

S.M.P.S

LED Converter

Water Proof Converter

100PW2 Series

100W single output
with constant voltage circuit



- **Constant voltage design(C.V. mode)**
- AC Input voltage 180-264V
- Protections: Over load/Over voltage/Short circuit Over temperature(option)
- IP68 design for outdoor installations
- 100% full load burn-in test
- 3 in 1 dimming function(0~10V,PWM,RES)
- Suitable for LED lighting and moving sign applications
- **Metal case**
- Safety standards : EN61347-1,EN61347-2-13
- EMC standards : EN55022,EN61204-3,EN61000-3-2,3
- 3years warranty

IP68     SELV CB CE 

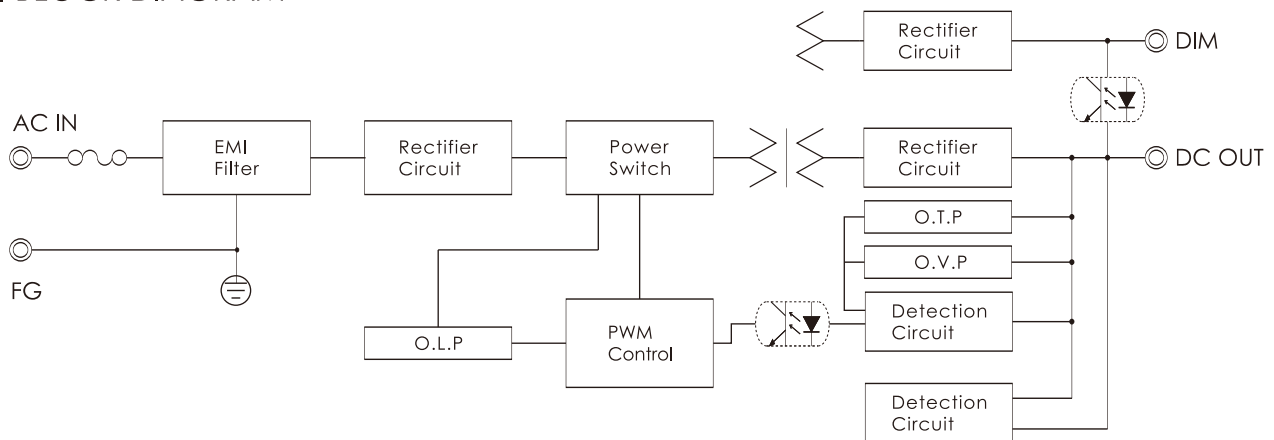
ITEM		UP100S12PW2	UP100S24PW2
INPUT	VOLTAGE RANGE	AC180~264V	
	FREQUENCY RANGE	47~63Hz	
	EFFICIENCY(typ.)	90%	91%
	AC CURRENT(typ.)	0.8A/220VAC	
	INRUSH CURRENT(typ.)	COLD START 40A/220VAC	
	LEAKAGE CURRENT	<2mA / 220VAC	
OUTPUT	DC VOLTAGE	12V	24V
	RATED CURRENT	8.3A	4.2A
	RATED POWER	100W	
	RIPPLE&NOISE(max.) Note2	600mVp-p	
	VOLTAGE TOLERANCE Note3	±4%	
	LINE REGULATION Note4	±2%	
	LOAD REGULATION Note5	±2%	
	SETUP,RISE TIME(max.)	3000ms,100ms/220VAC at full load	
	HOLD UP TIME(typ.)	5ms/220VAC at full load	
PROTEC-TION	SHORT CIRCUIT	Hiccup mode ; recovers automatically after fault condition is removed	
	OVER LOAD	Over 110% of rating ; recovers automatically after fault condition is removed	
ISOLA-TION	WITHSTAND VOLTAGE	I/P-O/P:AC3KV, I/P-F.G:AC1.5KV, 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.	-40~+70℃ (Refer to "DERATING CURVE"),20~95%RH	
	STORAGE TEMP.&HUMID.	-40~+75℃ ,10~95%RH	
	VIBRATION	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes	
OTHERS	DIMENSION/WEIGHT	159*48.1*36.8mm(L*W*H)/0.44kg	
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. Tolerance : includes set up tolrance, line regulation and load regulation. 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from low 0% to 100% rated load.		

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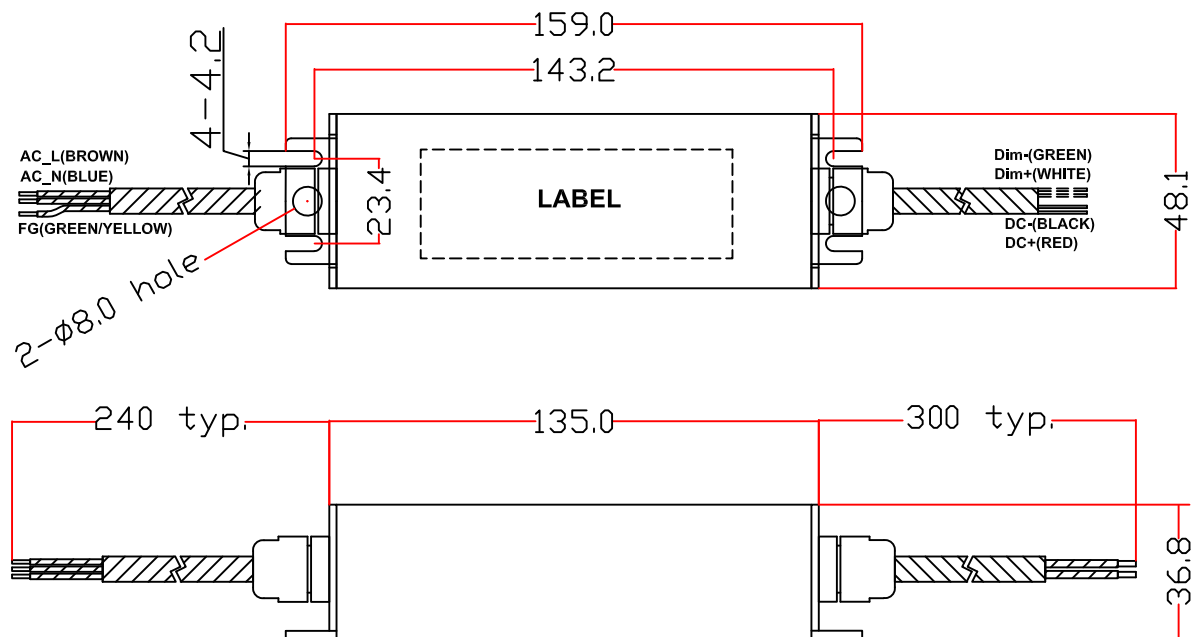
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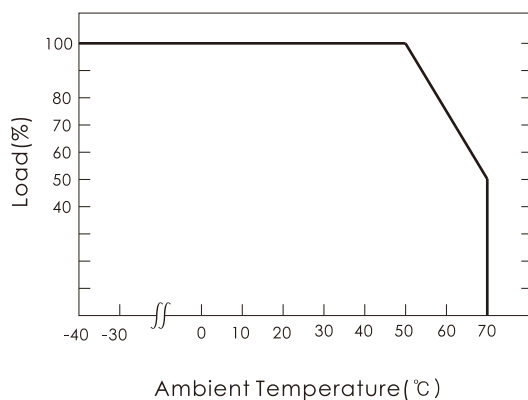
BLOCK DIAGRAM



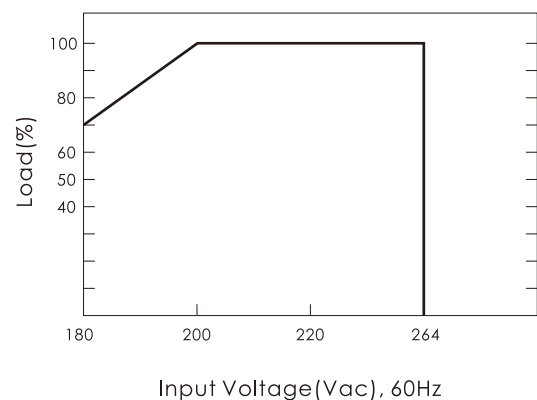
DIMENSIONS(unit:mm)



DERATING CURVE

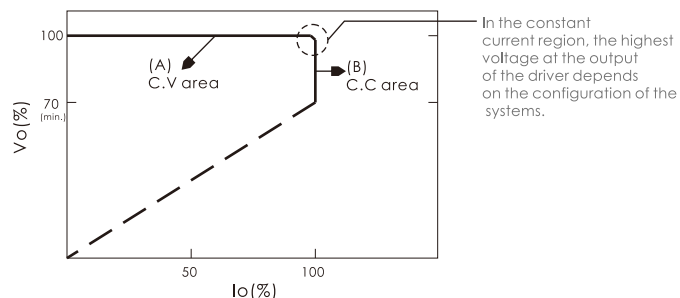


STATIC CHARACTERISTICS



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 provide a peak output current; after the LED turns on, the LED converter will go into C.C. Mode(pattern pending)

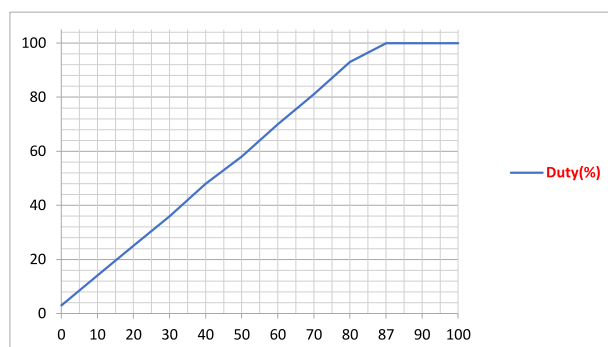


DIMMING OPERATION

- Built-in 3 in 1 dimming function.
Output constant current level can be adjusted through output cable by connecting 10V PWM signal or 0-10Vdc or resistance between DIM+ and DIM-.
- Please do not connect 'DIM-' to 'V-'

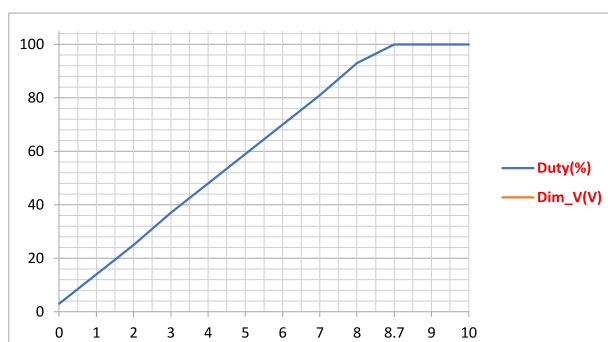
- 10V PWM signal for output current adjustment(typ.):
frequency range:100Hz~3KHz

1KHz PWM Duty (%)	Output PWM Duty : 850Hz (%)
0	3
10	14
20	25
30	36
40	48
50	58
60	70
70	81
80	93
87	100
90	100
100	100



- 0-10V dimming function for output current adjustment(typ.)

0~10V (V)	Output PWM Duty : 850Hz (%)
0	3
1	14
2	25
3	37
4	48
5	59
6	70
7	81
8	93
8.7	100
9	100
10	100



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

RES:100K (Kohm)	Output PWM Duty : 850Hz (%)
0	3
10	16
20	25
30	36
40	47
50	58
60	69
70	80
80	90
86	94
90	100
100	100

