

S.M.P.S

LED Converter

Water Proof Converter

## F150CQHD-EX Series

150W single output with c.c circuit  
and PFC function



- **Constant current design**
- Built-in PFC function
- Protections: Over current / Over voltage / Short circuit / Over temperature
- IP68 design for outdoor installations
- 100% full load burn-in test
- 3 in 1 dimming function
- Suitable for LED lighting and street lighting applications
- Safety standards : EN61347-1, EN61347-2-13, J61347-1 61347-2-13, K61347-2-1, K61347-2-13
- EMC standards : EN55015, EN61000-3-2, 3, EN61000-4-2, 3, 4, 5, 6, 11 J55015, K00015, K61547, K61000-4-2, 3, 4, 5, 6, 11
- Metal case

IP68       SELV      CB CE

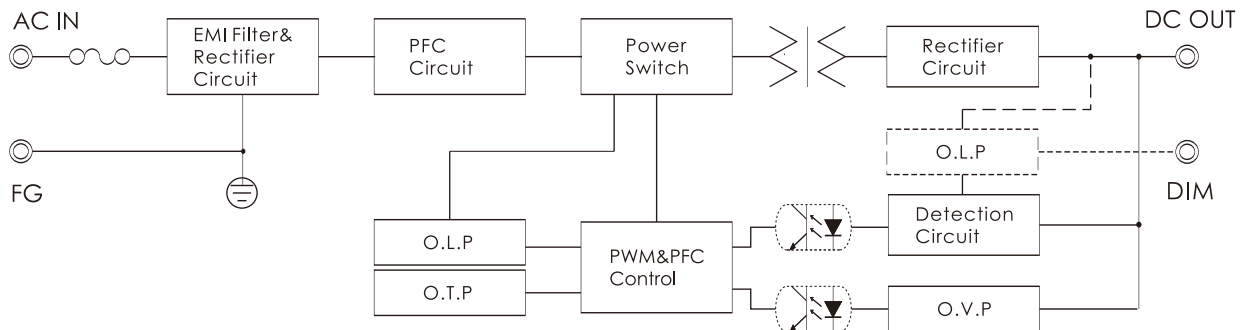
ITEM		UPF150S36CQHD-EX
INPUT	VOLTAGE RANGE	AC90~305V
	FREQUENCY RANGE	47~63Hz
	POWER FACTOR	PF>0.95 at over 60% of rated power
	EFFICIENCY(typ.)	91%
	AC CURRENT(typ.)	1.6A/115VAC (typ) 0.8A/230VAC (typ)
	INRUSH CURRENT(typ.)	COLD START 40A/230VAC
	LEAKAGE CURRENT	<2.5mA / 230VAC
OUTPUT	RATED CURRENT	4.2A
	CONSTANT CURRENT REGION	18-36V
	RATED POWER	150W
	VOLTAGE ADJ. RANGE	32~40V
	CURRENT ADJ. RANGE	2.5~4.2A
	CURRENT ACCURACY	±5%
	RIPPLE&NOISE(max.) Note2	150mVp-p
	SETUP,RISE TIME(max.)	3000ms,100ms/115VAC at full load 3000ms,100ms/230VAC at full load
	HOLD UP TIME(typ.)	50ms/115VAC at full load 50ms/230VAC at full load
PROTEC-TION	OVER CURRENT Note3	Over 95~108% of rating ; recovers automatically after fault condition is removed
	SHORT CIRCUIT	Hiccup mode ; recovers automatically after fault condition is removed
	OVER VOLTAGE	115~140% of rating
	OVER TEMPERATURE	105±10℃ (temp. Sensor) ; 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: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	231*68*38.8mm(L*W*H)/1.05Kg
NOTE	<p>1. All parameters not specially mentioned are measured at 220Vac input, rated load and 25℃ of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with 0.1 uF &amp; 47uF parallel capacitor.</p> <p>3. Refer to "DRIVING METHODS of LED MODULE"</p>	

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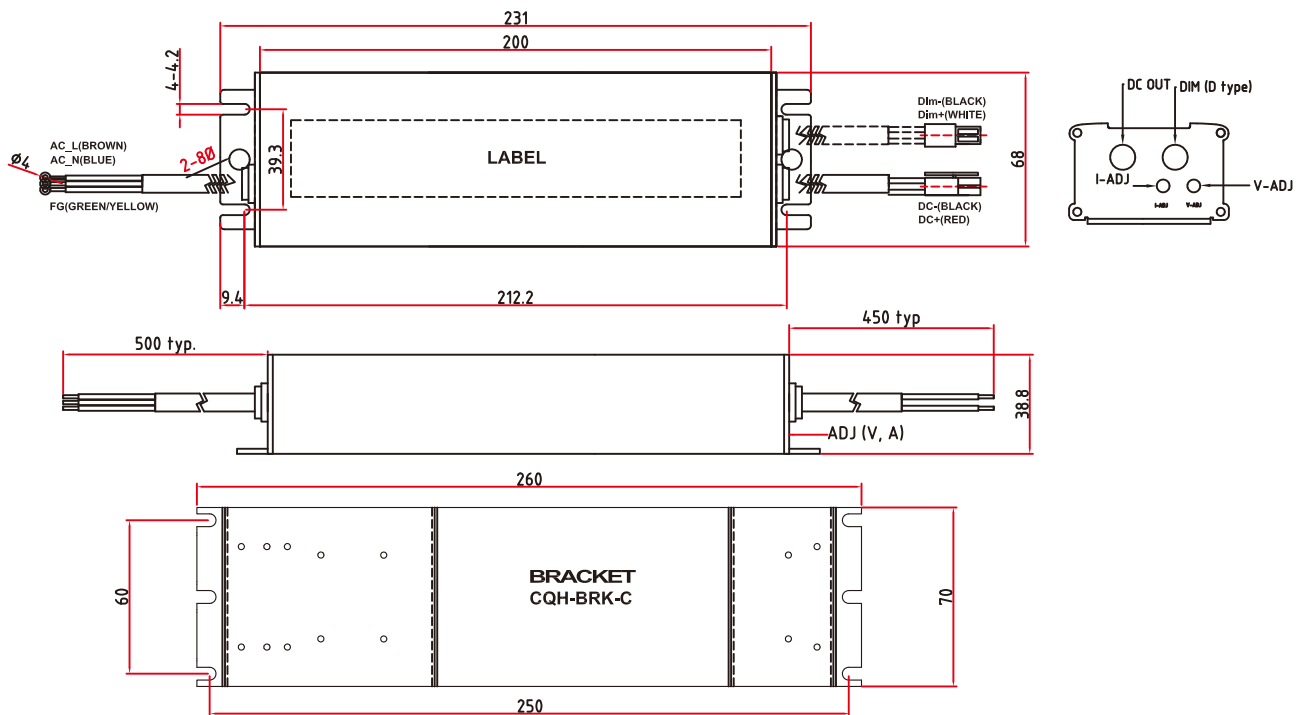
# LED Converter

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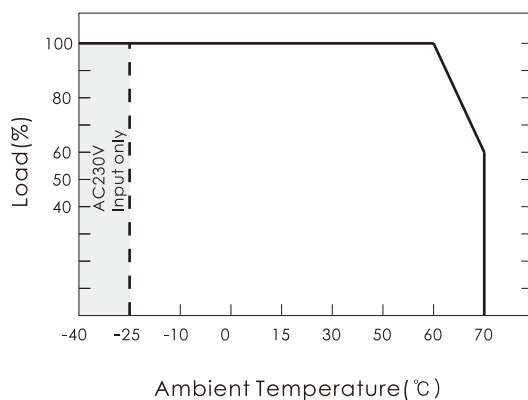
## BLOCK DIAGRAM



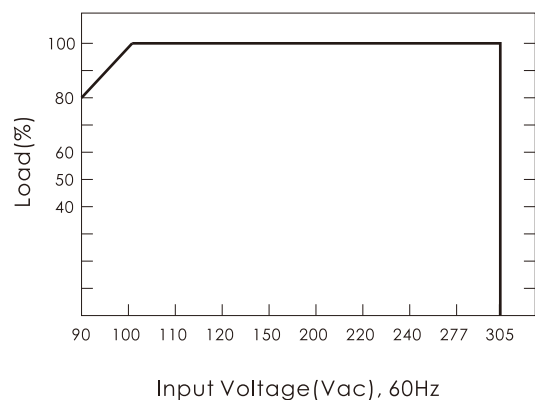
## DIMENSIONS(unit:mm)



## DERATING CURVE

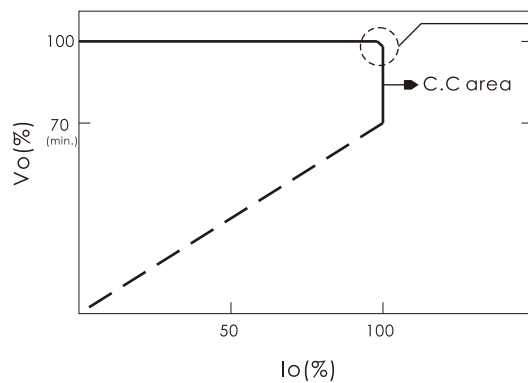


## STATIC CHARACTERISTICS



## DRIVING METHODS of LED MODULE

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



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

## 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 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%