

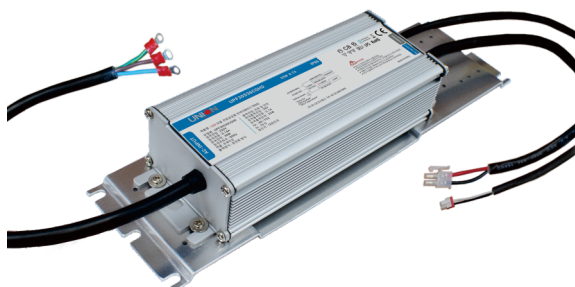
S.M.P.S

LED Converter

Water Proof Converter

## F30CQHD-EX Series

25W single output with c.c circuit  
and PFC function



- **Constant current design(C.C. mode)**
- 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
- Suitable for LED lighting and street lighting applications
- Safety standards : K61347-1,K61347-2-13  
J61347-1,61347-2-13
- EMC standards : K00015,K61547/J55015
- Metal case

IP68     SELV    CB CE

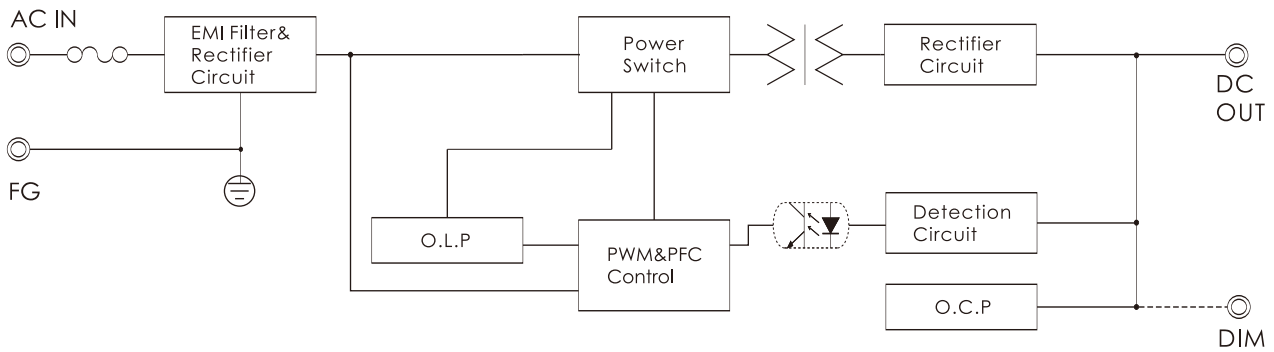
ITEM		UPF30S36CQHD-EX
INPUT	VOLTAGE RANGE	AC180~264V
	FREQUENCY RANGE	47~63Hz
	POWER FACTOR	PF>0.9 at over 60% of rated power
	EFFICIENCY(typ.)	85%
	AC CURRENT(typ.)	0.14A/230VAC (typ)
	INRUSH CURRENT(typ.)	COLD START 5A/230VAC
	LEAKAGE CURRENT	<2.5mA / 230VAC
OUTPUT	RATED CURRENT	0.7A
	CONSTANT CURRENT REGION	26~36V
	RATED POWER	25W
	VOLTAGE ADJ. RANGE	32~40V
	CURRENT ADJ. RANGE	0.5~1.0A
	CURRENT ACCURACY	±5%
	RIPPLE&NOISE(max.) Note2	2.0Vp-p
	SETUP,RISE TIME(max.)	3000ms,100ms/230VAC at full load
PROTEC-TION	OVER CURRENT Note3	95~108%
	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: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	174*61.5*36.8mm(L*W*H)/0.66Kg
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 pare-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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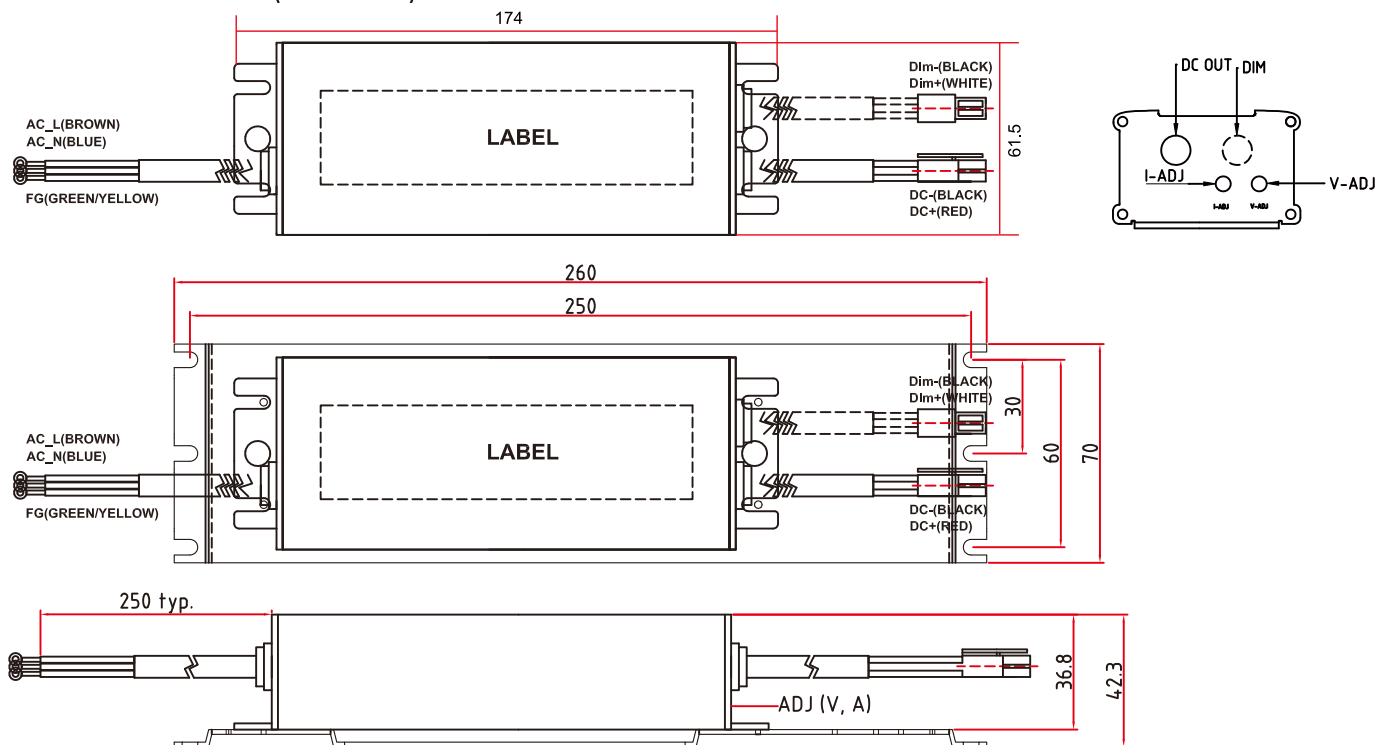
# LED Converter

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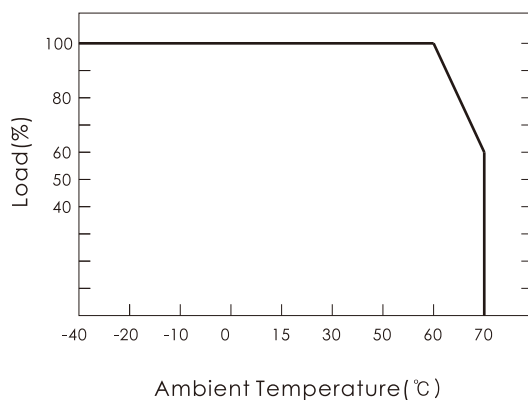
## BLOCK DIAGRAM



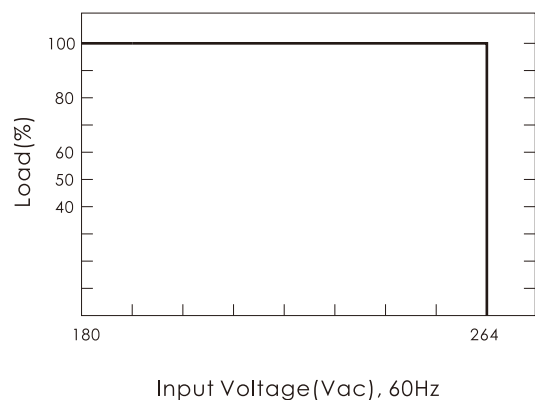
## DIMENSIONS(unit:mm)



## DERATING CURVE



## STATIC CHARACTERISTICS



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## 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	10K $\Omega$	20K $\Omega$	30K $\Omega$	40K $\Omega$	50K $\Omega$	60K $\Omega$	70K $\Omega$	80K $\Omega$	90K $\Omega$	100K $\Omega$	Open
	Multiple driver (N=driver quantity for synchronized dimming operation)	10K $\Omega$ /N	20K $\Omega$ /N	30K $\Omega$ /N	40K $\Omega$ /N	50K $\Omega$ /N	60K $\Omega$ /N	70K $\Omega$ /N	80K $\Omega$ /N	90K $\Omega$ /N	100K $\Omega$ /N	---
Percent of Rated Current		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~108%