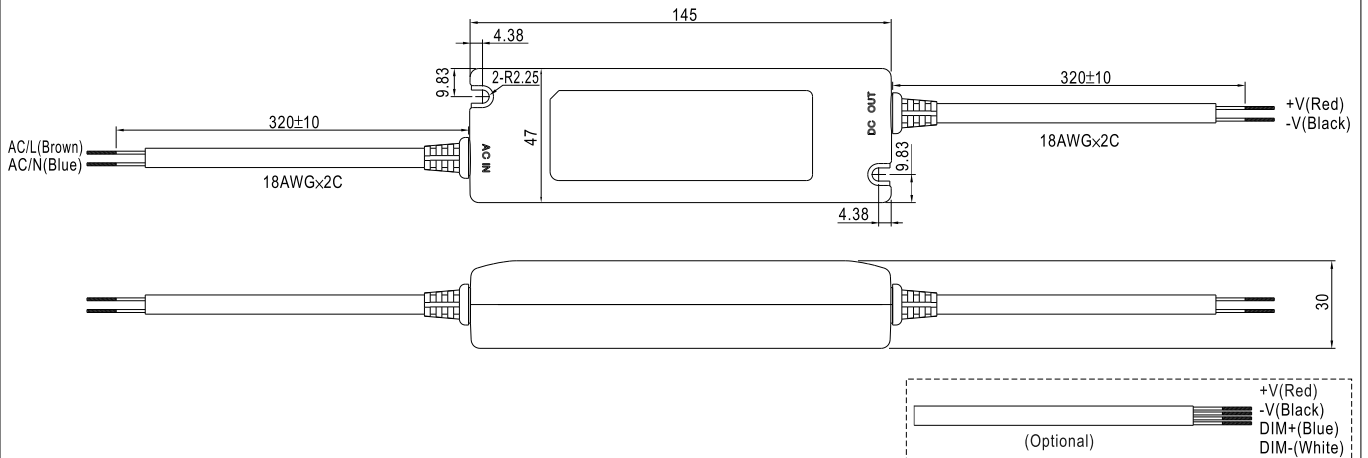
SPECIFICATION

IP64 CE

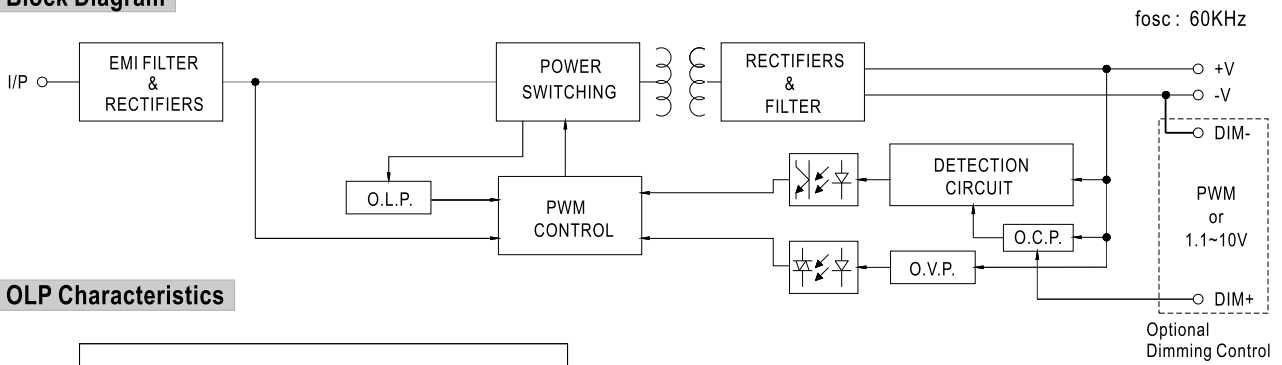
MODEL	ELN-30-5	ELN-30-9	ELN-30-12	ELN-30-15	ELN-30-24	ELN-30-27	ELN-30-48	
OUTPUT	DC VOLTAGE	5V	9V	12V	15V	24V	27V	48V
	RATED CURRENT	5A	3.4A	2.5A	2A	1.25A	1.12A	0.63A
	CURRENT RANGE	0 ~ 5A	0 ~ 3.4A	0 ~ 2.5A	0 ~ 2A	0 ~ 1.25A	0 ~ 1.12A	0 ~ 0.63A
	RATED POWER	25W	30.6W	30W	30W	30W	30.24W	30.24W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	100mVp-p	120mVp-p	120mVp-p	150mVp-p	150mVp-p	250mVp-p
	VOLTAGE ADJ. RANGE	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
	CURRENT ADJ. RANGE	-25% ~ 3%						
	VOLTAGE TOLERANCE Note.3	±5.0%						
	LINE REGULATION	±1.0%						
	LOAD REGULATION	±2.0%						
INPUT	SETUP, RISE TIME Note.6	500ms, 50ms / 230VAC 1000ms, 50ms / 115VAC at full load						
	HOLD UP TIME (Typ.)	50ms/230VAC 16ms/115VAC at full load						
	VOLTAGE RANGE	90 ~ 264VAC						
	FREQUENCY RANGE	47 ~ 63Hz						
	EFFICIENCY (Typ.)	75%	80%	82%	82%	85%	85%	87%
	AC CURRENT	0.75A/115VAC 0.48A/230VAC						
PROTECTION	INRUSH CURRENT(max.)	COLD STAR 60A/230VAC						
	LEAKAGE CURRENT	0.25mA / 240VAC						
	OVER CURRENT Note.4	95 ~ 110% Protection type : Constant current limiting, recovers automatically after fault condition is removed						
FUNCTION	OVER VOLTAGE	5.75 ~ 6.75V	11 ~ 13.5V	13.8 ~ 16V	17.5 ~ 21V	28 ~ 32V	31 ~ 36.4V	54 ~ 60V
	DIMMING CONTROL (OPTIONAL)	1 ~ 10VDC or PWM Protection type : Shut down o/p voltage, re-power on to recover						
ENVIRONMENT	WORKING TEMP.	-20 ~ +60°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	Design refer to UL1310 Class 2, TUV EN60950-1, CAN/CSA C22.2 No. 223-M91(except for 48V), EN61347-2-13; IP64 approved						
	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						
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A						
OTHERS	MTBF	628.3Khrs min. MIL-HDBK-217F (25°C)						
	DIMENSION	145*47*30mm (L*W*H)						
	PACKING	0.26Kg; 60pcs/16.6Kg/1.2CUFT						
NOTE	<ol style="list-style-type: none"> 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 a component which will be installed a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 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. 							

Mechanical Specification

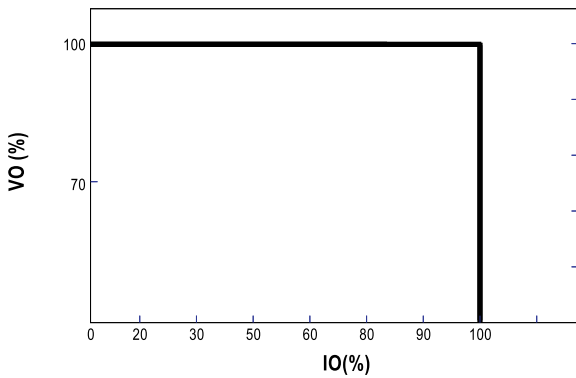
Case No.964A Unit:mm



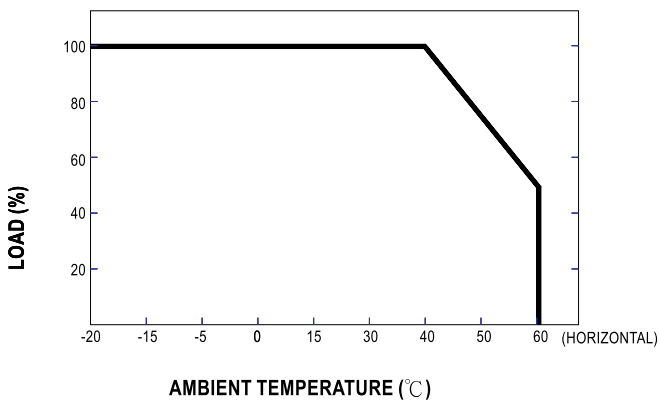
Block Diagram



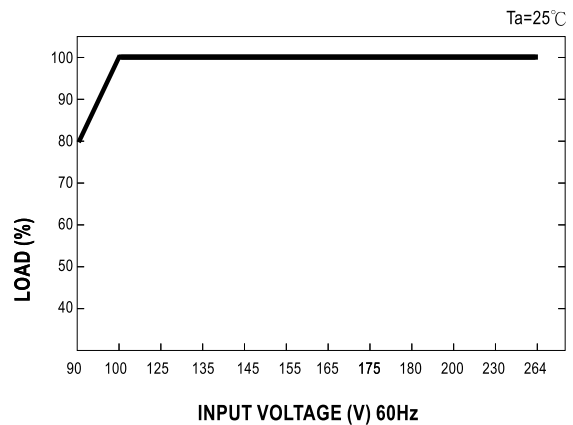
OLP Characteristics



Derating Curve

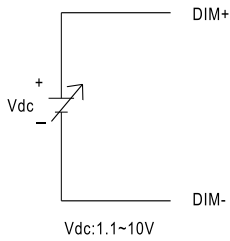


Static Characteristics

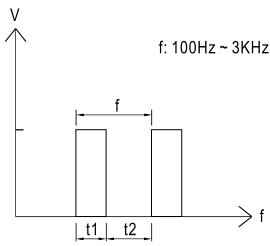


Dimming Control (For Reference)

(1) 1.1~10V

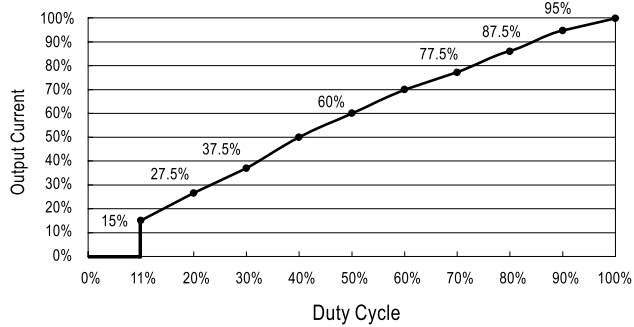
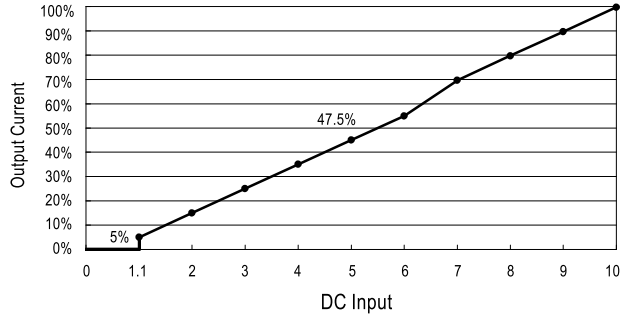


(2) PWM

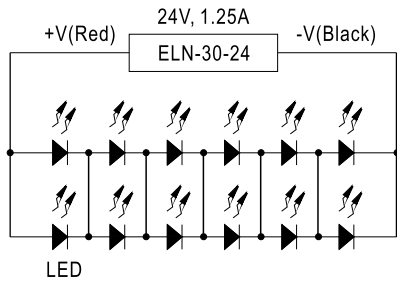


$$\text{Duty} = \frac{t1}{t1+t2}, 0 \sim 100\%$$

Lo: 0V Hi: 10V



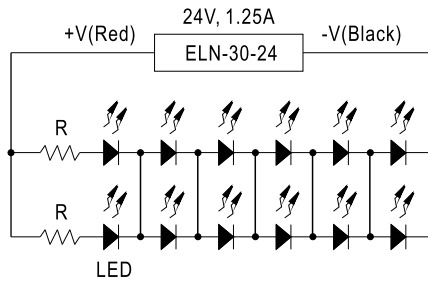
Recommend Application Deployment (24V)



1 to 6 LEDs // 2 strips

This configuration is based on LED with the following parameters :

$V_f = 3.0 \sim 3.5V$ $I_f = 600 \sim 700mA$

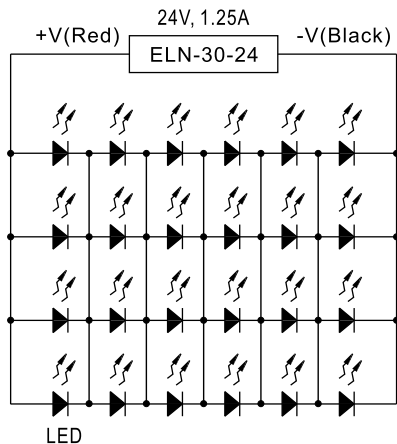


6 LEDs // 1 to 2 strips

This configuration is based on LED with the following parameters :

$V_f = 3.0 \sim 3.5V$ $I_f = 600 \sim 700mA$

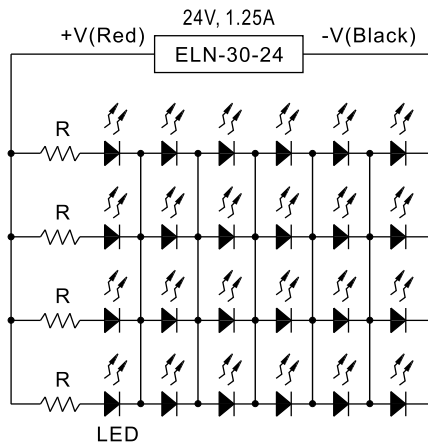
$R = 10 \text{ ohm}, 10W$



1 to 6 LEDs // 4 strips

This configuration is based on LED with the following parameters :

$V_f = 3.0 \sim 3.5V$ $I_f = 300 \sim 350mA$



6 LEDs // 1 to 4 strips

This configuration is based on LED with the following parameters :

$V_f = 3.0 \sim 3.5V$ $I_f = 300 \sim 350mA$

$R = 20 \text{ ohm}, 3W$