



- **Features**
- Input voltage: 90-305VAC
 - Built-in active PFC function: 0.99 Typ.
 - Low THD: 10% Typ.
 - High efficiency: 91% 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 (MU100HXXXAQ_STB)		035	045	053	070	085	105	120	140	175	210	245	280	300	315	350	420
Input	Efficiency(120Vac)(Typ.) _{Note.1}	89%	89%	89%	89%	88%	88%	88%	88%	88%	87%	87%	87%	86%	86%	86%	86%
	Efficiency(230Vac)(Typ.) _{Note.1}	91%	91%	91%	91%	90%	90%	90%	90%	90%	89%	89%	89%	88%	88%	88%	88%
	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.)	<15% (typical), at 100~277Vac input, with 80%~100% load conditions															
		<10% (typical), at 220Vac/50Hz input, with 80%~100% load conditions															
Output	AC Current(Typ.)	1.2A at 100VAC input, 0.6A at 230VAC															
	Inrush Current(Max.)	A at 230Vac input 25°C Cold Start (time wide=500uS, measured at 50% Ipeak,Not applicable for the inrush current to Noise Filter for less than 0.2m															
	Leakage Current(Max.)	1mA at 277Vac/60Hz															
	Voltage range (V)	143~286	111~222	94~188	71~143	59~118	48~95	42~83	36~71	27~55	23~46	19~39	17~34	17~33	15~30.5	13~27	12~23
	Rated Current(mA)	350	450	530	700	850	1050	1200	1400	1750	2100	2450	2800	3000	3150	3500	4200
	Rated Power (W)	100	100	100	100	100	100	100	100	96	96	96	96	100	96	96	96
	Ripple&Noise Current(Typ.)	≤30%((PK-AV) /AV) with LED default mode and full load)															
	Current Tolerance	±5%															
	Line Regulation	±1%															
	Load Regulation	±3%															
Protection	Current ADJ. Range	-															
	Turn on delay Time	<1.2s, at 120Vac; <0.6s, at 277Vac															
	Over Voltage(V)	373	289	230	186	143	124	103	92	72	60	51	44	43	40	35	30
	Over Current	Protection type: Voltage limiting.output will not exceed the upper limit voltage , recovers automatically after fault condition is removed.															
	Short Circuit	Protection type: Constant current limiting.															
Environment	Over temperature	Protection type: Hiccup mode. recovers automatically after short is removed.															
	Operating Temp.	When the Tc of PSU rise to 90~110°C,Decreases output current,returning to normal after over temperature is removed.															
	Tc	-40~+70°C(Refer to 'Derating Curve')															
	Operating Humidity	90°C max															
	Storage Temp., Humidity	10~100%RH															
Safety & EMC	Temp. Coefficient	-40~+80°C , 5-100%RH															
	Vibration	0.03%/°C (0~50°C)															
	Safety Standard	10-500Hz,5G 12min/cycle , period for 72min each along X、Y、Z axes															
	Withstand Voltage	UL8750, UL1012, UL1310 Class 2,CSA-C22.2 No. 107.1, CSA C22.2 NO. 223-M91 Class 2,EN61347-1, EN61347-2-13															
	Isolation Resistance	I/P-O/P:3.75KVac I/P-FG:1.875KV O/P-FG:1.5KV															
Others	EMC Emission	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25°C/70%RH															
	EMC Immunity	EN55015/FCC Part 15 , EN61000-3-2 Class C, EN61000-3-3															
	MTBF	EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 6KV, L-N 4KV) , EN61547															
	Lifetime	300,000 Hours,measured at full load,25°C ambient temperature															
	Dimension	50,000 Hours at Tc 75°C(Refer to"Life Time VS. Tcase (Ref.)")															
Weight	Weight	187 x 67.5 x 40 (mm) (LxWxH)															
		0.85kg															

Note.1: Measured at full load and steady-state temperature in 25°C 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°C of ambient temperature ;

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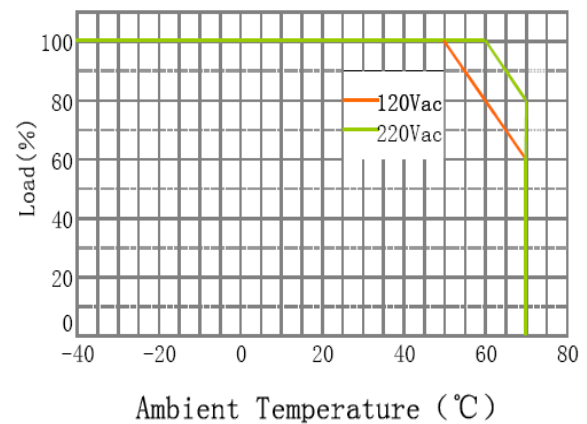
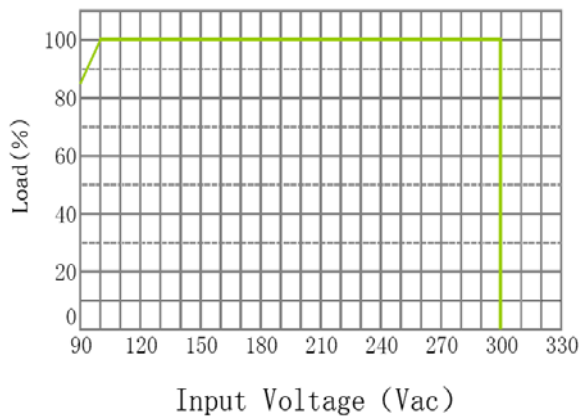
Page 1 of 4

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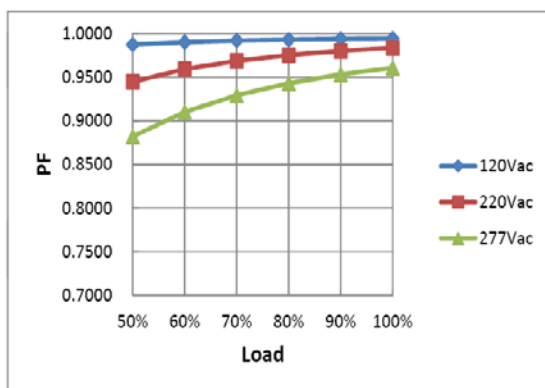
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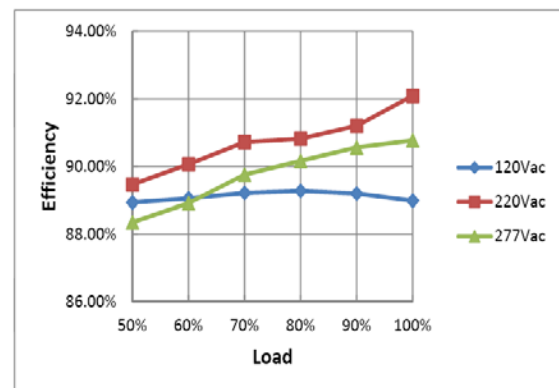
Derating Curve



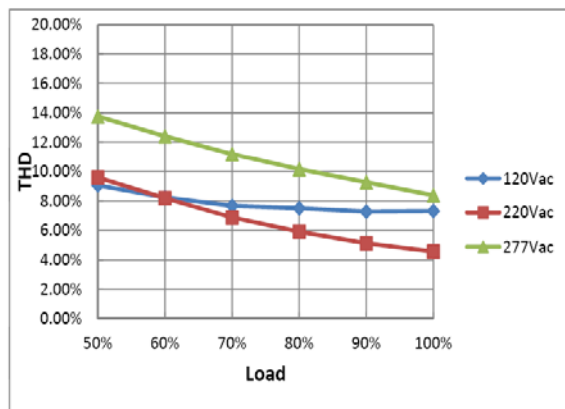
Power Factor VS. Load Curve



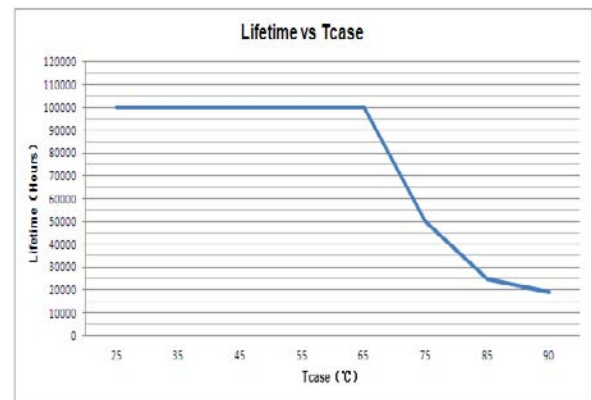
Efficiency VS. Load Curve



THD Curve

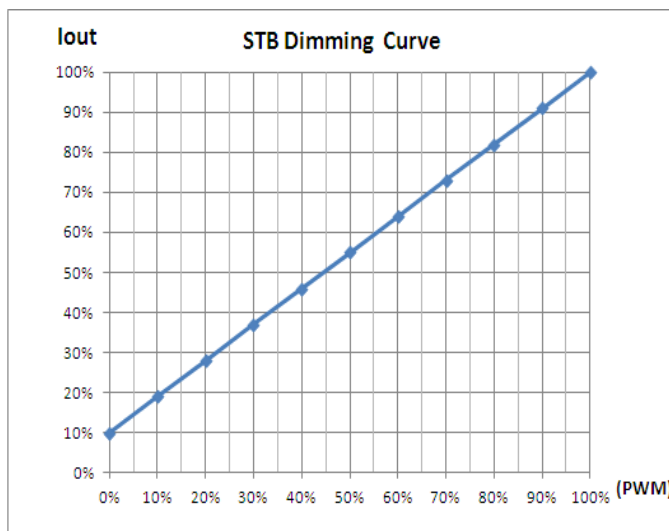
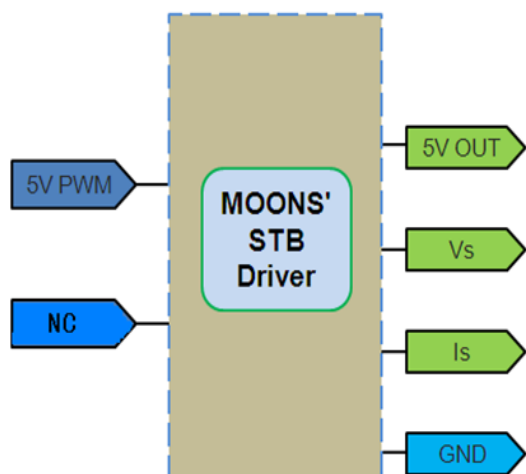


Life Time VS. Tcase (Ref.)



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			
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:

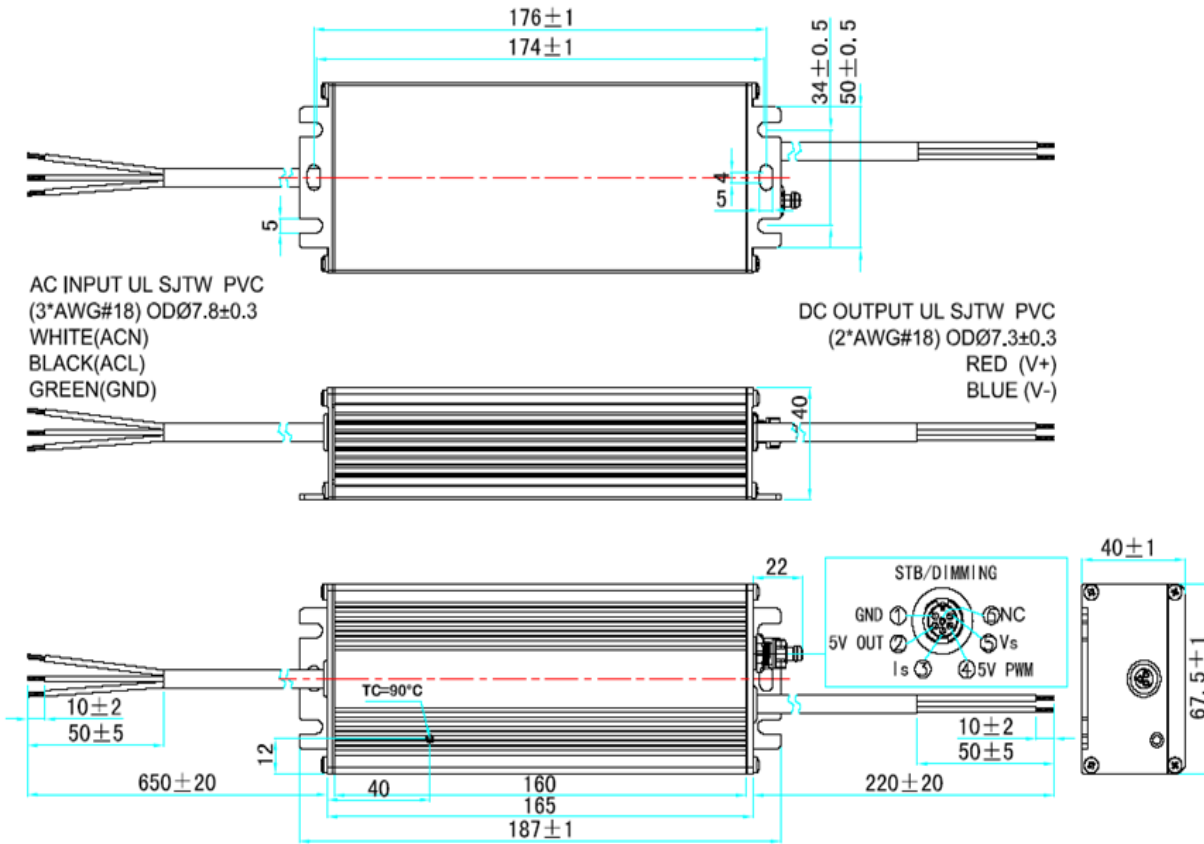
- A、Dimming levels: 10% to 100%, continuously adjustable.
- B、Status query: output voltage/current status query.
- C、Output: 5V 300mA.

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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