■ 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 (MU120HXXXAQ_STB)		035	045	053	070	085	105	120	140	175	210	245	280	300	315	350	420	500
Input	Efficiency(120Vac)(Typ.)Note.1	89%	89%	89%	89%	88%	88%	88%	88%	88%	87%	87%	87%	86%	86%	86%	85%	85%
	Efficiency(230Vac)(Typ.)Note.1	91%	91%	91%	91%	90%	90%	90%	90%	90%	89%	89%	89%	88%	88%	88%	87%	87%
	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(Typ.),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																
	AC Current(Typ.)	1.4A at 100VAC input, 0.7A at 230VAC																
	Inrush Current(Max.)	15A 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.)	1mA at 277Vac/60Hz																
Output	Voltage range (V)	171~343	133~267	113~227	86~171	70~141	57~114	50~100	43~86	34~69	29~57	24~48	21~43	20~40	19~38	17~34	14~28	12~24
	Rated Current(mA)	350	450	530	700	850	1050	1200	1400	1750	2100	2450	2800	3000	3150	3500	4200	5000
	Rated Power (W)	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
	Ripple&Noise Current(Typ.)	≤30%((PK-AV typical) /AV) with LED default mode and full load)																
	Current Tolerance	±5%																
	Line Regulation	±3%																
	Load Regulation	±3%																
	Current ADJ. Range	-																
	Turn on delay Time	<1.2s, at 120Vac; <1s, at 277Vac																
Protection	Over Voltage(V)	446	347	280	222	180	148	134	112	90	74	62	56	52	49	44	36	31
		Protection type : constant current limiting, recovers automatically after fault condition is removed.																
	Over Current	90%~110% Protection type : constant current limiting, recovers automatically after fault condition is removed.																
	Short Circuit	Constant current limiting, recovers automatically after fault condition is removed.																
	Over temperature	When the Tc of PSU rise to 90~110℃,Decreases output current,returning to normal after over temperature is removed.																
Environment	Operating Temp.	-40~+70℃(Refer to 'Derating Curve')																
	Tc	90℃ max																
	Operating Humidity	10~100%RH																
	Storage Temp., Humidity	-40~+80℃，5-100%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,EN61347-1, EN61347-2-13																
	Withstand Voltage	I/P-O/P:3.75KVac I/P-FG:1.875KV O/P-FG:1.5KV																
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500Vdc/25℃/70%RH																
	EMC Emission	EN55015/FCC Part 15, EN61000-3-2 Class C, EN61000-3-3																
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11（Surge L,N-FG 6KV，L-N 4KV），EN61547																
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	202 x 67.5 x 40 (mm) (LxWxH)																
	Weight	0.95kg																

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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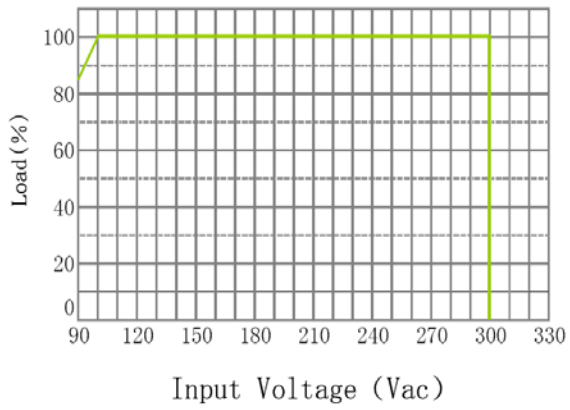
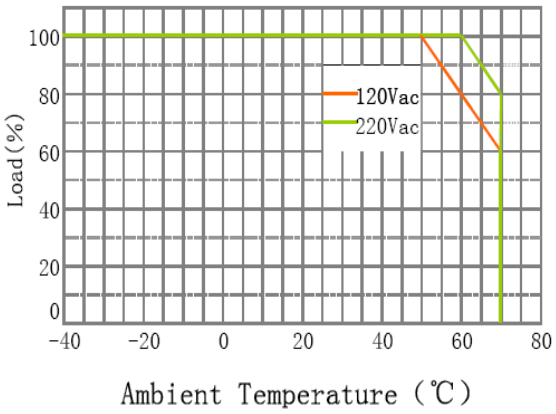
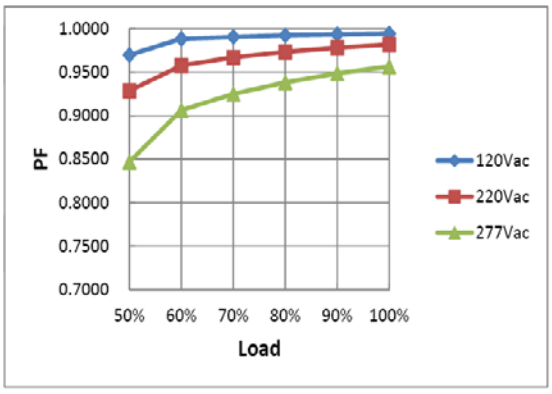
Derating Curve

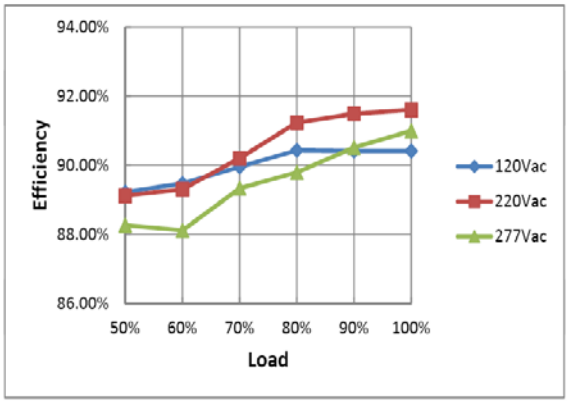




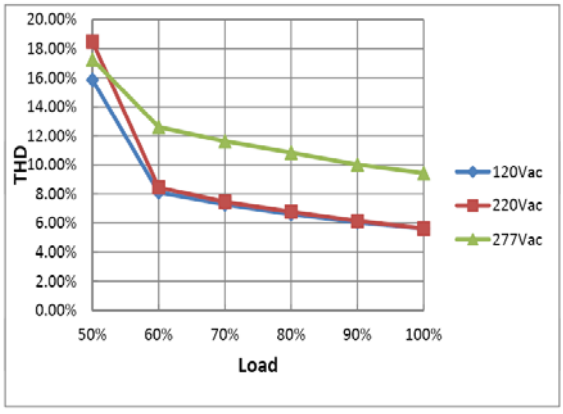
Power Factor VS. Load Curve



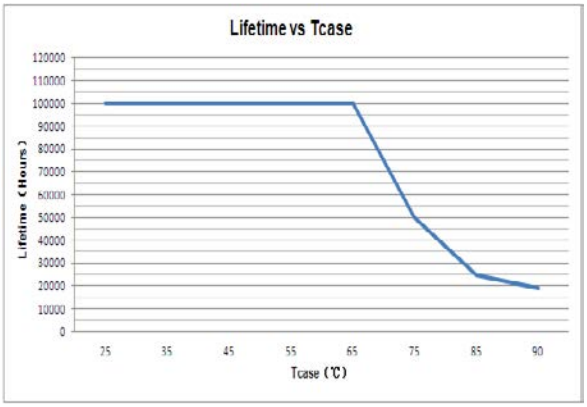
Efficiency VS. Load Curve



THD Curve



Life Time VS. Tcase (Ref.)



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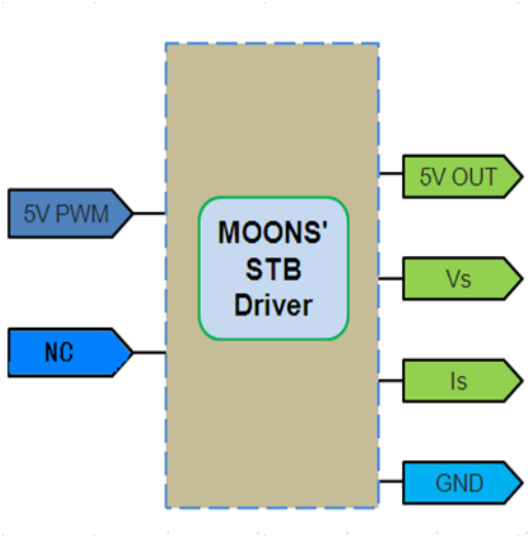
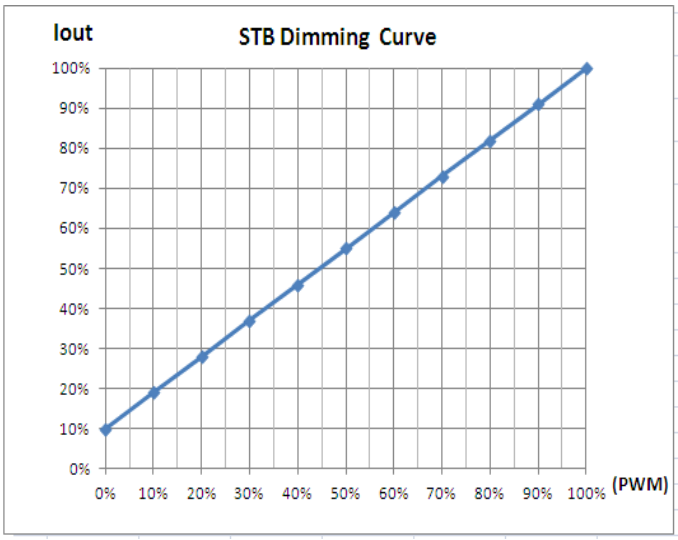
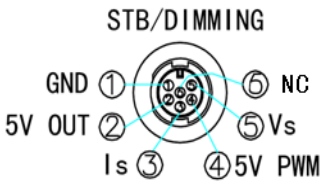
**The dimmer control may be operated from an input signal of 5V PWM(frequency：500Hz~5kHz,duty cycle：0%~10
Recommended implementations are provided below.**

STB dimming connection diagram and dimming curve





Dimming Interface Description



Pin	Name	Description
1	GND	DC Ground
2	5V OUT	DC Supply 0uput
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	

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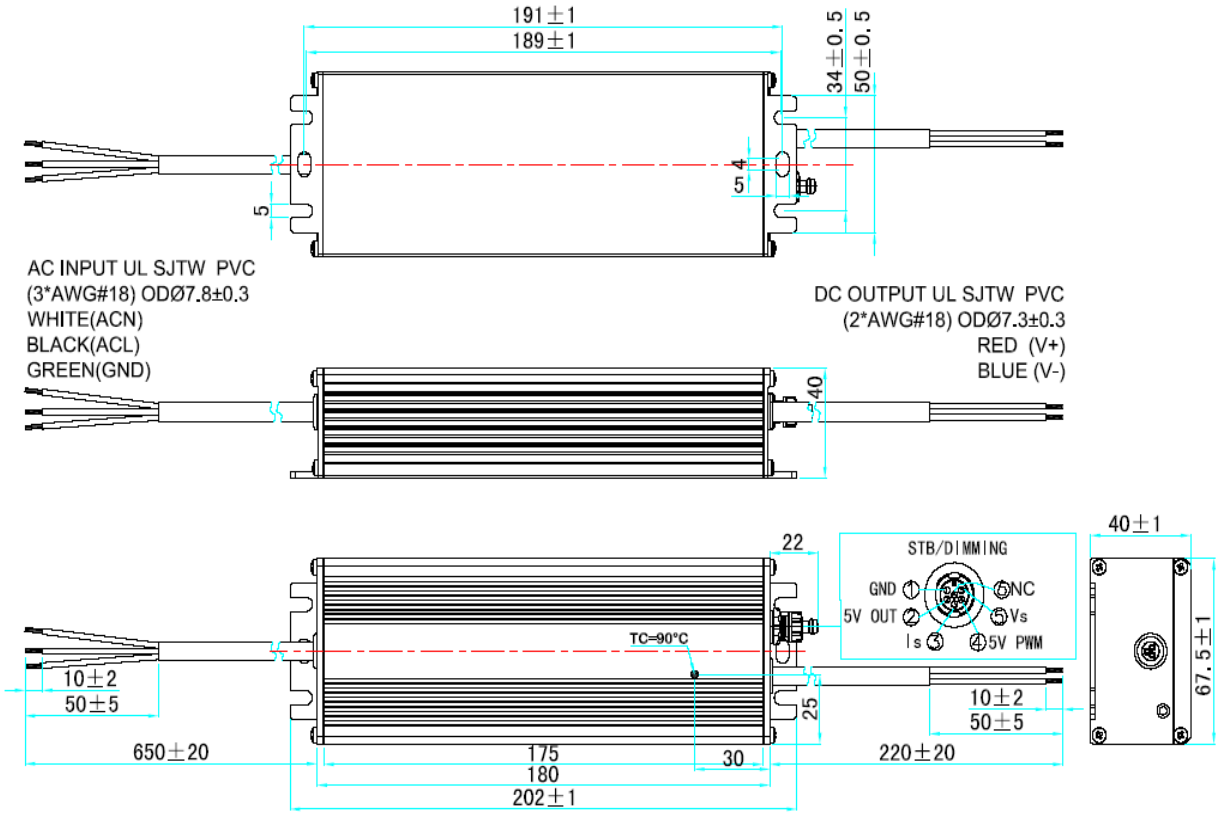
■ Mechanical Specification

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 apporval for claas II	RUBBER CCC+VDE 60245 IEC57 YZW/H05RN-F	BROWN/L BLUE/N	2*1.0mm^2 ODΦ 6.8± 0.3mm	RUBBER CCC+VDE 60245 IEC57 YZW/H05RN-F	Brown/+ Blue/-	2*1.0mm^2 ODΦ 6.8± 0.3mm
UL apporval	UL SJTW PVC	BLACK/L WHITE/N GREEN/GN	3*AWG#18	UL SJTW PVC	RED/+ BLUE/-	2*AWG#18
PSE apporval	PSE HVCTF/VCTF/VCTFK PVC	BLACK/L WHITE/N YE-GN/GND	3*0.75mm^2 ODΦ 6.8± 0.3mm	PSE HVCTF/VCTF/VCTFK PVC	WHITE/+ BLACK/-	2*0.75mm^2 ODΦ 6.7± 0.3mm
CCC/CB/CE apporval	RUBBER CCC+VDE 60245 IEC57 YZW/H05RN-F	BROWN/L BLUE/N YE-GN/GND	3*1.0mm^2 ODΦ 7.3± 0.3mm	RUBBER CCC+VDE 60245 IEC57 YZW/H05RN-F	Brown/+ Blue/-	2*1.0mm^2 ODΦ 6.8± 0.3mm

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