

### **■** Features:

AC input (100-277VAC)
Built-in PFC function
Protections:Short circuit / Over voltage
LVLE power unit
Three in one dimming function (0-10Vdc or PWM or resistance)
Suitable dry / damp locations
100% full load burn-in test
High Efficiency :86%-88%(Typ.)
5 years warranty

#### **■** SPECIFICATION

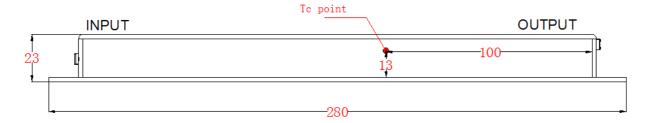
	MODEL	LL-DR-38V0A30-38WYTx								
	DC	48V								
	VOLTAGE(Max)	401								
	CONSTANT CURRENT REGION	23-42V								
	RATED CURRENT	0.3A								
	RIPPLE&NOISE(max.)	2Vp-p								
	CURREN TOLERANCE	±10%								
OUTPUT	LINE REGULATION	±2%								
001101	LOAD REGULATION	±5%								
	SETUP,RISETIME	<2000ms/ 115VAC at full load , <1000ms / 277V AC at full load								
	HOLD UP TIME(TYP)	16ms at full load 277VAC / 115VAC								
	VOLTAGE RANGE	100~277VAC								
	RATED POWER	12W								
	FREQUENCY RANGE	47~63Hz								
	POWER FACTOR(Typ)	PF>0.99/115VAC, PF>0.98/230VAC, PF>0.95/277VAC at full load								
INPUT	THD	<20%								
	EFFICIENCY(Typ.)	90%								
	ACCURRENT AT 12W (TYP)	0.2A / 100VAC								
	INRUSH CURRENT(TYP)	COLD START 75A at 277VAC								
	LEAKAGE CURRENT	<0.75mA/277VAC								
	OVER ORDOUT	95-110 %								
	OVER CIRCUIT	Protection type : Constant current limiting, recovers automatically after fault condition is removed								
PROTE	Integral short circuit	Hiccup mode, recovers automatically after fault condition is removed								
CTION	Open Voltage	50-60V								
0	protection	Protection type: Shut down and latch off o/p voltage, re-power on to recover								
		105-120 %								
	Overload protection	Hiccup mode, recovers automatically after fault condition is removed								
	WORKING TEMP.	-40 ~ +60℃								
	WORKING HUMIDITY	20~95%RH non-condensing								
ENVIRO	STORAGE TEMP.,HUMIDITY	-40 ~ +80℃ , 10 ~ 95%RH								
NMENT	TEMP.COEFFICIENT	±0.03%/℃(0~50°C)								
-	VIBRATION	10~500Hz, 2G 12 min./1cycle, period for 72 min.each along X,Y,Z axes								
	SAFETY STANDARDS	design refer to UL8750, CSA C22.2 No. 250.0-08, EN61347-1, EN61347-2-13, UL60950-1, TUV EN60950-1								



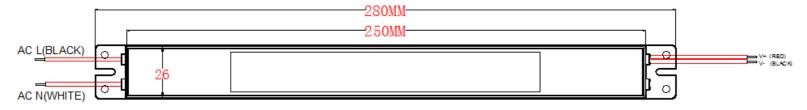
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG: 2KVAC O/P-FG:0.5KVAC									
SAFETY &	ISOLATION RESISTANCE	I/P-O/P , I/P-FG , O/P-FG : 100M Ohms /500VDC /25℃//70%RH									
EMC	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C ;EN61000-3-3									
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV),criteria A									
OTUEDO	MTBF	300Khrs min. MIL-HDBK-217F(25℃)									
OTHERS	DIMENSION	280*26*23mm(L*W*H)									
NOTE	Suffix "XAXX" after letter V is 4 digit number which represents the output current in ampere for each output channel, for example, "5A00" means 5.0 A, "0A67" means 0.67 A.  Suffix "Y" after letter 38W is "D" or "N", suffix "D" which represents the dimmer type, suffix "N" which represents no dimmer type.										

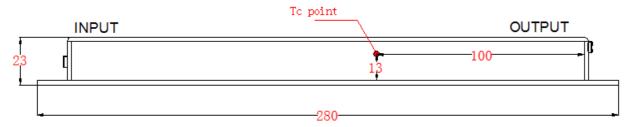
# Mechanical Specification





Remark: Support 0-10Vdc or PWM or resistance dimming function.

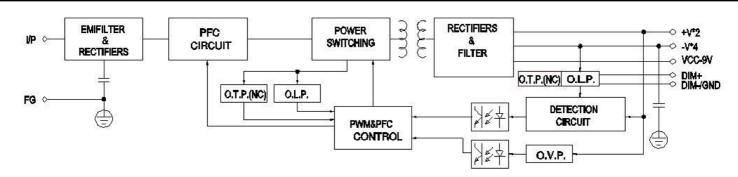




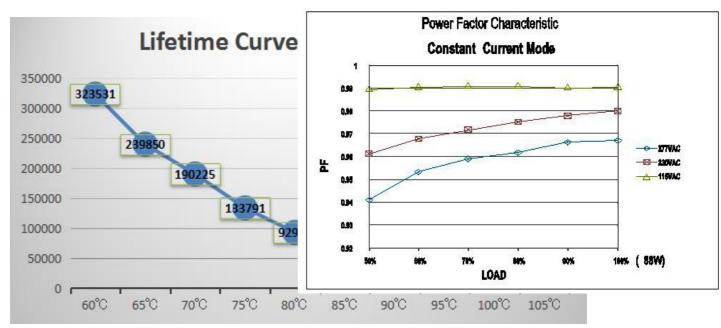
Remark: without dimming switch.

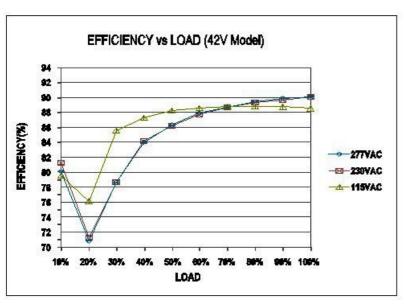
# Block Diagram





The life time curve:												
TC (℃)	60℃	65℃	<b>70</b> ℃	<b>75℃</b>	80℃	<b>85</b> ℃	90℃	95℃	100℃	<b>105</b> ℃		
<b>TA</b> (℃)	25℃	30℃	35℃	40℃	45℃	50℃	55℃	60℃	65℃	70℃		
The power of life (Hour)	323531	239850	190225	133791	92923	75409	59646	57311	53029	50110		



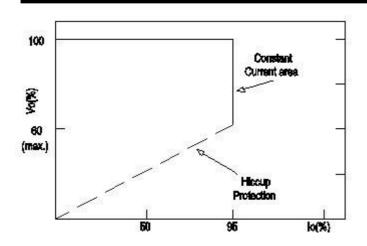


#### OF LED MODULE

**DRIVING METHODS** 

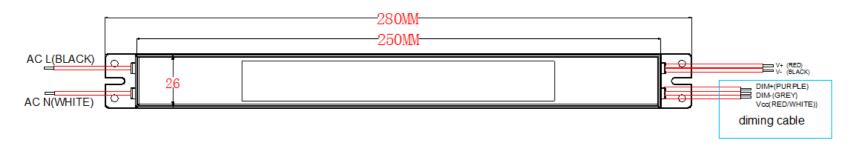
This LED power supply is suggested to work in constant current mode area (CC) to drive the LEDs





Typical LED power supply I-V curve

#### DIMMING OPERATION



Built-in 3 in 1 dimming function,output constant current level can be adjusted through dimming cable by connecting a resistance or 0~10Vdc or 10V PWM signal between DIM+ and GND.

Please DO NOT connect "DIM-" to "V-1".

Reference resistance value for output current adjustment (Typical)

	Single driver	0 Ω	<b>10K</b> Ω	20Κ Ω	<b>30K</b> Ω	<b>40K</b> Ω	<b>50K</b> Ω	<b>60K</b> Ω	<b>70K</b> Ω	<b>80K</b> Ω	<b>90K</b> Ω	<b>100K</b> Ω	OPEN
Resistance value	Multiple drivers (N=driver quantity for synchronized dimming operation	<b>0</b> Ω /N	<b>10K</b> Ω /N	<b>20K</b> Ω /N	<b>30K</b> Ω /N	<b>40K</b> Ω /N	<b>50K</b> Ω /N	<b>60K</b> Ω /N	<b>70K</b> Ω /N	<b>80K</b> Ω /N	<b>90K</b> Ω /N	<b>100K</b> Ω /N	
Percentage of rated current		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%-110 %

0~10V dimming function for output current adjustment (Typical)

				01110 01101								
Dimming	0V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
value												
Percentage of rated current	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%-110%

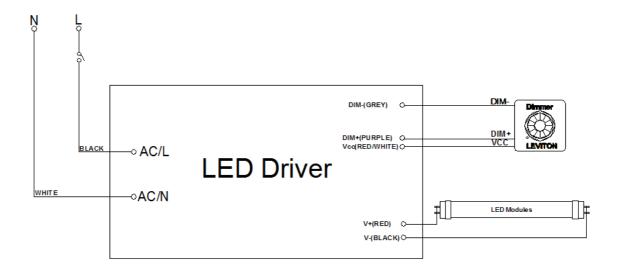
10V PWM signal for output current adjustment (Typical): Frequency range: 100HZ~3KHz

104 1 441	n signai id	n output t	current au	justinent	(Typical).	rypical). I requestey range: 100Hz~3KHz							
Duty value	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN	
,	• / •	1.070		0070	1070	00,0	•• /•	1 4 70	•• /•	•• /•	1.0070	0	
Percentage	0%	10%	20%	30%	40%	50%	50%	70%	80%	90%	100%	95%-110%	
of rated													
current											1	1	

Using the built-in dimming function can't turn the lighting fixture to tally dark. Please refer to the connection method below to achieve 0% brightnes of the lighting fixture connecting to the LED power supply unit.



### Dimming connection diagram for turning the lighting fixture ON/OFF:



# Using a switch and relay can turn ON/OFF the lighting fixture.

- 1.Out put constant current level can be adjusted through dimming cable by connecting a resistance or 0~10Vdc or 10V PWM signal between DIM+ and DIM-.
- 2. The LED lighting fixture can be turned ON/OFF by the switch or dimming.