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

F200CQHF Series

200W single output with c.v+c.c circuit and PFC function

- Constant voltage or current design(C.V+C.C. Mode)
- Built-in PFC function
- Wide input range
- Protections : Over current /Short circuit/Over temperature
- 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 : K61347-1,K61347-2-13 ,J61347-1, J61347-2-13
- EMC standards : K00015,K61547,J55015
- Metal case

UPF200S36CQHF□

Blank : IP68 rated. Cable for I/O connection.
Output voltage and 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

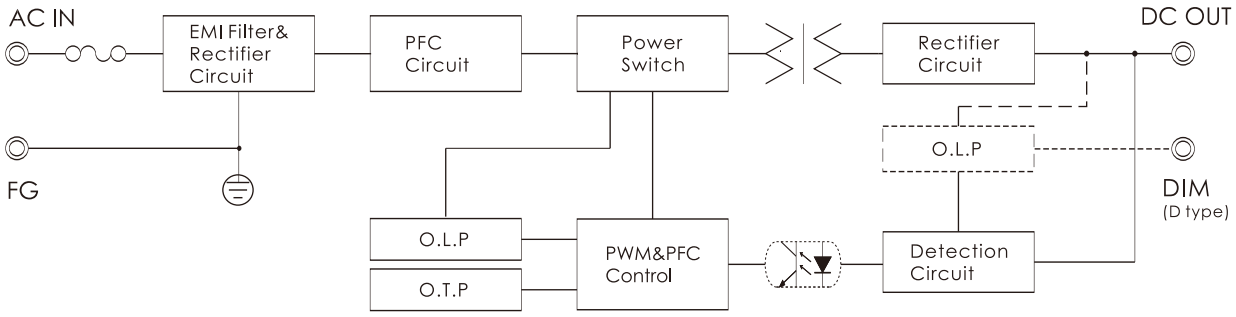
IP68 SELV

ITEM		UPF200S36CQHF□	UPF200S48CQHF□
INPUT	VOLTAGE RANGE	AC90~305V	
	FREQUENCY RANGE	47~63Hz	
	POWER FACTOR	PF>0.95 at over 60% of rated power	
	EFFICIENCY(typ.)	92%	93%
	AC CURRENT(typ.)	1.8A/115VAC(typ) 0.9A/230VAC(typ)	
	INRUSH CURRENT(typ.)	COLD START 40A/230VAC	
	LEAKAGE CURRENT	<2.5mA / 230VAC	
OUTPUT	RATED CURRENT RATED POWER	160VAC-305VAC	
		5.6A / 200W	4.2A / 200W
		100VAC-160VAC	
		5.2A / 185W	3.9A / 185W
	CONSTANT CURRENT REGION	24-36V	36-48V
	VOLTAGE ADJ. RANGE	33~40V	42~53V
	CURRENT ADJ. RANGE	3.2~5.6A	2.4~4.2A
	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	95~108%	
	SHORT CIRCUIT	Hiccup mode ; recovers automatically after fault condition is removed	
	OVER TEMPERATURE	100±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	263*68*38.8mm(L*W*H)/1.15Kg	

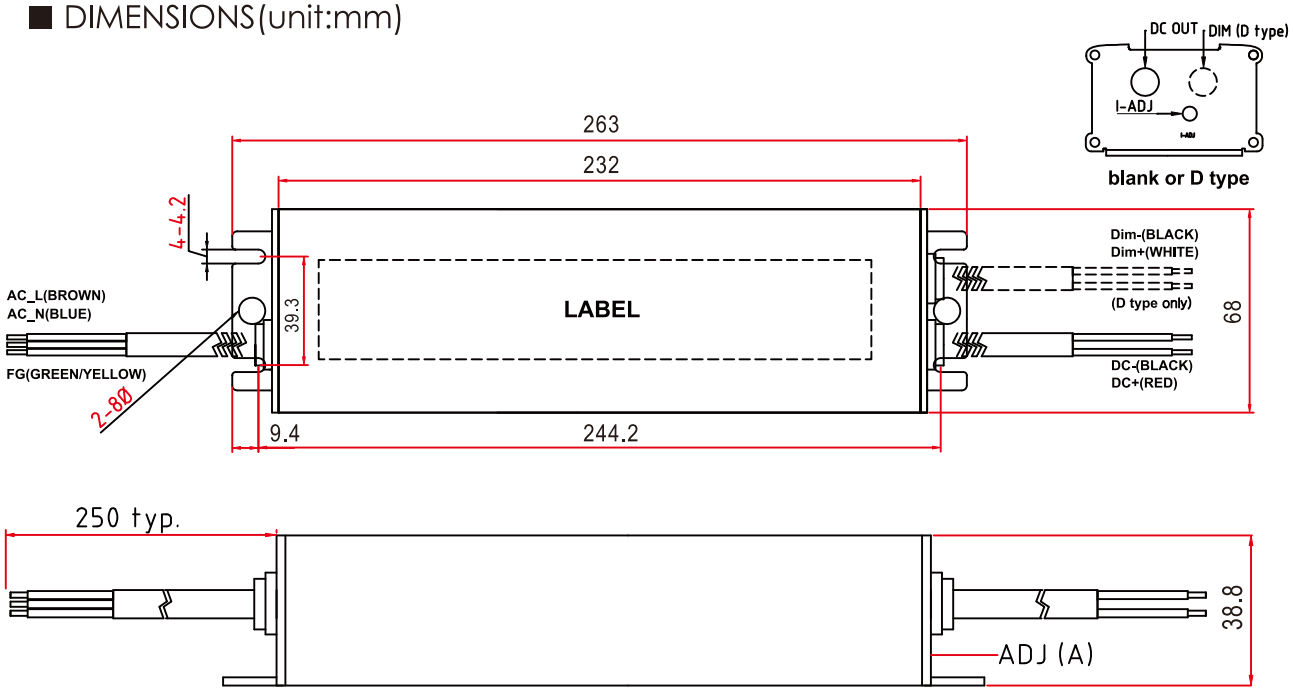
NOTE

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"

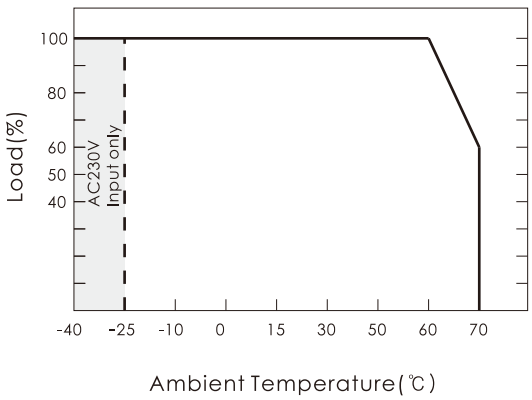
■ BLOCK DIAGRAM



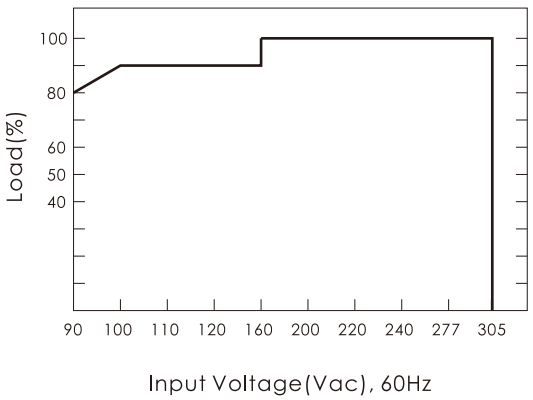
■ DIMENSIONS(unit:mm)



■ DERATING CURVE

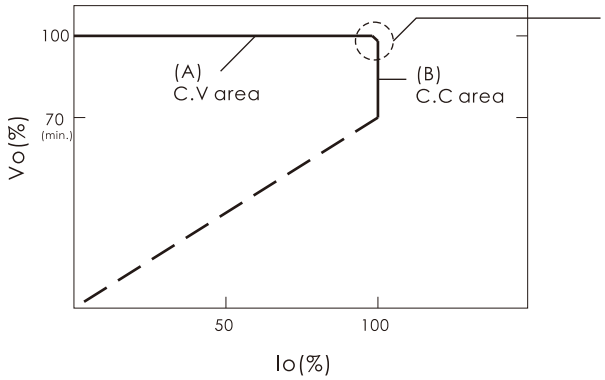


■ STATIC CHARACTERISTICS



■ 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%