S.M.P.S | LED Converter | Water Proof Converter

600CP2 Series

500W single output with c.c circuit
and PFC function

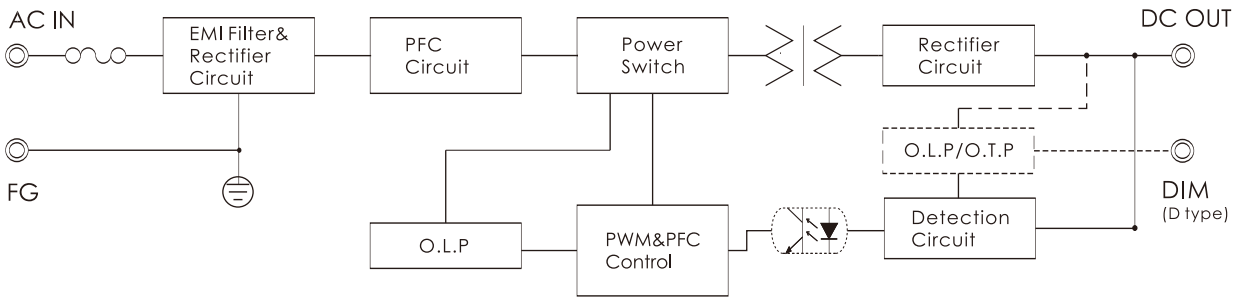
- Constant current design
- Built-in PFC function
- Protections:Over current /Short circuit
- IP68 design for outdoor installations
- 3 in 1 dimming function(option:D type)
- Suitable for LED lighting and street lighting applications
- Safety standards : K61347-2-1,K61347-2-13,
- EMC standards : K00015,K61547
- Metal case

UPF600S48CP2□
Blank : IP68 rated. Cable for I/O connection.
Output current level can be adjusted through internal potentiometer
D(option) : IP68 rated. Constant current level adjustable through output cable with 10V PWM signal or 1-10Vdc or resistance

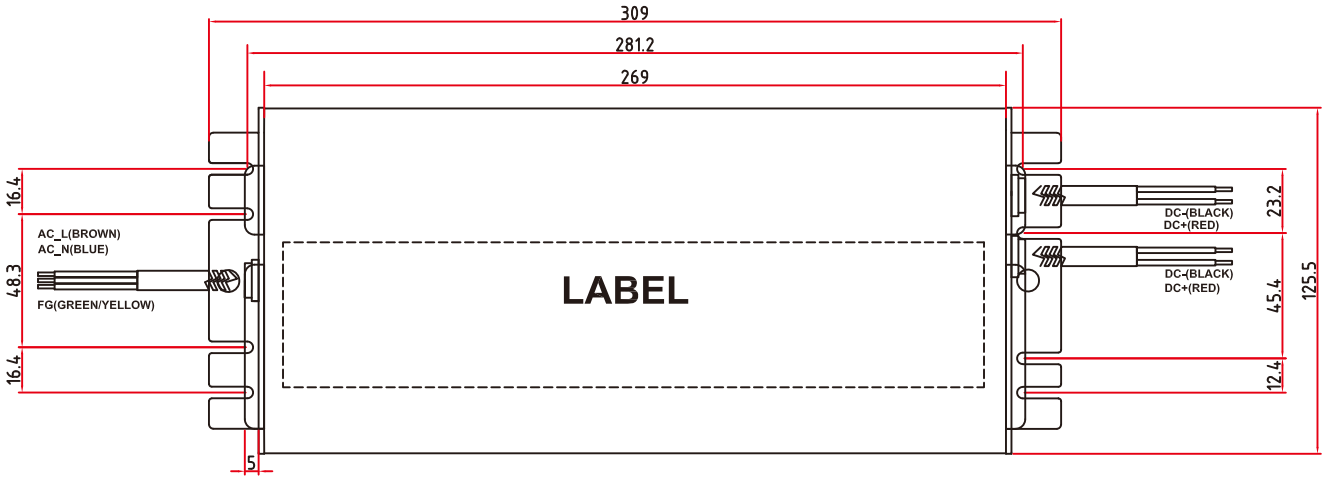
IP68 SELV

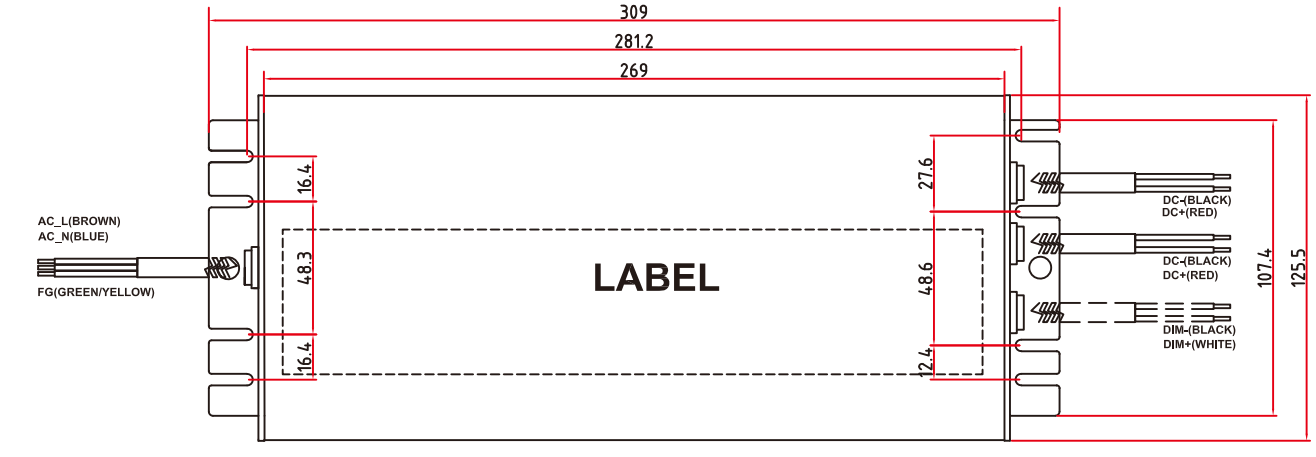
ITEM		UPF600S48CP2 □
INPUT	VOLTAGE RANGE	AC180~264V
	FREQUENCY RANGE	47~63Hz
	POWER FACTOR	PF>0.95 at over 75% of rated power
	EFFICIENCY(typ.)	93.5%
	AC CURRENT(typ.)	2.83A/220VAC(typ)
	INRUSH CURRENT(typ.)	65A/220VAC
	LEAKAGE CURRENT	<2.5mA / 220VAC
OUTPUT	RATED CURRENT	11.75A
	CONSTANT CURRENT REGION	42-48V
	RATED POWER	564W
	CURRENT ADJ. RANGE	10.5~12.9A
	CURRENT ACCURACY	±5%
	RIPPLE&NOISE(max.) Note2	1500mVp-p
	SETUP,RISE TIME(max.)	3000ms,100ms/220VAC at full load
PROTEC -TION	OVER CURRENT Note3	Over 95~108% of rating
	SHORT CIRCUIT	Hiccup mode ; recovers automatically after fault condition is removed
ISOLA -TION	WITHSTAND VOLTAGE	I/P-O/P:AC3.75KV, I/P-F.G:AC2KV, O/P-F.G:AC0.5KV
	ISOLATION RESISTANCE	I/P-O/P, I/P-F.G, O/P-F.G:DC500V 100Mohms(At room temp. & humid.)
ENVIRON -MENT	WORKING TEMP.&HUMID.	-30~+50℃(Refer to "DERATING CURVE),20~95%RH
	STORAGE TEMP.&HUMID.	-40~+80℃,10~95%RH
	VIBRATION	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes
OTHERS	DIMENSION/WEIGHT	309*125.5*46.2mm(L*W*H)/2.9Kg
NOTE	1. All parameters not specially mentioned are measured at 220Vac input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pare-wire terminated with 0.1 uF & 47uF parallel capacitor. 3. Refer to "DRIVING METHODS of LED MODULE" 4. Turn on the AC switch after connecting the driver and the LED load	

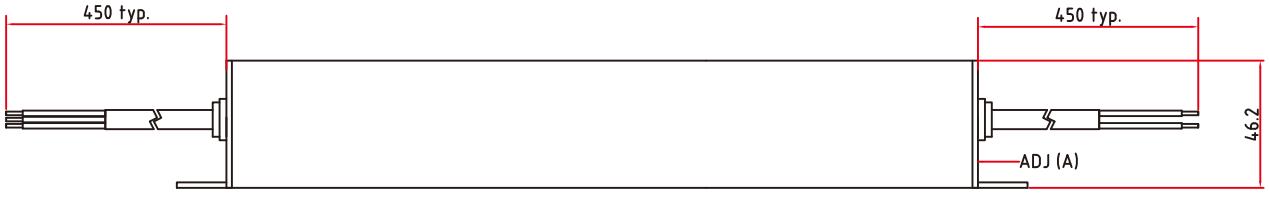
■ BLOCK DIAGRAM



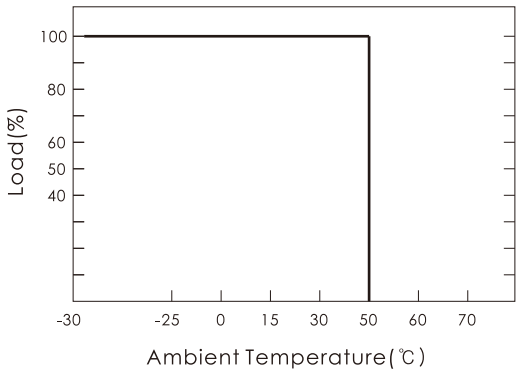
■ DIMENSIONS(unit:mm)



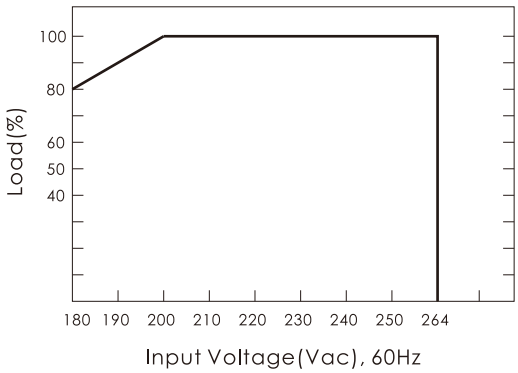




■ DERATING CURVE

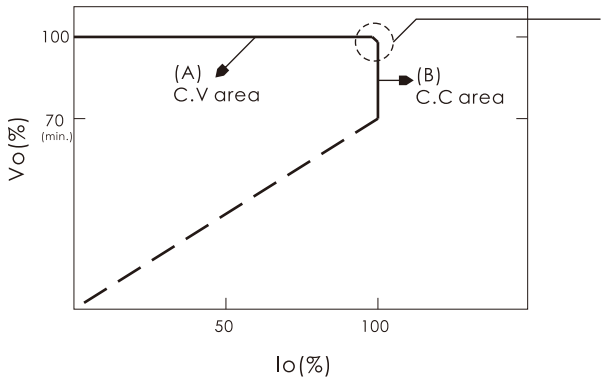


■ STATIC CHARACTERISTICS



■ DRIVING METHODS of LED MODULE

- **C.V.+C.C. characteristics can be operated at both C.V. mode(with LED driver, at area (A)) and C.C. mode(direct driver, at area(B))**
- **At the moment of power on, the LED converter will work in C.V. Mode and can be provide a peak output current; after the LED turns on, the LED converter will go into C.C. Mode(patern pending)**



In the constant current region, the highest voltage at the output of the driver depends on the configuration of the systems.

■ DIMMING OPERATION(option:D type)

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

- **Please do not connect 'DIM-' to 'V-'**

- 10V PWM signal for output current adjustment(typ.):
  frequency range:100Hz~3KHz

Duty Value	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Open
Percent of Rated Current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~108%

- 1-10V dimming function for output current adjustment(typ.)

Dimming Value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	Open
Percent of Rated Current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~108%

- Reference resistance value for output current adjustment(typ.)

Resistance Value											
	Single driver	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	Open
	Multiple driver (N=driver quantity for synchronized dimming operation)	10KΩ /N	20KΩ /N	30KΩ /N	40KΩ /N	50KΩ /N	60KΩ /N	70KΩ /N	80KΩ /N	90KΩ /N	100KΩ /N	---
Percent of Rated Current		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~108%