

S.M.P.S

LED Converter

Water Proof Converter

F80CQ2 Series

80W single output with C.C circuit
and PFC function

- **Constant current design(12V:Constant voltage)**
- Built-in PFC function
- Protections:Over current /Over voltage /Short circuit
- IP68 design for outdoor installations
- 100% full load burn-in test
- 3 in 1 dimming function(option:D type)
- Suitable for LED lighting and street lighting applications
- Safety standards : K61347-2-1,K61347-2-13,
EN61347-1,EN61347-2-13
- EMC standards : K00015,K61547,K61000-3-2,3,EN55015
- Metal case

UPF80S48CQ2□

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 0-10Vdc or 10V PWM signal or resistance

IP68    SELV LPS    

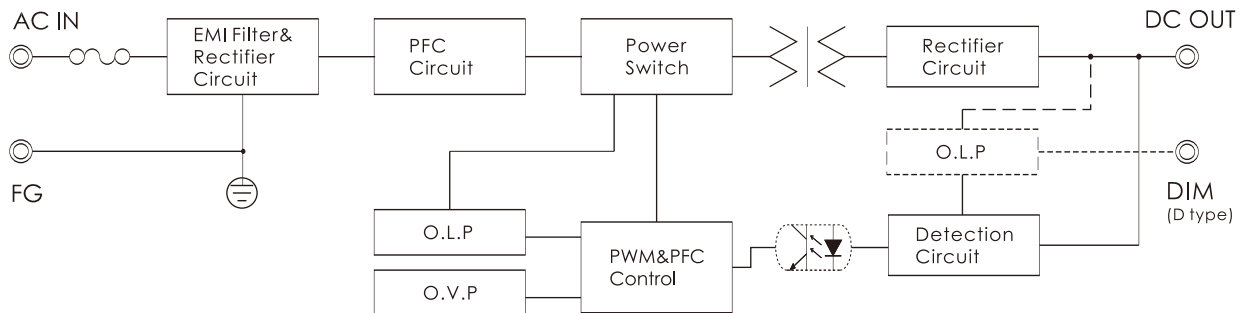
ITEM		UPF80S12CQ2	UPF80S36CQ2□	UPF80S48CQ2□
INPUT	VOLTAGE RANGE	AC90~305V(refer to static characteristics)		
	FREQUENCY RANGE	47~63Hz		
	POWER FACTOR	PF>0.95 at over 60% of rated power		
	EFFICIENCY(typ.)	85%	88%	89%
	AC CURRENT(typ.)	0.45A/230VAC		
	INRUSH CURRENT(typ.)	40A/230VAC		
	LEAKAGE CURRENT	<2.5mA / 230VAC		
OUTPUT	RATED CURRENT	6.66A	2.3A	1.7A
	CONSTANT CURRENT REGION	—	21.6-36V	28.8-48V
	RATED POWER	60W at 100-160VAC , 80W at 160-305VAC		
	CURRENT ADJ. RANGE	—	1.2~2.3A	1~1.7A
	CURRENT ACCURACY	±5%		
	RIPPLE&NOISE(max.) Note2	150mVp-p		
	SETUP,RISE TIME(max.)	3000ms,100ms/230VAC at full load		
	HOLD UP TIME(typ.)	50ms/230VAC at full load		
PROTEC-TION	OVER CURRENT Note3	12V : Over 110% of rating ; recovers automatically after fault condition is removed 24,36,48V : 95~108%		
	SHORT CIRCUIT	Hiccup mode ; recovers automatically after fault condition is removed		
	OVER VOLTAGE	110~140% of rating		
ISOLA-TION	WITHSTAND VOLTAGE	I/P-O/P:AC3.75KV, I/P-F.G:AC2KV, O/P-F.G:AC1.5KV		
	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~+80℃,10~95%RH		
	VIBRATION	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes		
OTHERS	DIMENSION/WEIGHT	184*61.5*37.1mm(L*W*H)/0.64Kg		
NOTE		1. All parameters not specially mentioned are measured at 230vac 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"		

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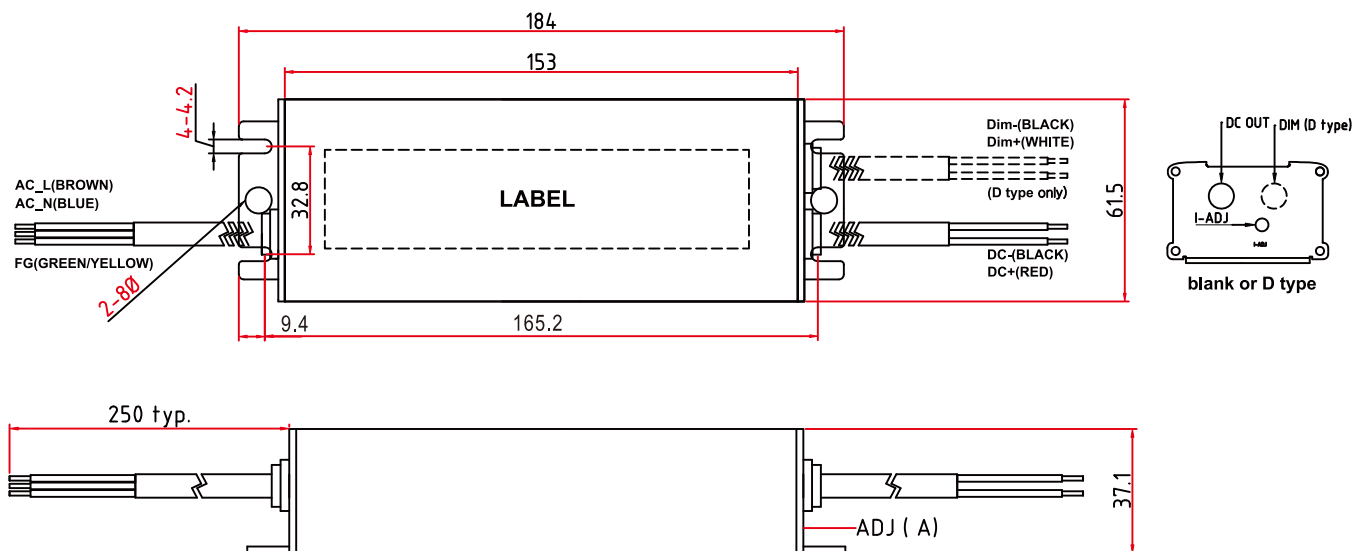
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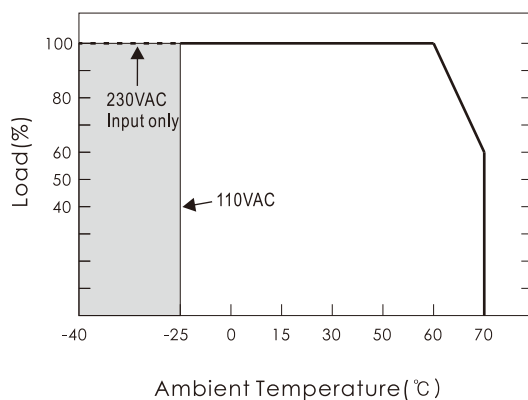
BLOCK DIAGRAM



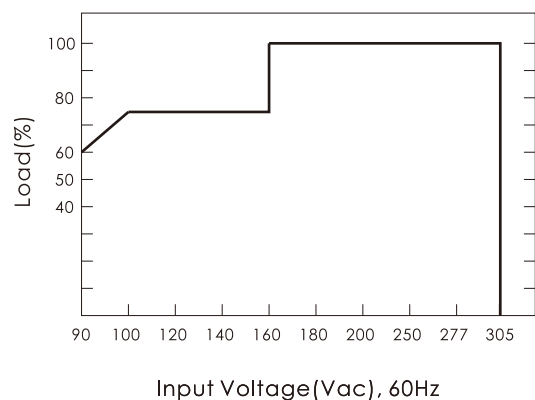
DIMENSIONS(unit:mm)



DERATING CURVE

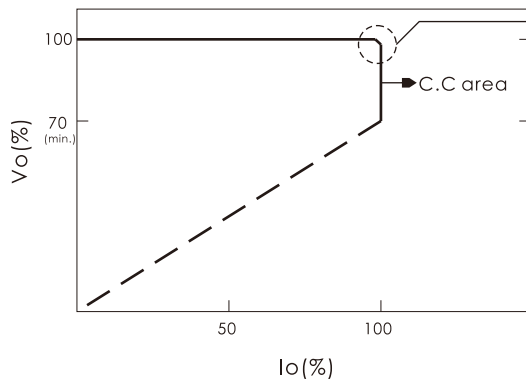


STATIC CHARACTERISTICS



DRIVING METHODS of LED MODULE

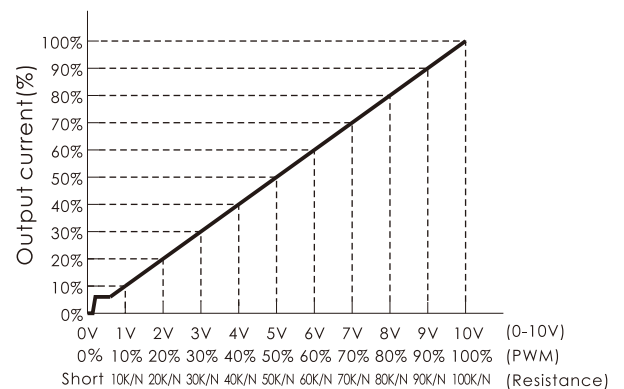
- This series works in constant current mode to directly drive the LEDs



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 0-10Vdc or resistance between DIM+ and DIM-.
- Please do not connect 'DIM-' to 'V-'

DIMMING CURVE



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

Duty Value	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Open
Percent of Rated Current	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~108%

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

Dimming Value	0V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	Open
Percent of Rated Current	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~108%

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

Resistance Value	Single driver	Short	10K Ω	20K Ω	30K Ω	40K Ω	50K Ω	60K Ω	70K Ω	80K Ω	90K Ω	100K Ω	Open
	Multiple driver (N=driver quantity for synchronized dimming operation)	Short	10K Ω /N	20K Ω /N	30K Ω /N	40K Ω /N	50K Ω /N	60K Ω /N	70K Ω /N	80K Ω /N	90K Ω /N	100K Ω /N	---
Percent of Rated Current		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~108%