



- **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 and on/off function
 - Compliance to worldwide safety regulations for lighting
 - Suitable for dry/damp locations



Class 2

Note.4



■ **Specification**

Model		035	045	053	070	105	140	175	210	245	280	315	350	420	500
(MU075HxxxAQ_STB)															
Input	Efficiency(110Vac)(Typ.) _{Note.1}	90%	90%	89%	89%	89%	88%	88%	87%	87%	86%	86%	85%	85%	84%
	Efficiency(220Vac)(Typ.) _{Note.1}	91%	91%	90%	90%	90%	89%	89%	88%	88%	87%	87%	86%	86%	85%
	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 70%~100% load,at 110Vac													
		0.96 (Typ.) with 70%~100% load,at 220Vac													
		>0.9 with 75%~100% load,at 277Vac													
	THD(Typ.)	10% Typical, at 220Vac input, with 70%~100% load conditions													
		15% Typical, at 110/277Vac input, with 70%~100% load conditions													
	AC Current(Typ.)	1A at 110VAC input, 0.5A at 220VAC													
Output	Inrush Current(Max.)	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 0.2													
	Leakage Current(Max.)	0.75mA at 277Vac/60Hz													
	Voltage range (V)	107~214	83~166	71~142	54~108	36~72	27~54	21~43	18~36	15~31	13~27	12~24	10~20	9~18	7~15
	Rated Current(mA)	350	450	530	700	1050	1400	1750	2100	2450	2800	3150	3500	4200	5000
	Rated Power (W)	74.90	74.70	75.26	75.60	75.60	75.60	75.25	75.60	75.95	75.60	75.60	75.00	75.60	75.00
	Ripple&Noise Current(Typ.)	≤30%((PK-AV) /AV) with LED default mode and full load)													
	Current Tolerance _{Note.5}	±5%													
	Line Regulation	±1%													
	Load Regulation	±3%													
	Current ADJ. Range	10% to 100%, continuously adjustable													
Protection	Turn on delay Time	<1.5s, at 110Vac; <0.75s, at 220Vac													
	Over Voltage(V)	217	180	146	112	76	57	46	39	34	30	27	23	21	18
	Over Current	Protection type : Limit the output voltage , recovers automatically after fault condition is removed													
	Short Circuit	Protection type : constant current limiting, recovers automatically after fault condition is removed													
	Over temperature	Hiccup mode, recovers automatically after fault condition is removed. When the Tc of PSU rise to 110℃(Typ.), the PSU will shutdown The power supply should resume its normal operation when the inside temperature of PSU drop to normal temperature													
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℃)													
Safety & EMC	Vibration	10~500Hz, 5G 12min/cycle, period for 72min each along X、Y、Z axes													
	Safety Standard	UL8750, UL1012,UL1310, CSA-C22.2 NO. 107.1,CSA-C22.2 NO. 223-M91, 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 Class B, EN61000-3-2 Class C, EN61000-3-3													
UL Level	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547 (Surge: L-N 4KV, L/N-Earth 6KV)													
	UL,CUL class 2						V	V	V	V	V	V	V	V	V
	NON-UL, NON-CUL class 2	V	V	V	V	V									
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	173 x 67.5 x 40 (mm) (LxWxH)													
	Weight	0.82kg													

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 Refer to 'Derating Curve'; Note. 3: All parameters NOT specially mentioned are measured at 220VAC input , rated load and 25℃ of ambient temperature ; Note.4: see UL Level; Note.5: Include regulation and load regulation.

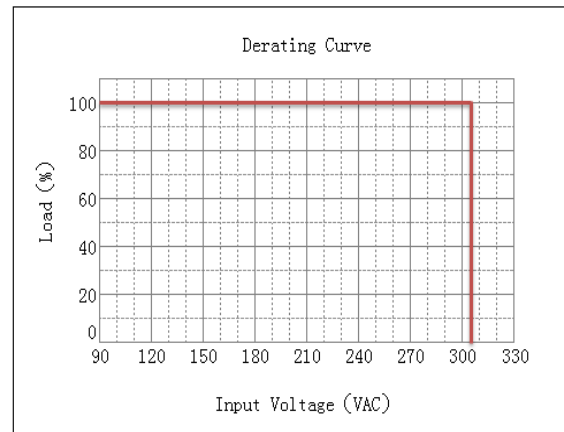
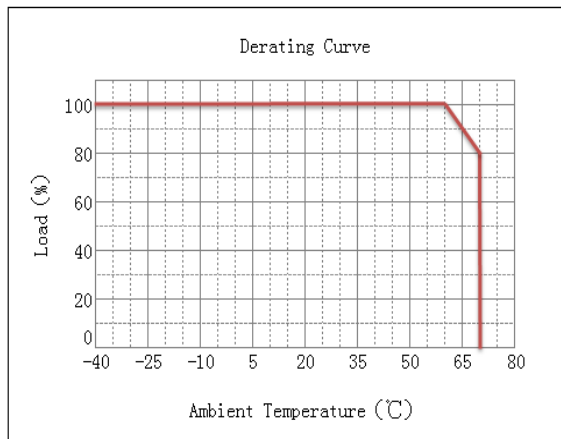
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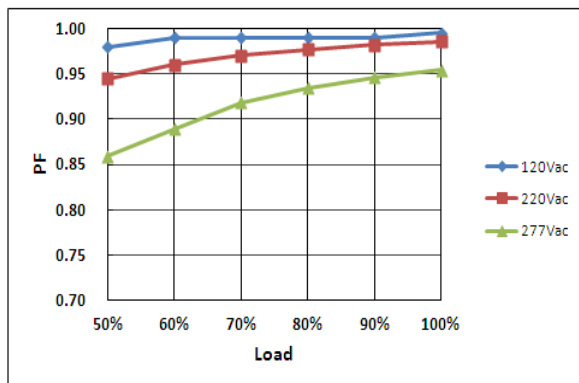
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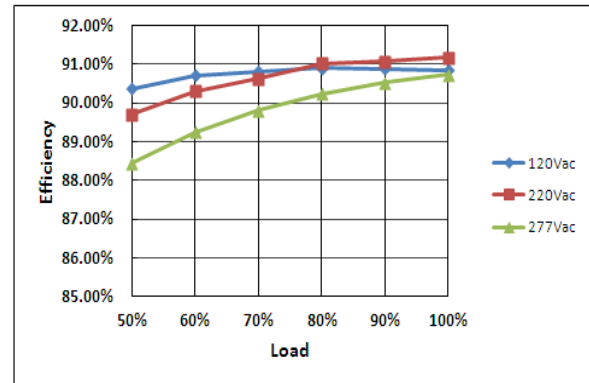
Derating Curve



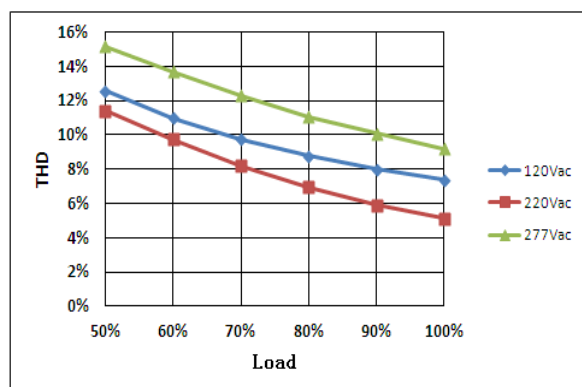
Power Factor VS. Load Curve



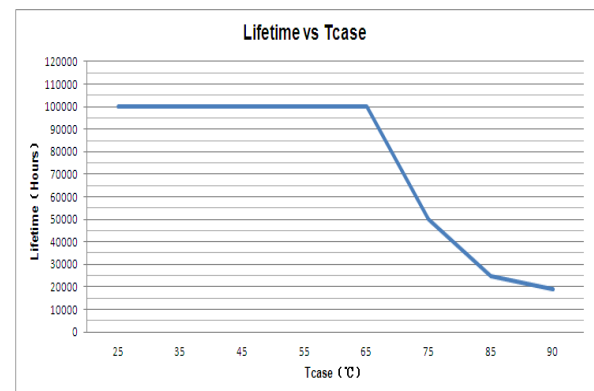
Efficiency VS. Load Curve



THD Curve

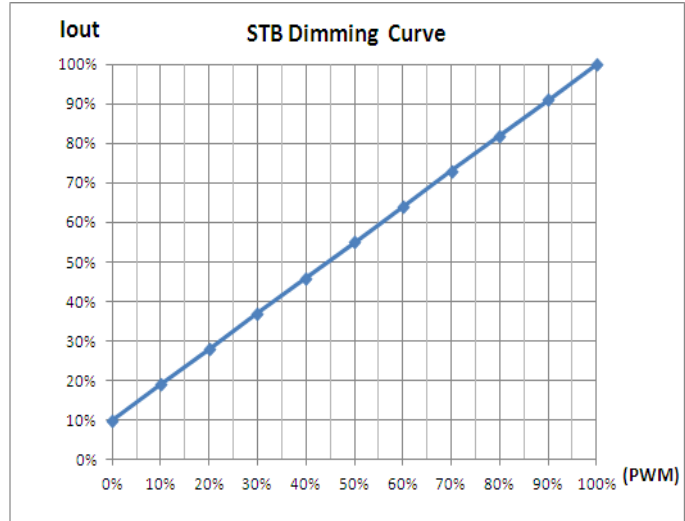
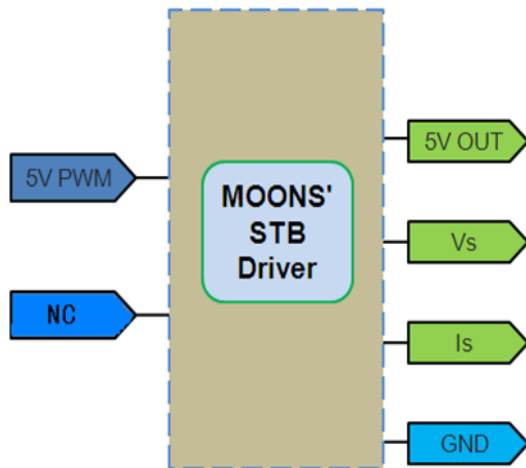


Life Time VS. Tcase (Ref.)



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

	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:

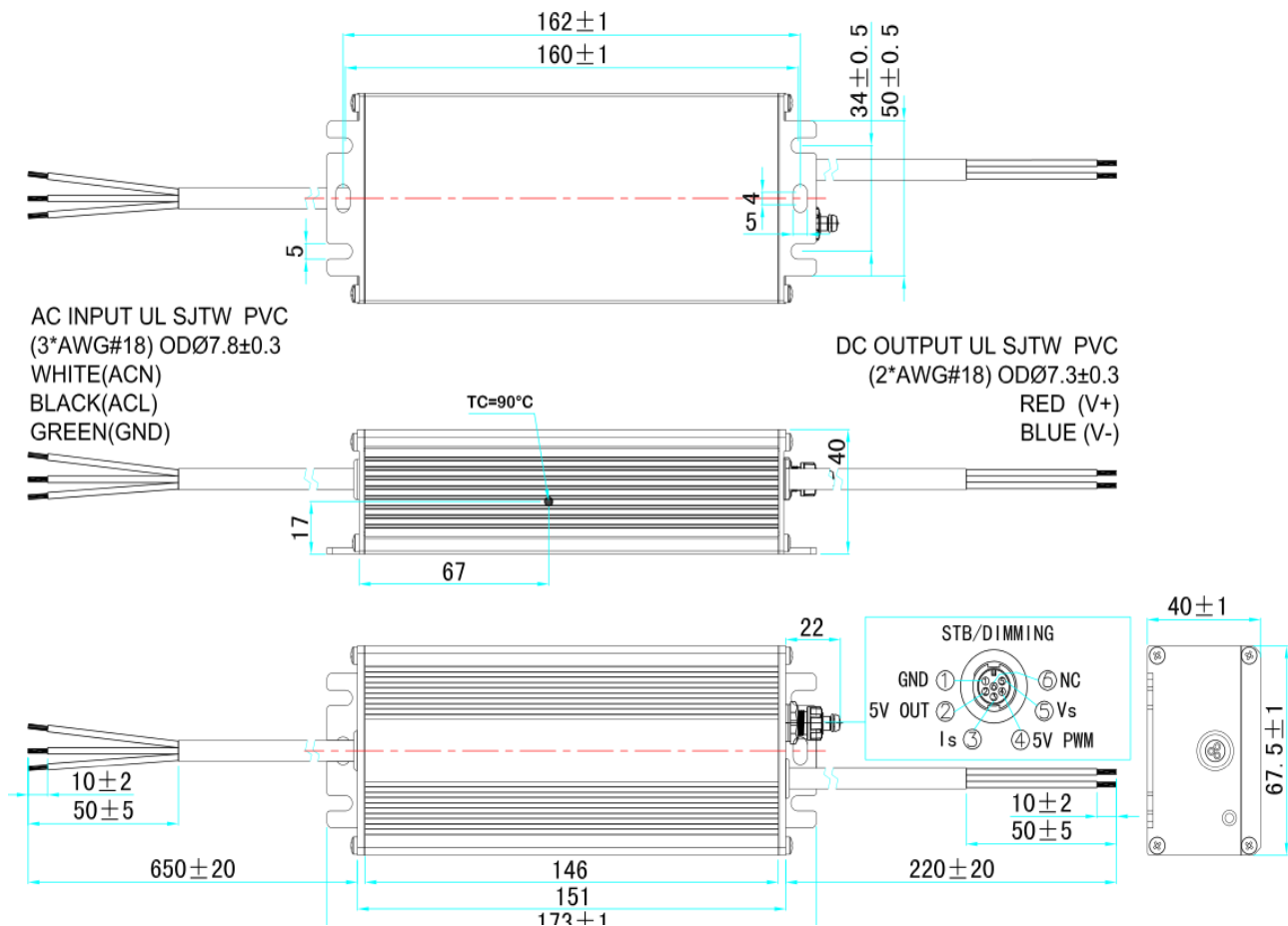
- A、Dimming levels: 10% to 100%, continuously adjustable.
- B、Status query: output voltage/current status query.
- C、Output: 5V 300mA.

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
UL approval	UL SJTW PVC	BLACK/L	3*AWG#18	UL SJTW PVC	RED/+	2*AWG#18
		WHITE/N			BLUE/-	
		GREEN/GN				

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