

## MU060HxxxAQ\_STB Series

#### **General - Outdoor**

DWG NO.: MSSD-4496

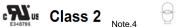
■ Features · Input voltage: 90-305VAC

· Built-in active PFC function: 0.99 Typ.

· Low THD: 10% Typ.

· High efficiency: 91% Typ.

- $\cdot$  IP67 design for indoor or outdoor installations
- · High surge immunity
- Support 5V PWM dimming function and on/off function
- · Compliance to worldwide safety regulations for lighting
- · Suitable for dry/damp locations



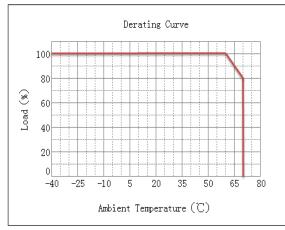


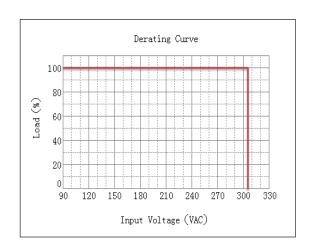
■ Speci																	
() (	Model	035	045	053	070	075	105	140	175	180	210	245	280	315	350	420	500
(M	IU060HXXXAQ_STB)	0001	2001	200/	2001	000/	000/	2001	2001	070/	070/	0.50/	050/	0.40/	000/	000/	
	Efficiency(110Vac)(Typ.) <sub>Note.1</sub>	90%	90%	90%	89%	89%	89%	88%	88%	87%	87%						81%
	Efficiency(220Vac)(Typ.) <sub>Note.1</sub>	91%	91%	91%	90%	90%	90%	89%	89%	88%	88%		l	l	84%	83%	82%
	Voltage Range (V) <sub>Note.2</sub>				90 ~ 30	5Vac, OR	127~ 430\	/dc (Derati			er low inpu	ts, Refer to	o 'Derating	Curve')			
	Voltage Rate (V) <sub>Note.2</sub>									:-277Vac				85% 84% 83% 82% 86% 85% 84% 83% Derating Curve')  a current to Noise Filter for less than 10~21 9~19 8~17 7~14 2800 3150 3500 4200 58.80 59.85 59.50 58.80 59.85 59.50 58.80 for its removed discoil is rem			
	Frequency Range (Hz)	47-63															
		0.99 (Typ.) with 70%~100% load,at 110Vac 0.97 (Typ.) with 70%~100% load,at 220Vac															
Input	Power Factor(Typ.)						(					c		85% 84% 83% 82% 86% 85% 84% 83%  Derating Curve')  3 In current to Noise Filter for less than 0 10~21 9~19 8~17 7~14 2800 3150 3500 4200 58.80 59.85 59.50 58.80  25 23 21 17 Ition is removed tion is removed dia.  Ition to remove dia.  Ition to remove dia.  Ition to remove dia.  Ition is removed dia.			
										0% load,a					4% 83% 82% 5% 84% 83% re')  oise Filter for less than 0.2r  19 8~17 7~14 50 3500 4200 85 59.50 58.80  23 21 17 and and and and are		
	THD(Typ.)					4											
						13	5% Typicai					ad conditio	ons				
	AC Current(Typ.)	0.8A at 110VAC input, 0.4A at 220VAC  50A 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 0.2ms)															
	Inrush Current(Max.)	50/	4 at 230Va	ic input 25	C Cold Sta	art ( time v	vide=500us					for the inru	ish current	to Noise	83% 82% 83% 84% 83% 84% 83% 84% 83% 82% 84% 83% 83% 82% 84% 83% 83% 82% 84% 83% 84% 83% 82% 84% 83% 84% 83% 82% 84% 83% 84% 83% 84% 84% 84% 84% 84% 84% 84% 84% 84% 84	ss than 0.2	2ms)
	Leakage Current(Max.)	05.470			10.00	40.00	00 50	,		77Vac/60I		40.05	40.04				1
	Voltage range (V)	85~170	ļ		43~86	40~80	29~58	21~43	17~35	17-33	14~29						6~1
	Rated Current(mA)	350	450	530	700	750	1050	1400	1750	1800	2100						5000
	Rated Power (W)	59.50	60.30	59.89	60.20	60.00	60.90	60.20	61.25	59.40	60.90		58.80	59.85	59.50	58.80	60.0
	Ripple&Noise Current( Typ.)						≤30%(	(PK-AV) /			mode and	full load)	85% 84% 83% 86% 85% 84% to 'Derating Curve')  siscons  ush current to Noise Filter for less to the current to Noise Filter for				
Output	Current Tolerance <sub>Note.5</sub>	±5%															
	Line Regulation	±1%															
	Load Regulation	±3%															
	Current ADJ. Range	10% to 100%, continuously adjustable															
	Turn on delay Time							<1.5s, a	t 110Vac;	<0.75s, a	220Vac					82% 83% 83% ss than 0 7~14 4200 58.80	
		180	142	120	92	86	63	48	40	38	33	29	25	23	21	17	15
	Over Voltage(V)		Protection type: Limit the output voltage, recovers automatically after fault condition is removed														
	Over Current				Protec	ction type	constant	current limi	ting recov	ers autom	atically afte	er fault con	dition is re	moved	oved		
Protection	Short Circuit				110101									85% 84% 83% 829 86% 85% 84% 839 erating Curve')  current to Noise Filter for less than 0~21 9~19 8~17 7~1 2800 3150 3500 420 8.80 59.85 59.50 58.8  25 23 21 17 on is removed on is removed cop to normal temperature			
	Short Circuit									•							
	Over temperature			Thono	war aunnh									armal tame	ooroturo		
	On a ratio a Tanan			The po	wei suppiy	y Should re	Sume its ii					JIE OI PSC	r drop to no	Jimai tem	perature		
	Operating Temp.							-40~+70		to 'Derating	g Curve )				4% 83% 82% 84% 83% re')  oise Filter for less than 0.  19 8~17 7~14 50 3500 4200 85 59.50 58.80  23 21 17 ed  ded		
	Tc									max							
Environment	Operating Humidity									5%RH				85% 84% 83% 82 86% 85% 84% 83 Berating Curve')  current to Noise Filter for less that a current to Noise Filter for less that			
	Storage Temp., Humidity									, 10-95%F	Н						
	Temp. Coefficient									( 0~50°C )		· · · ·			83% 82% 84% 83% 82% 84% 83% 82% 84% 83% 82% 84% 83% 82% 84% 83% 82% 82% 82% 82% 82% 82% 82% 82% 82% 82		
	Vibration															82% 83% 83% ss than 0.20 7~14 4200 58.80	
	Safety Standard				UL8750, U	JL1012,UL							347-1, EN	51347-2-1	3		
Safety &	Withstand Voltage																
EMC	Isolation Resistance												ons itions  onush current to Noise Filter for less than 0.2n  5				
EMC Emission		EN55015/FCC Part 15 Class B, EN61000-3-2 Class C, EN61000-3-3  EN61000-4-2,3,4,5,6,8,11, EN61547 ( Surge: L-N 4KV, L/N-Earth 6KV )															
	EMC Immunity				I	EN6	1000-4-2,3							,,	.,	.,	
UL Level	UL,CUL class 2							V	V	V	V	V	V	V	V	82% 83% 83% 83% 7~14 4200 58.80	V
	NON-UL,NON-CUL class 2	V	V	V	V	V	V		<u> </u>	<u> </u>	l						
	MTBF											•					
Others	Lifetime						50,000 Ho		•			8% 87% 86% 85% 84  winputs, Refer to 'Derating Curve' )  110Vac  220Vac  Vac 6 load conditions  0% load conditions  1VAC  cable for the inrush current to Noise Filter for the					
	Dimension							173 x		(mm) ( Lx	WxH )		85% 84% 83% 82 86% 85% 84% 83 b 'Derating Curve' )  sh current to Noise Filter for less that 10~21 9~19 8~17 7~2800 3150 3500 420 58.80 59.85 59.50 58.  25 23 21 1 dition is removed dition is removed dition is removed red.  n drop to normal temperature  axes 347-1, EN61347-2-13  3-3 6KV )  V V V V V				
	Weight								0.8	80kg					84% 83% 82% 85% 84% 83% urve')  Noise Filter for less than 0.  9~19 8~17 7~14 3150 3500 4200 59.85 59.50 58.80  23 21 17  oved  oved  hal temperature		

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 220VAC input, rated load and 25°C of ambient temperature; Note. 4: see UL Level; Note.5: Includes set up tolerance, line regulation and load regulation.

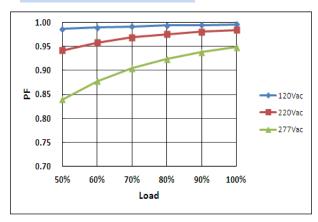
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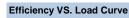


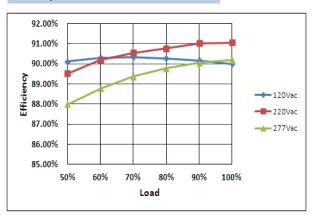




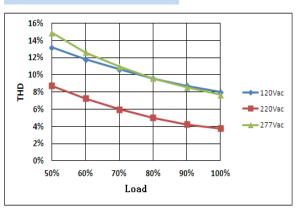
#### Power Factor VS. Load Curve



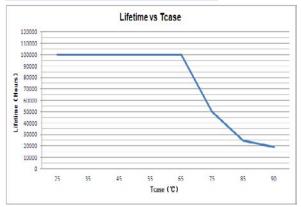




#### THD Curve



#### Life Time VS. Tcase (Ref.)



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Add: No.168, Mingjia Road, Shanghai 201107, P.R.China Tel: +86 (0)21 52634688 Website: www.moons.com.cn

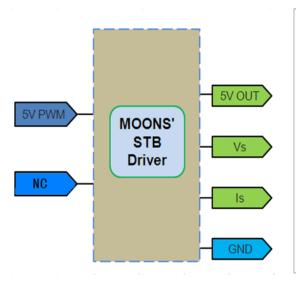


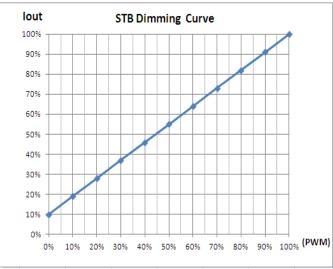
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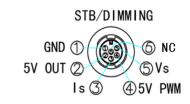
The dimmer control may be operated from an input signal of 5V PWM(frequency: 500Hz~5kHz,duty cycle: 0%~10 Recommended implementations are provided below.

#### 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.	Тур.	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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# **ONS'** MU060HxxxAQ\_STB Series

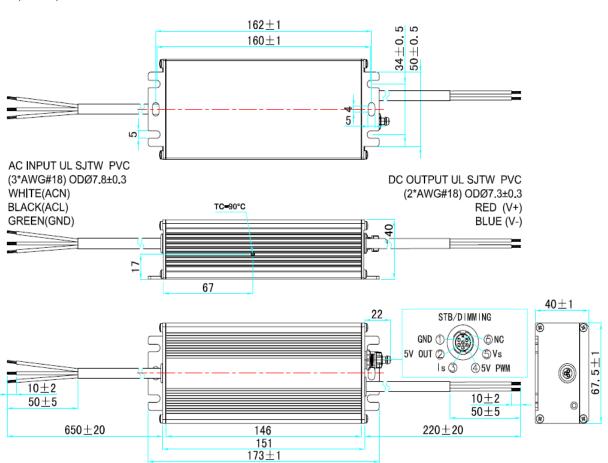
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#### ■ Mechanical Specification

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				
Troducts	Wire Type	Assignmen	Description	Wire Type	Assignmen	Description		
		BLACK/L			RED/+			
UL apporval	UL SJTW PVC	WHITE/N	3*AWG#18	UL SJTW PVC	BLUE/-	2*AWG#18		
		GREEN/GI						

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