



■ **Features**

- Input voltage: 90-305VAC
- Built-in active PFC function: 0.99 Typ.
- Low THD: 10% Typ.
- High efficiency: 93% Typ.
- IP67 design for indoor or outdoor installations
- High surge immunity
- Support 5V PWM dimming function
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations



■ **Specification**

Model																				
(MU150HXXXAQ_STB) (1)		035	045	053	070	085	105	120	140	150	175	185	210	245	280	300	315	350	420	500
(MU150HXXXAQ_STB/II) (2)																				
Input	Efficiency(120Vac)(Typ.) _{Note.1}	90.0%	90.0%	90.0%	90.0%	90.0%	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%	88.0%	88.0%	88.0%	88.0%	88.0%
	Efficiency(230Vac)(Typ.) _{Note.1}	93.0%	93.0%	93.0%	93.0%	93.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%	91.0%	91.0%	91.0%	91.0%	91.0%
	Voltage Range (V) _{Note.2}	90 ~ 305Vac, OR 127~ 430Vdc (Derating may be need under low inputs, Refer to 'Derating Curve')																		
	Voltage Rate (V) _{Note.2}	100Vac-277Vac																		
	Frequency Range (Hz)	47~63																		
	Power Factor(Typ.)	0.99 (Typ.) with 80%~100% load,at 120Vac																		
		0.96 (Typ.) with 80%~100% load,at 230Vac																		
		>0.9 with 80%~100% load,at 277Vac																		
	THD(Typ.)	<10% at 220VAC input 50Hz,80%~100% load																		
		<15% at 110VAC and 277VAC input 60Hz,80%~100% load																		
AC Current(Typ.)	1.8A at 100VAC input, 0.9A at 230VAC																			
Inrush Current(Max.)	65A at 230Vac input 25℃ Cold Start (time wide=500uS, measured at 50% Ipeak,Not applicable for the inrush current to Noise Filter for less than 0.2ms)																			
Leakage Current(Max.)	0.75mA at 277VAC/60Hz input for class I; 0.5mA at 277VAC/60Hz input for classII																			
Output	Voltage range (V)	214-428	167-333	142-283	107-214	88-176	71-142	63-125	54-107	50-100	43-85	41-81	36-71	31-61	27-53	25-50	24-48	21-42	18-36	15-30
	Rated Current(mA)	350	450	530	700	850	1050	1200	1400	1500	1750	1850	2100	2450	2800	3000	3150	3500	4200	5000
	Rated Power (W)	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
	Ripple&Noise Current(Typ.)	≤10%((PK-AV) /AV) with LED default mode and full load)																		
	Current Tolerance	±5%																		
	Line Regulation	±1%																		
	Load Regulation	±3%																		
	Current ADJ. Range	-																		
	Turn on delay Time	<1.2s, at 120Vac; <1s, at 277Vac																		
Protection	Over Voltage(V)	599	466	396	300	246	199	175	150	140	119	113	99	85	74	70	67	59	50	42
	Short Circuit	Hiccup mode.The power supply shall be self-recovery when the fault is removed.																		
	Over temperature	Protection type: Constant current limiting.																		
Environment	Operating Temp.	-40~+70℃(Refer to 'Derating Curve')																		
	Tc	90℃ max																		
	Operating Humidity	20~95%RH																		
	Storage Temp., Humidity	-40~+80℃ , 10-95%RH																		
	Temp. Coefficient	0.03%/℃ (0~50℃)																		
	Vibration	10-500Hz,5G 12min/cycle , period for 72min each along X、Y、Z axes																		
Safety & EMC	Safety Standard	UL8750, UL1012, CAN/CSA-C22.2No.107.1-01,EN61347-1, EN61347-2-13 ,EN60598-1,EN62384,GB19510.1,GB19510.14,GB7000.1																		
	Withstand Voltage	I/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.5KV for class I;I/P-O/P:3.75KVAC I/P-Case:3.75KV O/P-Case:1.5KV for class II																		
	Isolation Resistance	I/P-O/P ,I/P-FG,O/P-FG:100M Ohms/500VDC/25℃/70%RH for class I;I/P-O/P ,I/P-Case,O/P-Case:100M Ohms/500VDC/25℃/70%RH for class II																		
	EMC Emission	EN55015/FCC Part 15 Class B , EN61000-3-2 Class C , EN61000-3-3																		
	EMC Immunity	00-4-2,3,4,5,6,8,11 (Surge L,N-FG 6KV , L-N 4KV) , EN61547 for class I;EN61000-4-2,3,4,5,6,8,11 (Surge L,N-Case 4KV , L-N 4KV) , EN61547 for class II																		
Others	MTBF	300,000 Hours,measured at full load,25℃ ambient temperature																		
	Lifetime	50,000 Hours at Tc 75℃(Refer to"Life Time VS. Tcase (Ref.)")																		
	Dimension	221 x 67.5 x 40 (mm) (LxWxH)																		
	Weight	1.05kg(Typ.)																		

Note.1: Measured at full load and steady-state temperature in 25℃ ambient(Efficiency will be about 2% lower if measured immediately after startup); Note. 2: Derating may be needed under low input voltages , Please Refer to 'Derating Curve' ; Note. 3: All parameters NOT specially mentioned are measured at 230VAC input , rated load and 25℃ of ambient temperature ;

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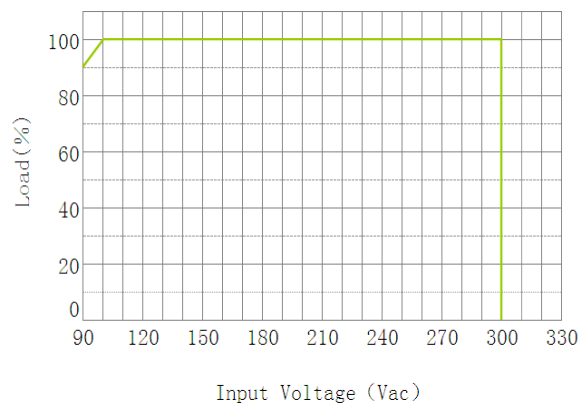
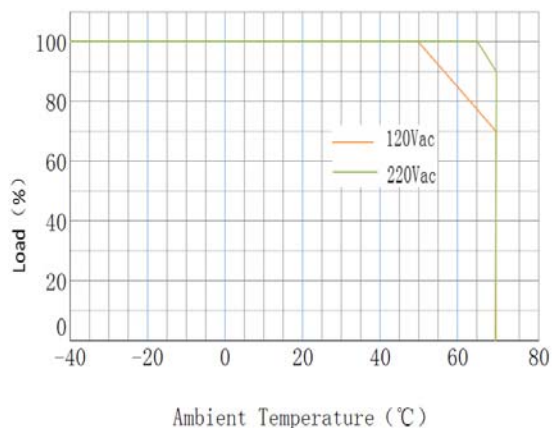
Page 1 of 4

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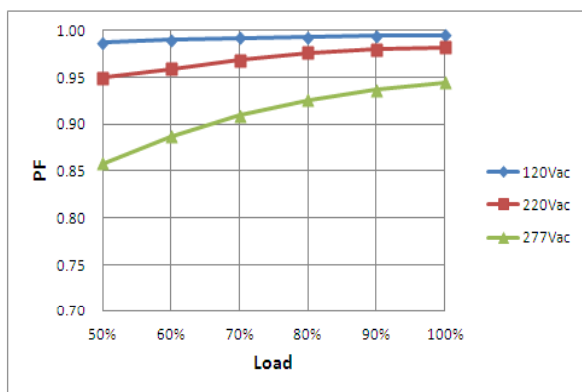
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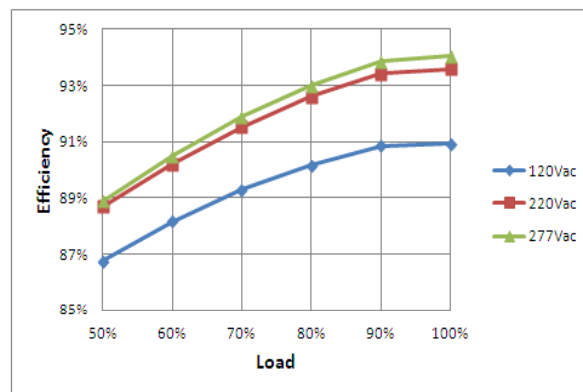
Derating Curve



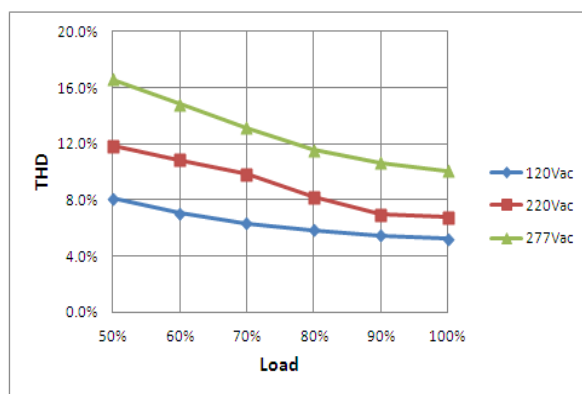
Power Factor VS. Load Curve



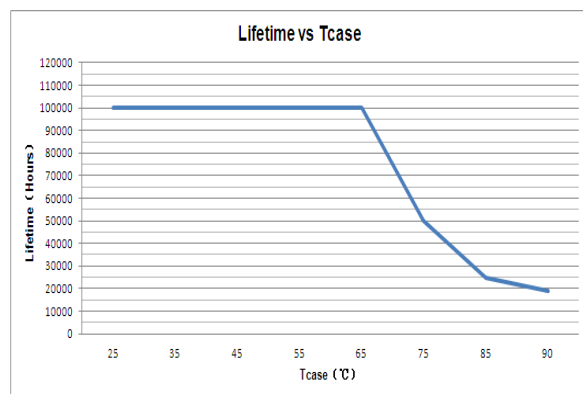
Efficiency VS. Load Curve



THD Curve

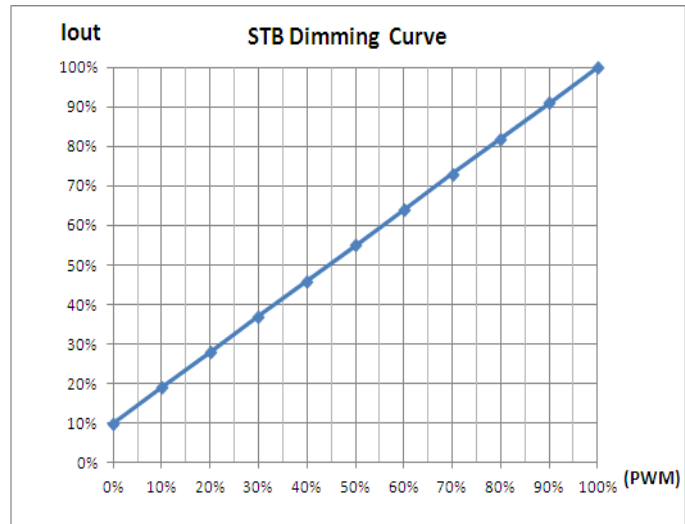
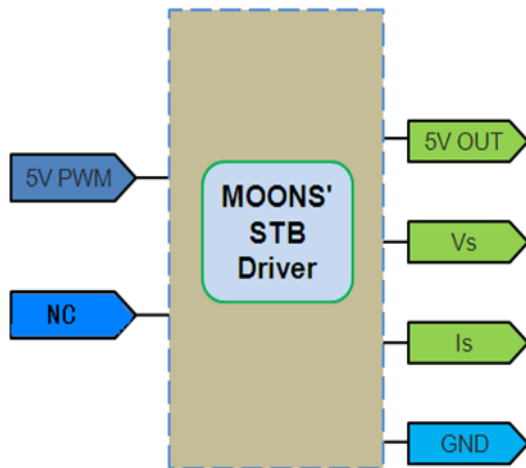


Life Time VS. Tcase (Ref.)



The dimmer control may be operated from an input signal of 5V PWM(frequency: 500Hz~5kHz,duty cycle: 0%~100%). Recommended implementations are provided below.

STB dimming connection diagram and dimming curve



Dimming Interface Description

STB/DIMMING

GND ① NC ⑥

5V OUT ② Vs ⑤

Is ③ ④ 5V PWM

Pin	Name	Description
1	GND	DC Ground
2	5V OUT	DC Supply Output
3	Is	Current feedback
4	5V PWM	PWM input pin
5	Vs	Voltage feedback
6	NC	NC

Notes:

MOONS' STB Driver dimming interface with Standby controller (It is recommended to use MOONS' standby controller, using other standby controller may be not compatible and leads to flicker), you can achieve the following functions:

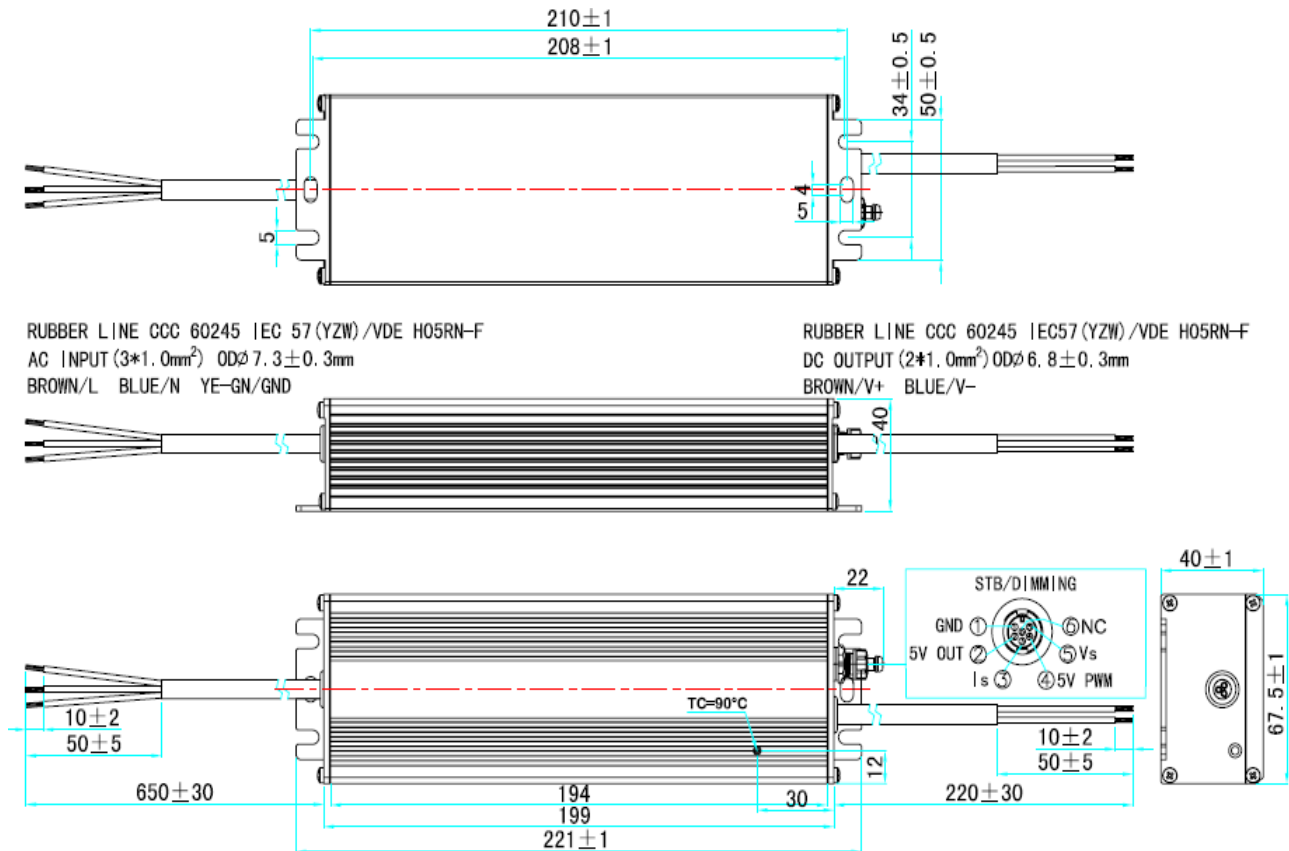
- A、Dimming levels: 10% to 100%, continuously adjustable.
- B、Status query: output voltage/current status query.
- C、Output: 5V 300mA.

Dimming Parameter (On secondary side)

Parameter	Min.	Typ.	Max.	Notes
5V output voltage	4.75V	5V	5.25V	
5V output source current	-	300 mA	-	
The voltage on the 5V PWM input pin	3.0V	3.3V	5.25V	
Source current on the 5V PWM input pin	-	1mA	2mA	
frequency on the 5V PWM input pin	500Hz	1KHz	5kHz	
Duty cycle on the 5V PWM input pin	0%	-	100%	
voltage on the Vs output pin	0V	2.0V	2.4V	
voltage on the Is output pin	0V	2.0V	2.4V	

■ Mechanical Specification

1. Dimensions (Unit: mm)



RoHS Compliance:

Our products comply with the European Directive 2002/95/EC, calling for the elimination of lead and other hazardous substances from electronic products.

2. Terminal wire Type

Products	AC Input			DC output		
	Wire Type	Assignment	Description	Wire Type	Assignment	Description
ENEC/CE approval for class II	RUBBER CCC+VDE 60245 IEC57 YZW/H05RN-F	BROWN/L	2*1.0mm ² ODφ 6.8± 0.3mm	RUBBER CCC+VDE 60245 IEC57 YZW/H05RN-F	Brown/+	2*1.0mm ² ODφ 6.8± 0.3mm
		BLUE/N			Blue/-	
UL approval	UL SJTW PVC	BLACK/L	3*AWG#18	UL SJTW PVC	RED/+	2*AWG#18
		WHITE/N			BLUE/-	
		GREEN/GN				
PSE approval	PSE HVCTF/VCTF/VCTFK PVC	BLACK/L	3*0.75mm ² ODφ 6.8± 0.3mm	PSE HVCTF/VCTF/VCTFK PVC	WHITE/+	2*0.75mm ² ODφ 6.7± 0.3mm
		WHITE/N			BLACK/-	
		YE-GN/GND				
CCC/CB/CE approval	RUBBER CCC+VDE 60245 IEC57 YZW/H05RN-F	BROWN/L	3*1.0mm ² ODφ 7.3± 0.3mm	RUBBER CCC+VDE 60245 IEC57 YZW/H05RN-F	Brown/+	2*1.0mm ² ODφ 6.8± 0.3mm
		BLUE/N			Blue/-	
		YE-GN/GND				

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Page 4 of 4

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